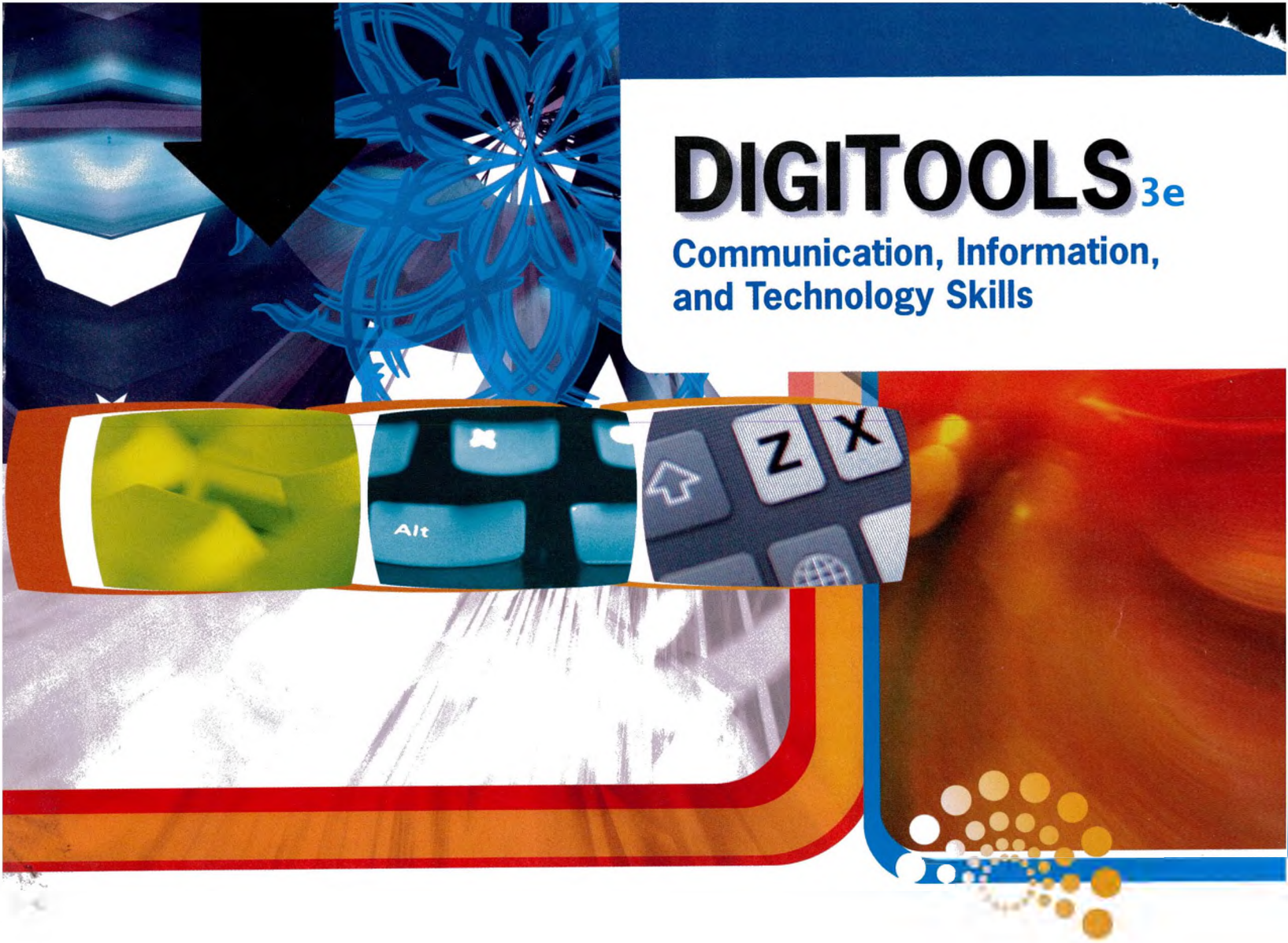


DIGITOOLS 3e

Communication, Information, and Technology Skills

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Preface

Each new technological advance promotes new ways of thinking, working, communicating, and learning. With each new step forward we have the opportunity to be more efficient, better educated, and more prosperous. That is, of course, if we learn how to use these fabulous technologies effectively.

The digital world is changing at lightning speed. Who would have thought a few short years ago that the most popular computer would be the smartphone in the palm of your hand? In addition, the world's information and knowledge is rapidly streaming its way online. Today, full-time access to online information is essential for you as a student and to you as a future career professional.

And people are more demanding than ever before. They want instant access to the information they need wherever they happen to be and on whatever ***DigiTool*** (or *digital communication tool*) they happen to be using. They want access from their mobile smartphones, laptops or iPads; and on their desktop PCs at work or from the computer lab at their local schools. This book will help you cut through the digital clutter to learn the digital communication tools of value to you. To be effective in the digital online world, you must master these skills:

Software Application, App, and Gadget Skills. Software gives life to digital devices. They go by many names: programs, applications, browsers, apps, and gadgets. The sweet part is that there is an app for just about anything you want and need to do. And the best apps run on desktop and laptop computers as well as iPads and smartphones. In other words, if you can use an app on any one of these DigiTools, you can use them on your other devices as well.

Input Skills. Simply speaking, input is the way you communicate with your software applications, apps, and gadgets. You can use a keyboard, text with your thumbs, click apps with a mouse, talk to your computer through a microphone, write on your computer with a digital pen, or use your fingertips to tap and flick your way around the information and apps you need.

Career and Academic Applications Skills. How do professionals use their DigiTools? They apply their software and input skills to on-the-job problems and solutions. In this text you will apply the skills you learn to realistic work situations. To help you discover the tens of thousands of different careers paths you can take in your life, you will learn about the 16 Career Clusters defined by the U.S. Department of Education. Learning all about the 16 clusters will help you plan your future career.

In the Cloud Communication Skills. There is a big difference between knowing the many features of a software program and having the ability to create dynamic, creative, and meaningful communications. Increasingly, you must know how to communicate and share in the cloud, which means communicating online through the Internet. To help you learn more about the cloud, read the *Into the Cloud* features found in many chapters.

You may discover that you already know something about the technologies that you will study. Share your knowledge with those around you so that everyone can succeed together. As you learn more, you will become more self-confident. You will soon be applying your new skills in exciting ways. Remember, always take the next step. Soon, you will be surprised at how much you have achieved and how far you have journeyed.

Contents

Chapter 1 *Technology Skills for Life, Career, and Academic Success*

Digital Life in the 21st Century 1
Lesson 1-1: Micro-Intelligence 1
Digital Brains 2
Digital Communications Model 3
Passwords for Your Protection 3
Acceptable Use Policies 5
Lesson 1-2: Operating System Know-How (for XP, Vista, and Windows 7 Users) 6
Your Computer, Inside and Out 6
Take Control with Your Operating System 7
Do Not Default to the Ordinary 9
Powerful Peripherals 11
Lesson 1-3: Application Know-How (for XP, Vista, or Windows 7 Users) 13
Extraordinary (and Free) Windows Applications 13
Start Searching for apps and Control Panels 17
Lesson 1-4: Windows 7 Extra Know-How 18
Windows 7 Shakes Things Up 18
Snap, Shuffle and Pop 20
Gaudy Gadgets and Awesome apps 22
Lesson 1-5: Library, Folder, and File Management Know-How 23
Storage Media 24
About Files and Folders 25
Creating, Saving, and Storing Files 27
Opening, Renaming, and Saving Data Files 29
Managing Your Files 31
Into the Cloud
Chapter Review 34

Chapter 2 *Digital Information, Access, and Search Skills*

Jump into the Cloud 40
It's All Inside the Intranet 41
Lesson 2-1: A Browser Bonanza 41
Browser Brilliance 42
Hyperlinking a Path through the Net 42
Follow the Path to the Mission 43
Teamwork in Exploring Mission-Critical Departments 45
Rapidly Remembering Your Web Resources 47
Lesson 2-2: Searching Online Resources 48
Search: The Ultimate Online Research Tool 49
First Search 50
Analyzing Search Results 51
Phrase Searching, Stemming, and Insignificant Words 52
Fun Ways to Search 53
Lesson 2-3: E-mail, Your Passport to the Cloud 56
E-mail and E-mail Passwords and Logins 56
Establishing an E-mail Account 57
Making E-mail Easy 59
Into the Cloud
Chapter Review 62

Chapter 3 *New Key Learning Skills*

Input Technologies for the 21st Century 66
Why Use a Keyboard? 67
Lesson 3-1: Home Keys (fdsa jkl;) 67
Work-Area Arrangement 67
Keying Position 68
Keystroking and Space Bar 69
Enter Key 69
Lesson 3-2: Review 71
End-of-Class Routine 72
Lesson 3-3: New Keys h and e 73
Plan for Learning New Keys 73
Lesson 3-4: New Keys i and r 75
Lesson 3-5: Review 77
Lesson 3-6: New Keys o and t 78
Lesson 3-7: New Keys n and g 80
Lesson 3-8: New Keys Left Shift and . (period) 82
Lesson 3-9: Review 84
Lesson 3-10: New Keys u and c 86

Lesson 3-11: New Keys w and Right Shift 88
Lesson 3-12: New Keys b and y 89
Find Words Keyed Score 91
Lesson 3-13: Review 92
Lesson 3-14: New Keys m and x 93
Lesson 3-15: New Keys p and v 95
Lesson 3-16: New Keys q and , (comma) 97
Lesson 3-17: Review 98
Lesson 3-18: New Keys z and : (colon) 101
Lesson 3-19: New Keys CAPS LOCK and ? (question mark) 102
Lesson 3-20: New Keys TAB and BACKSPACE 104
Into the Cloud
Chapter Review 108

Chapter 4 **Powerful Presentations**

Eight Keys To Great Presentations 116
Lesson 4-1: The Eight Keys To Powerful Presentations 117
Message & Purpose—Audience & Impact 117
Boundaries & Guidelines 120
Readability 123
Lesson 4-2: Adding Visual Appeal 125
Adding Multiple Media 125
Accessibility & Visual Appeal 126
Apply Visual Appeal 128
Lesson 4-3: Researching, Taking Notes, And Planning 131
Research, Take Notes, & Plan 131
Storyboarding from General to Specific 133
Lesson 4-4: Polishing Your Presentation Skills 137
Play and Proofread Your Show 137
In Perfect Order 138
Tricky Transitions 139
Automatic and Continuous Play 140
Recording Your Slide Show 141
Present With Style & Personality 142
Into the Cloud
Chapter Review 145

Chapter 5 **Word Processing Skills**

Word in the Academic and Business Worlds 151
Lesson 5-1: The Word User Interface 152
Learn the Word User Interface 152
Your View on the Word World 155
Lesson 5-2: Apply the Eight Keys of Great Communication 156
Managing the Media and Impressing the Press 157
Boundaries & Guidelines: The Status Bar 157
Proofing & Accuracy: Check Spelling and Grammar 159
Add Words to Your Dictionary 160
Lesson 5-3: Format with the Ribbon and Mini Toolbar 161
Use the Home Tab's Formatting and Accessibility Tools 161
Make a Strong Visual Presentation 163
Center, Align, and Justify Text to the Margins 165
Apply Styles to Your Media Kit 171
Lesson 5-4: Format Business Documents 173
Memorable Memos 173
What Happens When a Memo Falls Short 175
Fixing the Memo 177
Numbered Lists 178
Set Tab Markers on the Ruler 179
Lesson 5-5: Correct and Format Business Correspondence 184
Accuracy Matters 184
Collaboration Tools and Proofreader Marks 185
Making Corrections to Correspondence 186
Long Live the Letter 187
You Can Format It 188
Modified Block Style 190
Address an Envelope 191
Block Style Letter with Open Punctuation 192
Lesson 5-6: Build Informative Tables 193
Terrific Tables 193
Improve Your Tables 196
Complex Tables 197
Colors, Shading, and Symbols 200
Advance Your Agenda 202
Into the Cloud
Chapter Review 205

Chapter 6 **Smart Spreadsheet Skills**

Spreadsheet Know-How 209
Lesson 6-1: Exploring Excel 210

All About Excel 210
Moving Around a Spreadsheet 211
Spreadsheet Data Types 212
Adding Data with Auto Fill 213
Adding Numerical Values and Dates and Formatting Data 215
Lesson 6-2: The Power of Formulas 216
Spreadsheet Formulas and Operators 216
Using Cell References in Formulas 218
Calculating Conversions 220
Lesson 6-3: More Customizing and Converting Skills 222
Rename Worksheet Tabs 222
Converting to Metric Measurements 223
Converting Fahrenheit to Celsius 225
Converting Formats 226
Lesson 6-4: Flowing Forms and Fantastic Functions 229
Functional Formulas 229
Calculating Costs, Profits, and Totals 231
Making the Case with Graphs and Charts 232
Using Charts in Decision Making 235
Use Charts to Help You Make Decisions 236
Using Spreadsheets for Everyday Activities 237
Into the Cloud
Chapter Review 239

Chapter 7 *Easy Access Database Skills*

Database Know-How 244
Lesson 7-1: Exploring a Database 244
What Is a Database? 244
Friendly Forms 248
Forms Design 250
Lesson 7-2: Creating a Contacts Database from a Template 252
What Is a Template? 253
Graphics in Forms 256
Lesson 7-3: Sorting, Filtering, and Reporting 260
Sorting from A to Z 261
Block Out Data by Filtering 262
Reliable Report 263
Query 267
Into the Cloud
Chapter Review 270

Chapter 8 *Digital Image Imagination Skills*

Image Is Everything 274
Lesson 8-1: Scan and Enhance Digital Graphics 274
Rasters, Bitmaps, Vectors, and Dots 275
Save the Image in Either a Web or Printed Format 276
Image Selection 276
Scanner Basics 277
Position the Image 277
Preview, Adjust, and Scan the Image 278
Scan an Image with Your OS Software 278
Using Windows Live Photo Gallery to Improve Images 283
Image Options in Photo Gallery 285
Scanning Photos with Grayscale 288
Lesson 8-2: Capture Images From a Camera to a PC 291
Snap, Snap, Snap 292
Many Marvelous Megapixels 292
Get to Know Your Camera's Settings 293
Downloading Images to Your PC 294
Lesson 8-3: Manipulate Graphics in Documents 297
Manipulating Graphics 297
Picture It in 3-D 299
Adjusting the Contrast, Brightness, and Color Variation 301
Reset, Switch out, and Experiment with Your Graphics 303
Chapter Review 305

Chapter 9 *Desktop Publishing Skills*

Desktop Publishing Alternatives 309
Lesson 9-1: Introducing Desktop Publishing 310
Beginning with Microsoft Publisher 310
Adding an Image to a Publication 314
Lesson 9-2: Applying Clip Art and Element Priorities 316

Find and Position Clip Art 316
Using Clip Art 317
Use WordArt 319
Lesson 9-3: Creating Practical Publications with Publisher 323
Totally Practical Business Templates 323
Dazzling Business Cards 324
Super Certificates 327
Making the Best of a Bad Situation 329
Press Release for a New Media Website 330
Creating a Report Title Page 331
Save a File in PDF Format 332
Into the Cloud
Chapter Review 335

Chapter 10 **Report and Document Formatting and Publishing Skills**

Academic Versus Business Reports 341
Lesson 10-1: Format Academic Reports 341
First, Think About Your Audience 342
Error-Free Academic Report Formats 342
In-Text Citations and Works Cited Pages 347
Creating a Cover Page 350
Lesson 10-2: Apply MLA Citation Rules, Tools, Styles, and Formats 351
Unraveling Confusing Citation Standards 351
Gathering Information for Print and Web Citations 352
Keep Current Within the Cloud Citation Tools 358
Lesson 10-3: Format Business-Ready Reports and Documents 361
Design a Professional-Looking Report 362
Inserting Excel Graphs and Charts 365
Use Excel to Help Solve Math Problems 366
Design a Professional-Looking Press Release 368
Experiment with WordArt 370
Into the Cloud
Chapter Review 372

Chapter 11 **Website Creation Skills**

Revealing the Secrets of the Net 377
Lesson 11-1: Learn How HTML Code Works 378
Why Learn HTML? 378
How HTML Works 379
What to Use 379
Save and View Your HTML Page 380
Using Headings 384
Numbered and Bulleted Lists 386
Lesson 11-2: Apply XHTML and CSS Attributes and Values 388
XHTML and Deprecation 388
Horizontal Rules and Breaks with Single Tags 390
Apply More Attributes and Values 392
Adding Color Attributes and Values 393
Coloring Text with CSS 395
Lesson 11-3: Create Hyperlinks 397
Hyperlinks Inside Your Document 397
Creating Hypertext Links to the Web 399
Lesson 11-4: Add Images to Web Pages 401
Downloading and Inserting Graphics 401
Pictures of All Sizes 403
Into the Cloud
Chapter Review 407

Chapter 12 **Online Apps and Gadget Skills**

There is an App for That 412
Lesson 12-1: Building Personal New Media Spaces with Apps and Gadgets 413
Apps and Gadgets 413
Select a Topic of Personal Interest 414
Places for Your Personal Apps and Gadgets 415
Lesson 12-2: Build a Personal New Media Website with Apps 420
Building Your Own Google Sites 420
Before You Create, Apply the Eight Principles 421
Creating a Website 422
Add New Pages with Specifics About Your Project 428
Lesson 12-3: Add Calendar and Map Gadgets to Your Site 430
Pivotal Time Management Skills 430
Into the Cloud
Chapter Review 438

Chapter 13 Drawing, Sketching, and Note-Taking Skills

Write, Sketch, and Draw Your Notes 442
Note Taking: A Lifelong Skill 442
Lesson 13-1: Create OneNote Notebooks, Sections, and Pages 444
What is OneNote? 444
How OneNote Works 444
Lesson 13-2: Add Outlines, Change Fonts, and Add Color and Highlights to Notes 451
Using Outlines and Drawing Tools for Note Taking 451
Adding Space and Data 452
Changing the Appearance of Pages 455
Lesson 13-3: Capture Online Notes; Sketch, Handwrite, and Search Notes 457
Handwritten Notes and Drawing Tools 457
Creating Subpages for Drawings 458
Translate Handwritten Notes 459
Downloading From the Cloud to OneNote 460
Draw on a Picture 461
Google-Like Search Tools 462
Chapter Review 463

Chapter 14 Online Teamworking Skills

Set Up a Startup 468
If They Can Do It, So Can You 468
Lesson 14-1: Starting Up a Corporate Communications System in the Cloud 469
What Your Team Is About To Do 469
Start Up Your Communications 469
IT Communications Apps: Microsoft or Google? 470
Investigate Google Apps in the Cloud 471
Editing a Single Google Doc in the Cloud 474
Investigate Microsoft's Apps in the Cloud 476
Make a Team Decision on Your IT Communications Intranet 479
Lesson 14-2: Create a Business Plan as a Team 480
Brainstorm a Product, a Service, or an Event 480
Writing a Business Plan for Your Startup 483
Your Human Resources & Management Team 483
Your Marketing and Financing Plans 484
Your Legal Plans 486
Lesson 14-3: Preparing for Your Team's Presentation 486
Get Ready for Your Presentation 487
Create a Startup Website 487
Prepare Your Presentation and Post It Online 488
Publish Your Business Plan 489
Prepare to Present 489
Into the Cloud
Chapter Review 492

Chapter 15 Personal and Business Financial Skills

You Are a Financial Powerhouse 496
Lesson 15-1: Taking Stock of High-Tech Financing 497
Take Financial Control 498
Raising Cash for a Company 498
The Google IPO 498
Taking Stock of Stock Indexes 501
Lesson 15-2: Loan and Mortgage Skills 504
Good Debt, Bad Debt 504
Risky Lending and Compound Interest 505
How to Lower Your Interest Payments 505
Apps for Loan Calculations 506
Amortization Tables 507
Local Car Loan Rates 509
Go Green: Compare Electric, CNG, and Hybrid Savings 510
Lesson 15-3: Maintaining Financial Health 511
Maintaining Corporate Health with a CPA 512
Maintaining Personal Financial Health with FICO 513
Making the FICO Public 513
Maintain Tax Health 514
Student Loans 515
Into the Cloud
Chapter Review 518

Chapter 16 Career and Job Search Skills

Department Shopping 522
Lesson 16-1: On-the-Job Teamwork 522
Department Duties and Functions 522
Career Path Choices 524
Examining a Job Description 525
Lesson 16-2: Finding Jobs 526
Does This Description Fit You? 526
The *Occupational Outlook Handbook* 527
Searching For Jobs Online 528
Job Descriptions on Corporate Websites 530
Help Wanted 531
Lesson 16-3: Investigating Salaries and Comparing Jobs 533
Does This Salary Fit You? 533
Compare Potential Jobs 534
Chapter Review 536

Chapter 17 Résumé Building, Applying, and Interviewing Skills

Opening Doorways to Opportunity 542
Lesson 17-1: Previewing and Preparing Job Search Documents 542
Creating a Winning Career Strategy 543
Commit Your Employment Data to Writing 546
Create a Professional E-mail Address 547
Facebook or Web Page 548
Your Cell Phone Message 549
Lesson 17-2: Creating a Chronological Résumé and Application Correspondence and Applying Online 550
Building Your Résumé 550
Target Your Résumé to Your Audience 551
A Letter (or E-mail) of Application 554
Online Applications 556
Lesson 17-3: Preparing Portfolios, Recommendations, and Presentations 558
Starting a Personal Employment Portfolio 558
Rousing Written Recommendations 560
Writing Recommendations for Others 561
Personal Multimedia Show 562
Improving your Résumé 563
Create an Original Résumé Design 564
Demonstrate Your Net-ability: A Personal Career Web Page 565
Lesson 17-4: Preparing for Impressive Job Interviews 566
Accepting an Interview 566
Learn How to Interview 567
Interview Questions 568
During the Interview 570
Interview Rating Scale 571
Chapter Review 572

Appendix A Multi-Touch and Handwriting Recognition for Microsoft Windows 7 (and Windows Vista)*

The great Mouse, Pen, and Finger War App-1
Lesson A-1: Get Going with Gestures, Flicks, and Multi-Touch Tools App-2
Mobile Touch Tablets and Smart Phones App-2
Touch Terms, Mouse Terms App-3
More Positive Gestures App-4
Into the Cloud

Appendix B Microsoft Speech Recognition for Windows 7 or Windows Vista*

About Speech Recognition App-9
Lesson B-1: Up And Running App-10
Some advice Before you begin App-10
Speech: Training and the UI App-11
Lesson B-2: Talking to Your PC App-14
Memorize the Parts of the Speech UI App-14
Say Commands App-16
Open and Close Applications Using Speech App-17
Dictate Text and Delete Text Including Punctuation App-18
Showing and Canceling Numbers App-19
Into the Cloud

*Portions of Appendix A and Appendix B appear only online or on the IRCD.

Appendix C *Number and Symbol Keys*

Learn about Numbers and Symbols App-23

Lesson C-1: New Keys 8 and 1 App-24
Lesson C-2: New Keys 9 and 4 App-25
Lesson C-3: New Keys 0 and 5 App-26
Lesson C-4: New Keys 7 and 3 App-27
Lesson C-5: New Keys 6 and 2 App-28
Lesson C-6: New Keys / and $ App-29
Lesson C-7: New Keys % and - App-30
Lesson C-8: New Keys # and & App-31
Lesson C-9: New Keys (and) App-32
Lesson C-10: New Keys ‘ and “ App-33
Lesson C-11: New Keys _ and * App-35
Lesson C-12: New Keys @ and + App-36
Lesson C-13: New Keys ! and \ App-37
Lesson C-14: New Keys = and [ ] App-38
Lesson C-15: New Keys > and < App-39
Lesson C-16: Numeric Keypad 4, 5, 6, 0 App-40

Numeric Keypad Operating Position App-41

Lesson C-17: Numeric Keypad 7, 8, 9 App-43
Lesson C-18: Numeric Keypad 1, 2, 3 App-44
Lesson C-19: Subtraction and Multiplication App-45
Lesson C-20: Division App-46

Glossary

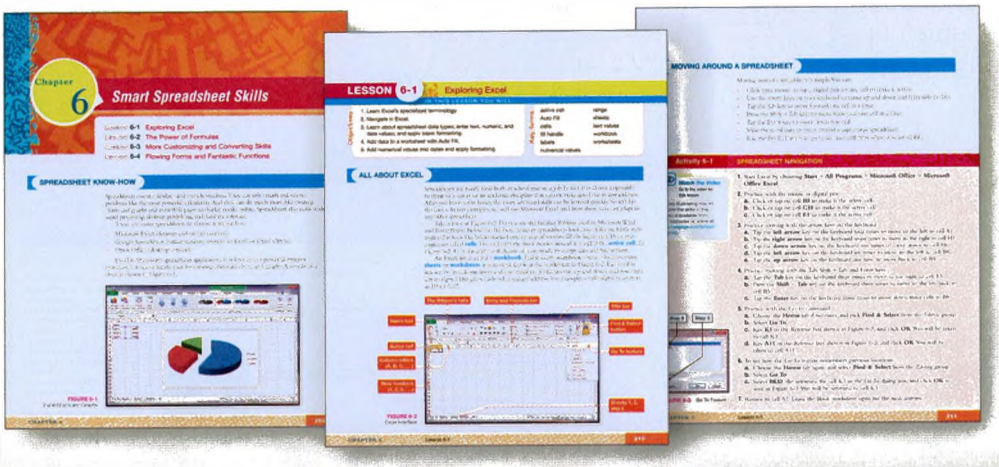
Index

Live Digital!

For Life, Career, and Academic Success

No other book better prepares students for the innovations in Microsoft® Office (2010 and 2007) than the third edition of *DIGITOOLS*! *DIGITOOLS* teaches the proper way to key and format documents using proven instructional methods, while emphasizing computer applications, such as word processing, presentations, spreadsheets, and databases. But that's not all. Students learn to effectively use the Internet to share and collaborate online with Google Docs, Sites, and Microsoft Live. And input technologies are as strong as ever, including instruction for the keyboard, speech recognition, touch screen, and handwriting recognition tools.

New to this Edition



Lessons within chapters provide shorter and more effective learning chunks and contain several activities for daily classroom efficiency.

Compatible with both Microsoft Office 2010 and 2007 for Windows 7 and XP.



NEW! Watch the Video feature provides visual cues for learning how to perform basic Microsoft Office skills; these step-by-step videos are found on both the IRCD and the website.

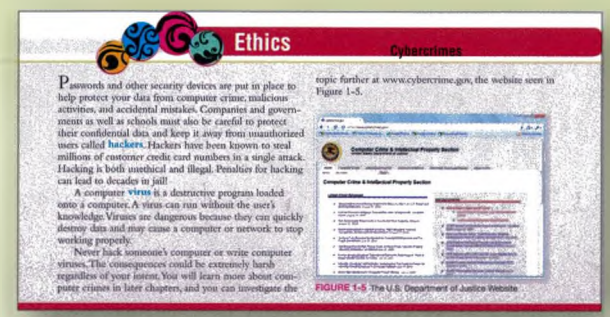
NEW! New topics include **cloud computing, social networking, team sharing online,** improved coverage **of video and graphics,** and a stronger emphasis on word processing.

NEW! Into the Cloud is an end-of-chapter feature that discusses online applications and issues that pertain to each chapter's topic. Critical thinking questions for discussion and collaboration provide opportunities for expanded learning.

NEW! Google Doc applications are also applied to show alternative applications.



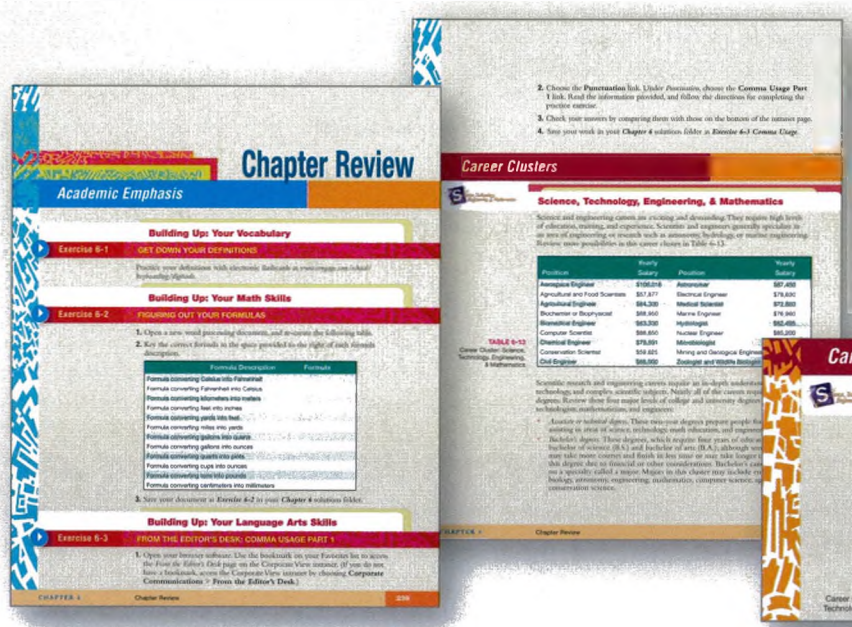
All You Need for Digital Tools Instruction!



NEW! Ethics features introduce various challenging topics and generate discussion of each issue.

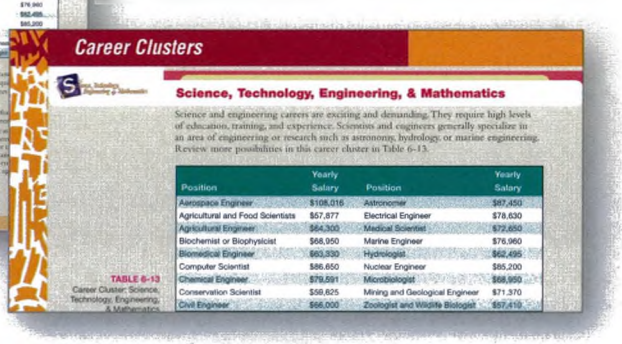


NEW! The **Corporate View** website simulation that supplies many projects for this text has also been updated to support new technologies and trends. **Corporate View** activities provide ample opportunities for students to use Internet research, critical thinking, and decision making skills applied in a simulated realistic business setting.

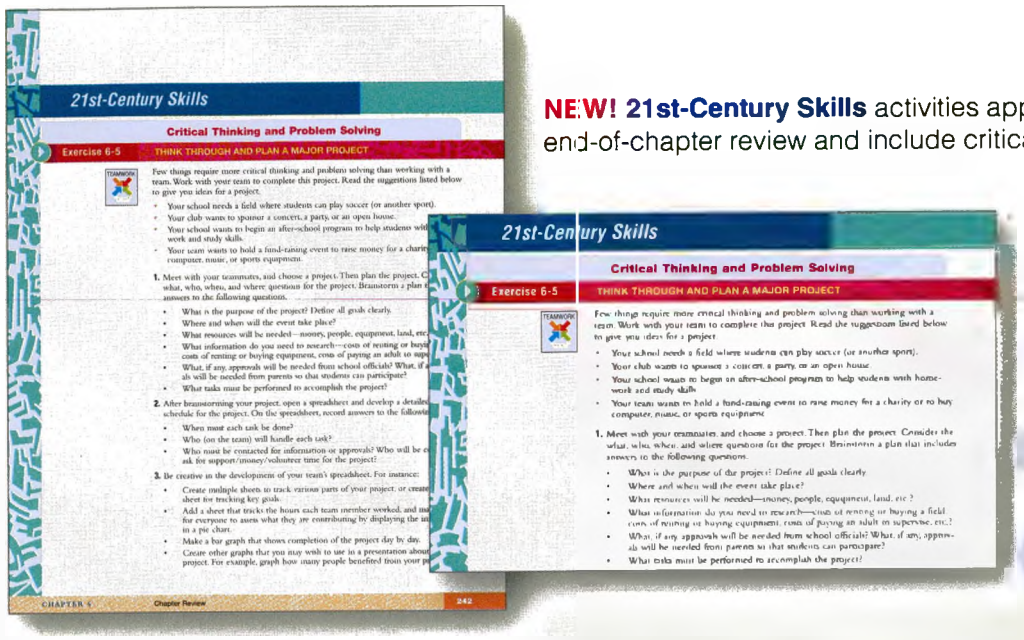


NEW! End-of-chapter activities provide more reinforcement for academic connections with **math and communications/language arts.**

NEW! Career Clusters activities provide portfolio-building materials for life beyond high school.



Prepare for the Future with 21st-Century Skills

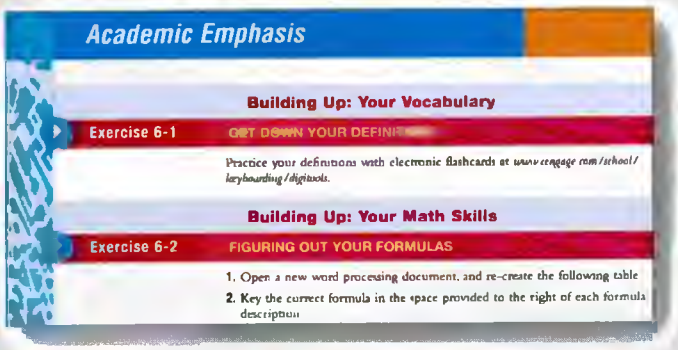


NEW! 21st-Century Skills activities apply business topics to end-of-chapter review and include critical thinking and collaboration.

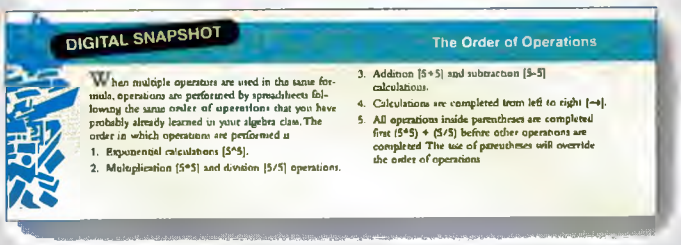
Instructional Features You Rely On

DIGITOOLS provides complete coverage of computer applications and input technology topics for a full year of instruction.

Applications covered include: operating systems, the Internet, managing digital information, keyboarding, word processing, presentations, spreadsheets, databases, digital imaging, desktop publishing, website creation, drawing, online skills, personal finance, career and job search skills, resume building, speech recognition, and handwriting recognition.



In addition to hands-on computer skills, emphasis is placed on **mastering vocabulary terms** to give you the academic advantage.



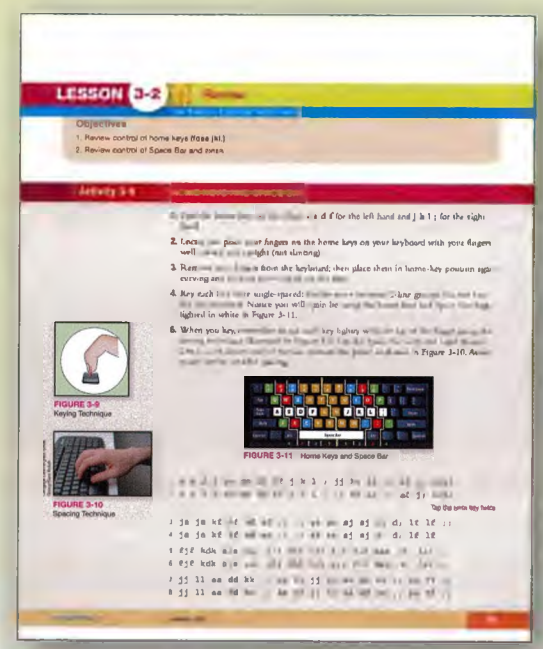
Digital Snapshots provide more detailed information on related topics within a chapter.

Chapters on **desktop publishing** provide additional focus on advanced word processing skills.



MicroType™ 5 Keyboarding

A full chapter on **beginning keyboarding** instruction follows South-Western's time-tested, proven pedagogy, with references to ***MicroType™ 5***



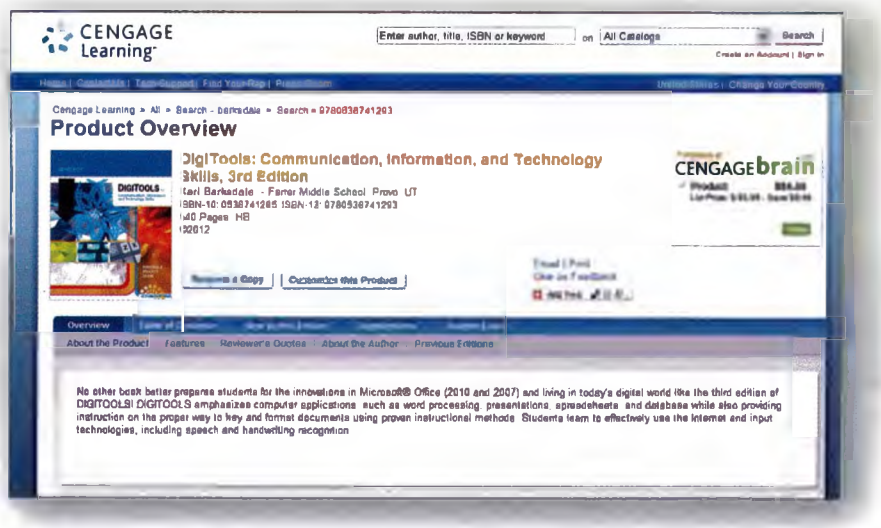
Emphasis on keyboarding and skill building activities provides the practice that students need.



The DigiTools Product Website Has Many Resources!

www.cengage.com/school/digitools

The site provides instructor resources, PowerPoint® presentations, lesson plans, solutions, and information about related products. Student resources include data files, supplemental activities, and links to related sites.



DIGITOOLS 3e

Communication, Information, and Technology Skills

Live Digital!

For Life, Career, and Academic Success

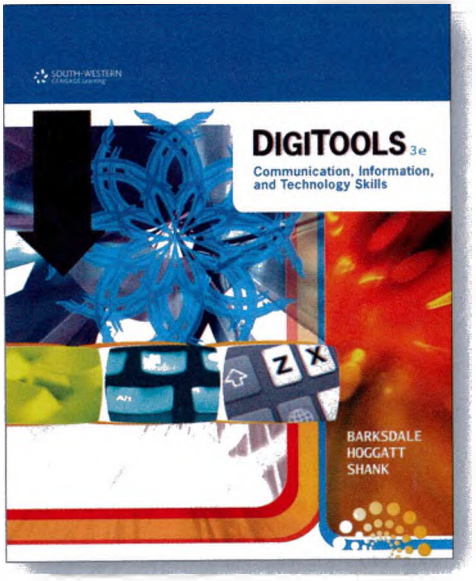
DigiTools: Communication, Information, and Technology Skills, 3e

978-0-538-74129-3

This book teaches the proper way to key and format documents using proven instructional methods, while also emphasizing computer applications, such as word processing, presentations, spreadsheets, and databases. Also available:

Instructor Manual: 978-0-538-73162-1
Instructor Resource CD (IRCD): 978-0-538-73160-7
ExamView CD: 978-0-538-73163-8
eBook CD: 978-1-111-42762-7
eBook online (IAC): 978-1-111-46792-0
eBook online (PAC): 978-1-111-66707-8

Product Website: www.cengage.com/school/digitools



MicroType™ 5

Network Site License, 978-0-538-44977-9
Individual/Student Version, 978-0-538-44980-9

This is instructional software for alphabetic and numeric keyboarding, skill-building, and the numeric keypad with motivating graphics, games, and a word processor with a built-in timer. This program teaches correct finger placement and builds basic keyboarding skills, then helps students build speed and accuracy. Instructor utilities include class and student preferences, detailed lesson, summary, and timed-writing reports, and an enhanced gradebook.

Product Website: www.cengage.com/school



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Karl Barksdale combines classroom practice and pedagogy with real-world business knowledge and experience. Karl was the External Training Manager for Google Incorporated, a Development Manager for the Training and Certification team at WordPerfect Corporation, and a Marketing Manager in the Consumer Products division of WordPerfect. He also co-founded Speaking Solutions to promote alternative input technologies in the schools. Prior to his stint in industry, he obtained a master's degree in curriculum from the University of Utah and applied his degree as the Secondary Curriculum Coordinator for Provo School District. After the demise of WordPerfect, Karl returned to education as a Business Education instructor. He has spent 30 years teaching at the middle school, high school, and college levels. He has authored more than 64 business and computer education textbooks for South-Western Educational Publishing, Course Technology, Wiley, and other publishers. Karl currently teaches at the Utah County Academy of Sciences – which is the early college high school at Utah Valley University in Orem, Utah. He still makes time to stay fit, recently participating in USA Triathlon's Age Group National Championship in Olympic distance triathlon.

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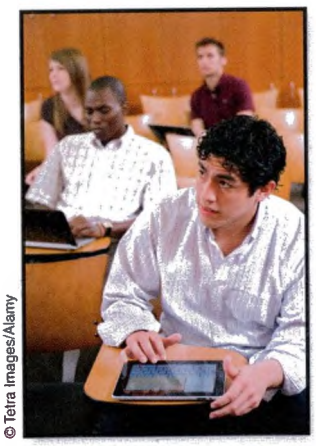
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Chapter 1

Technology Skills for Life, Career, and Academic Success

Lesson 1-1 Micro-Intelligence
Lesson 1-2 Operating System Know-How (for XP, Vista, and Windows 7 Users)
Lesson 1-3 Application Know-How (for XP, Vista, or Windows 7 Users)
Lesson 1-4 Windows 7 Extra Know-How
Lesson 1-5 Library, Folder, and File Management Know-How

DIGITAL LIFE IN THE 21ST CENTURY



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FIGURE 1-1
The iPad, debuted in 2010, is changing the way people use computers.

There is no getting around it; we live in a world surrounded by digital communication tools—DigiTools for short. Modern society cannot function without them, and neither can you. We have come to depend on computers of all shapes and sizes. (See Figure 1-1.)

Why learn to use today's DigiTools? First of all, they are fun! Everybody likes updating their Facebook page, surfing the Web, text messaging, joining a multiuser game, snapping a picture with a smart phone, playing a game on an iPad, or downloading music or a movie. These are all examples of communicating digitally just for the fun of it.

Beyond having fun, however, digital communication skills are essential for career and academic success. It is hard to get along in school, on the job, or in modern life without knowing how to use digital devices expertly. This is why DigiTools is not a traditional computer class. DigiTools will give you the digital skills you need to prepare for college and to build your career.

LESSON 1-1 Micro-Intelligence

IN THIS LESSON YOU WILL:

Objectives

1. Locate your computer's brains, and learn to identify types of computers.
2. Explore the digital communications model.
3. Explore ways to keep your information secure.
4. Learn about acceptable use policies.

Key Terms

acceptable use policies (AUPs)
hackers
hardware
Information Technology (IT)
iPad
microprocessor
Net PC
personal computer (PC)
processing
spam
tablet PC
virus

DIGITAL BRAINS

INSTANT MESSAGE

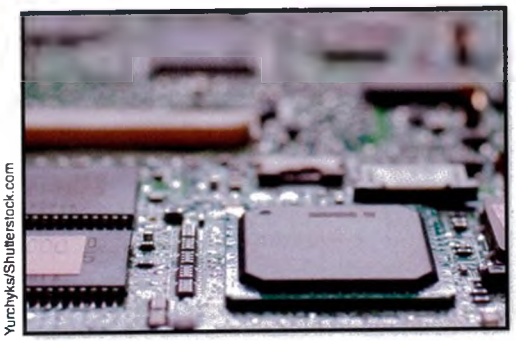
A tablet PC lets handwritten notes be scribed on the surface of the screen with a digital pen. A Net PC is a light computer designed to work in the Internet cloud. An iPad is Apple Computer's tablet/Net PC hybrid that uses mulititouch fingertip control of the interface.

The physical parts of any digital device—the elements you can see with your eyes and touch with your hands— are called **hardware**. The "brain" inside every DigiTool is a piece of hardware called a **microprocessor** or microchip. A microprocessor is a small circuit board that controls all the **processing** or "thinking" inside a computer or, for that matter, any type of digital device. Microchips make digital communication possible.

Almost anything big enough to hold a microprocessor can become a digital communications tool. A computer can take many forms: the latest high-speed multimedia desktop **PC** (or **personal computer**); a sleek iPad, Net, or tablet PC; or a handheld smart phone like the iPod Touch or Droid.

Some DigiTools are designed for entertainment; others are built for work-related tasks; some address both purposes. As Figure 1-3 suggests, you may find yourself working with at least four (or more) categories of computers:

1. *Multimedia* or desktop PCs
2. *Portable* laptop, Net, tablet PC, or iPad computers
3. *Handheld* computers like updated cell phones; and smart phones like the Apple iPhone, RIM Blackberry, or a Google Android device
4. *Specialized* DigiTools like iPods and MP3 players, digital video recorders (DVR), global positioning system (GPS) tools, or game consoles



Yurchyks/Shutterstock.com

FIGURE 1-2
A microprocessor controls all the processing in a digital device.



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FIGURE 1-3
Four Categories of DigiTools

Microchips are found in new and unexpected places like the instrument panels of cars, in onboard global positioning systems (GPS), and in digital cameras. They can even be found in toys and car keys. There is no end to the use of miniature microprocessors in the future. In years past, people could not have imagined the tools we take for granted today. It was the stuff of cartoons and science fiction shows like *Dick Tracy*, *The Jetsons*, *Stargate*, *Star Trek*, or *Star Wars*. Today, such seemingly fantastic DigiTools are all around us.

DIGITAL COMMUNICATIONS MODEL

Digital communication involves a message. A message is what you want to share. In fact, it is the most important part of any digital communication. (See Figure 1-4.) It can consist of any information, ideas, or thoughts you want to let someone know about.

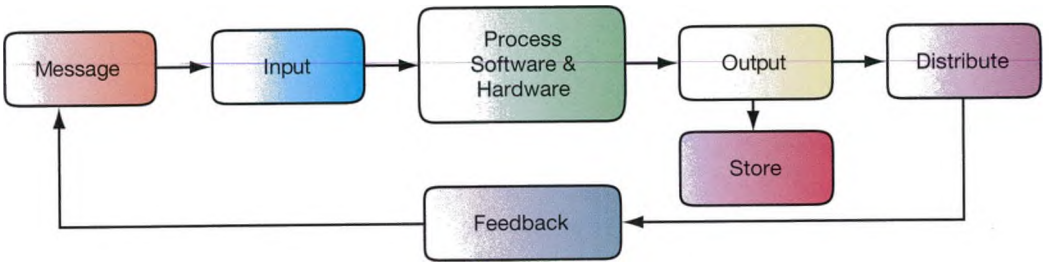


FIGURE 1-4
The Digital Communications Model

The message must first find its way into a computer through some kind of input method. The typical input methods are:

- Fingertips on touch screens and for texting
- Keyboards for typing or "keying"
- Headsets for speech recognition
- Digital pens for art and handwriting recognition
- Digital cameras for images and video
- Scanners for images and text
- Digital downloads

Computers process the message with hardware and software. After processing, the message is shared as output. Output can be anything someone hears, sees, reads, or experiences—including such things as a Facebook page, a text message, phone conversation, printed report, digital photo, or even a movie.

You can store important outputs for safekeeping, and they can be distributed in a variety of ways. For example, the message you input can be processed into a Web page and shared as an output online, like on a Facebook or Google Sites page.

But as Figure 1-4 illustrates, the process is not complete until others have responded to your message and given you feedback on what they are thinking. The feedback loop is a constructive conversation that can show you ways to improve how you communicate your ideas.

PASSWORDS FOR YOUR PROTECTION

With millions of people using networks every second of every day, there is an ever-growing chance that someone will—accidentally or on purpose—access or destroy the data files of others. Criminals also seek to gain access to information for illegal purposes. All of this activity makes **Information Technology (IT)** specialists, also called Network Administrators, very nervous.

IT professionals manage and protect network accounts from both accidental mistakes and deliberate abuse. A network account can be compared to a bank account and should be just as secure. *Only* the account owner may access his or her account legally. To protect these accounts, passwords are created.

A password is a series of letters, numbers, and/or symbols that you will enter to gain access to a network account. Sometimes, passwords are assigned by network administrators. However, more often than not, you will be able to choose a password of your own within specific guidelines. You will learn a few helpful rules about password creation in Activity 1-1. Your password is your primary security device. Choose it carefully.

Ethics

Cybercrimes

Passwords and other security devices are put in place to help protect your data from computer crime, malicious activities, and accidental mistakes. Companies and governments as well as schools must also be careful to protect their confidential data and keep it away from unauthorized users called **hackers**. Hackers have been known to steal millions of customer credit card numbers in a single attack. Hacking is both unethical and illegal. Penalties for hacking can lead to decades in jail!

A computer **virus** is a destructive program loaded onto a computer. A virus can run without the user's knowledge. Viruses are dangerous because they can quickly destroy data and may cause a computer or network to stop working properly.

Never hack someone's computer or write computer viruses. The consequences could be extremely harsh regardless of your intent. You will learn more about computer crimes in later chapters, and you can investigate the topic further at www.cybercrime.gov, the website seen in Figure 1-5.

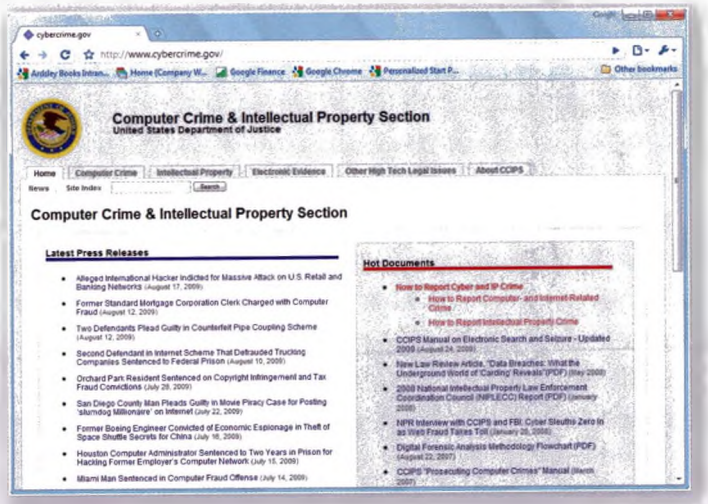


FIGURE 1-5 The U.S. Department of Justice Website

Activity 1-1 PERFECTLY PROPER PASSWORDS

Watch the Video
Go to the video for this lesson.

A video illustrating how to perform the skills in this lesson is available from your instructor or online at: www.cengage.com/school/keyboarding/digitools.

1. Read these five rules about creating effective and powerful passwords.

Rule 1 Do not create an obvious password that nearly anyone who knows you can easily guess, such as a boyfriend's or girlfriend's name, your birth date, or a pet's name.

Rule 2 Make your password at least eight characters or longer. Do not, however, create an unnecessarily long password. A well-chosen shorter password can be just as secure as a longer choice.

Rule 3 Your password will be more secure if you use a combination of letters and numbers. For example, "123triathlon" is stronger than "triathlon."

Rule 4 Do not forget your password! Think of a mnemonic device or a word association to help you remember it. For example, if your password is "123triathlon," think of the three sports in triathlon "1 run, 2 bike, 3 swim=triathlon!"
Rule 5 Do not share your password with anyone.

2. Before proceeding to Activity 1-2, take a few minutes and think of three possible secure passwords that you can use.

ACCEPTABLE USE POLICIES

To meet the security and legal demands of employees, students, and customers, organizations must create rules to guide users. These rules are called **acceptable use policies (AUPs)**. They are not usually open for debate. If you want to use a network, you must obey its rules as explained in the company's AUP. To learn more, complete the discussion in Activity 1-2.

Activity 1-2 DISCUSSION: ACCEPTABLE USE AND COMPUTER DANGERS

1. Read the list of network rules shown in Figure 1-6. This sample AUP was created by synthesizing several corporate AUPs. Use the information to answer the questions in step 2.

Corporate Acceptable Use Policy

A. Your username and network account are for your professional use only. They are not transferable to others. You may not allow others to use your account.
B. Access to this network is for official purposes only. You are specifically prohibited from using your access to this network for personal, non-official use.
C. Only lawful activities are allowed on the network.
D. Employees are prohibited from using the network to publish or distribute libelous, slanderous, obscene, or inappropriate literature, graphics, or other offensive materials.
E. When using e-mail or other Internet software, do not create mass mailings or spam. Do not create any message with instructions to forward the message to multiple addresses. Do not create harassing messages. Comply with any request to stop sending unwanted messages.
F. Graphics, applications, databases, audio files, video files, and other works that are protected by copyright should not be acquired or distributed over this network without complying with the owner's licensing terms.
G. Your password is the primary way to protect your work, files, folders, and personal information. Never share your password with others.

FIGURE 1-6
Typical Corporate AUP

2. Discuss the following questions relating to AUPs:
   a. What experiences have you had with spam?
   b. Have you or anyone you know of had difficulties with viruses, hackers, or other computer-related crimes?
   c. Have you encountered a computer virus at home, school, or work? What damage did the virus cause?

INSTANT MESSAGE

Spam is unwanted e-mail, advertising, pop-up ads, or pages that appear on your computer without requesting them

d. Is hacking wrong, even if the hacker is just "playing" and does not intend to steal or misuse information?
e. What are some of the downsides of letting friends or acquaintances know your password or use your network account? What potential problems could arise?
f. What are some of the possible prohibited activities on a network? Discuss three examples that you believe may be considered non-official use.
g. What do the words *libel, slander, harass,* and *obscene* mean? (Use an online dictionary like Wikipedia, or visit www.Google.com or www.Bing.com, to look up the words if necessary.)
h. Are there any other specific rules and restrictions on your network that were not listed in the sample corporate AUP found in step 1?
i. Why is it important to log out of the network when you are finished using it?

Activity 1-3 LOGGING INTO YOUR COMPUTER

1. Most computer networks, and even many home personal computers, require users to log in with their name and password.
   a. What are the login procedures for your computer system?
   b. What steps must you follow to access your network correctly?
   c. What are the steps your network administrator/instructor has given regarding passwords and logging in and out of your local network?

2. Follow the instructions you have been given and log into your computer.

3. Log out of your network and computer system according to your local network's procedures.

LESSON 1-2 Operating System Know-How (for XP, Vista, and Windows 7 Users)

IN THIS LESSON YOU WILL:

Objectives

1. Explore your computer inside and out.
2. Use your operating system to control your computer.
3. Explore the power of Control Panels.
4. Find your peripheral devices.

Key Terms

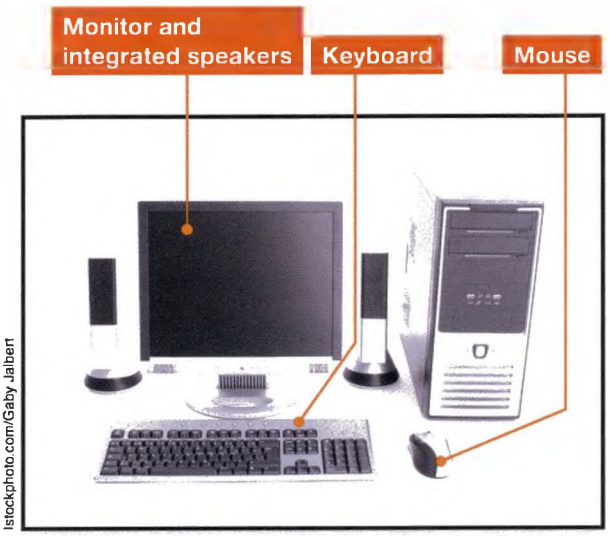
apps
central processing unit (CPU)
component
Control Panel
dialog box
gadget
graphical user interface (GUI)
icon
interface
motherboard
open source
operating system (OS)
peripherals
proprietary
user interface (UI)

YOUR COMPUTER, INSIDE AND OUT

The external parts of a personal computer (PC) probably look very familiar. The most common parts of a multimedia desktop PC are illustrated in Figure 1-7.

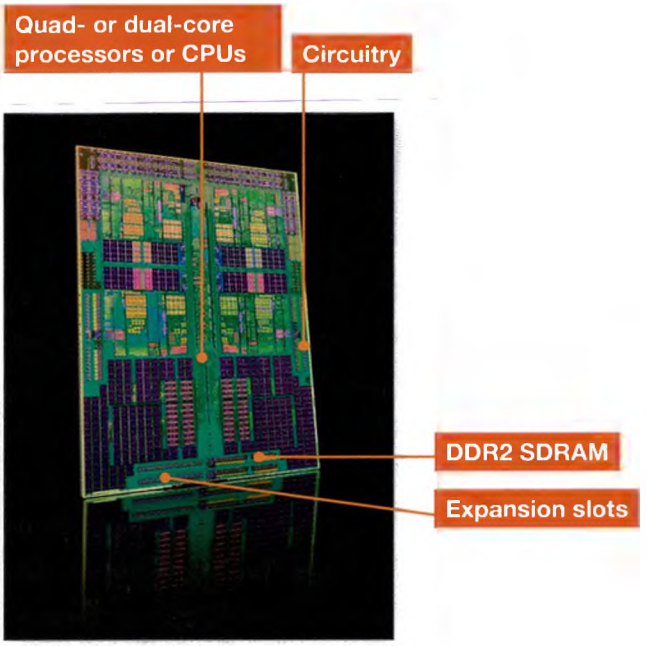
Inside, whether large or small, all computers share something in common; each has a **central processing unit (CPU)** that contains its microprocessor.

Often called the "brains of a computer," CPUs can be found on special circuit boards called **motherboards**. Motherboards connect CPUs—such as the dual-core microprocessors seen in Figure 1-8—to other important components inside the computer, such as memory, integrated circuitry, and connections to other tools like printers, scanners, digital cameras, Wacom boards, or headsets.



Istockphoto.com/Gaby Jalbert

FIGURE 1-7 External Parts of a Multimedia Desktop PC



AP Photo/Advanced Micro Devices, Inc.

FIGURE 1-8 A Motherboard and its Internal Components

TAKE CONTROL WITH YOUR OPERATING SYSTEM

INSTANT MESSAGE

Gadgets and apps are mini-applications or programs that can be placed on your desktop.

Anything with a microchip needs an **operating system (OS)**. An OS is the essential software link between you and your computer's hardware. The OS gives you a starting point, a way to communicate with your digital tool. Without an OS, nothing happens. An OS gives instructions to the internal and external parts of your PC, smart phone, iPad, or iPod. These bits of hardware are often called **components**.

The parts of the OS you see on your screen and interact with are known as the **interface** or **user interface (UI)**. Some operating systems, such as Windows, Linux, or Macintosh OS, have become household names. In Figure 1-9 you can see a sample of the Windows interface. Your Windows UI may look very different depending on the choices you make as you customize your computer.

Other operating systems are less well known but just as important. In fact, every cell phone, digital video recorder, MP3 player, iPod, or digital wristwatch has an OS interface. For that matter, even your microwave has a simple OS of its own!

There are two types of OS systems: **proprietary** and **open source**. Proprietary OS software is owned by a company that controls and profits by selling licenses, or permissions to use the OS. Microsoft Windows and Apple OS are proprietary systems.



FIGURE 1-9 Windows 7 User Interface

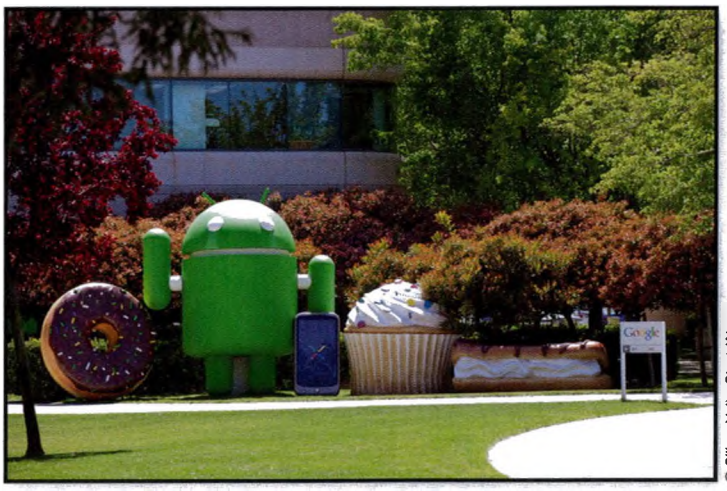
Open-source applications are shared by developers all over the world. For example, Android, funded by Google, is an OS for smart phones that any software developer can use to create new solutions for cell phone users. In Figure 1-10 you can see a sample phone using Android, as well as the Android logo outside the Google headquarters.

An effective OS must be user-friendly, which means it is easy to access even by novices. Most operating systems have **GUIs** or **graphical user interfaces**. GUIs use pictures, called **icons**, to represent commands. With a GUI, users can manipulate the OS in at least four ways:

- Click an icon with a mouse.
- Tap icons on a track pad or with a digital pen.
- Speak commands by saying the names of the icons.
- Touch, tap, and flip icons on the screen or your digital device.



Jin Lee/Bloomberg via Getty Images



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FIGURE 1-10
Android is an open-source OS system for cell phones.

DO NOT DEFAULT TO THE ORDINARY

Operating systems give you many ways to get things done. To help new users, Microsoft provides default settings for its Windows interface. These settings are Microsoft's best guess as to what the average computer user will like to see and do. But you are not average at all. Do not default to the ordinary! Change your OS settings to fit your needs and your personality.

Changes to the Windows OS are made in **Control Panels**. Control Panels are powerful apps, or mini-applications, that can change the way your computer works, looks, and responds to your commands. You can make changes just for fun or to increase your efficiency and the ease with which you use your computer.

Activity 1-4 FINDING AND USING A CONTROL PANEL

Throughout this lesson you will see instructions for Windows 7 (released in 2009), Windows Vista (released in 2007) as well as the much older Windows XP (released in 2002). Follow the instructions that best match your Windows OS.

1. Turn on your computer and log into your system. After your PC starts up, choose:
   Windows 7: **Start** > **Control Panel**, as seen in Figure 1-11.
   Windows Vista: **Start** > **Control Panel**.
   Windows XP: **Start** > **Control Panel**.



FIGURE 1-11
The Control Panel Button on the Start Menu

2. From the Control Panel dialog box that appears, select:
   Windows 7: **Appearance and Personalization**. Under that option choose **Change desktop background** as marked in Figure 1-12.
   Windows Vista: **Appearance and Personalization**. Under that option choose **Change desktop background**.

INSTANT MESSAGE

When you open a Control Panel, you will see a **dialog box** like the one shown in Figure 1-13. A dialog box presents choices you can make. If you do not want to make a change, choose **Cancel**.

Windows XP: **Appearance and Themes**. Under that option choose **Change the desktop background**.

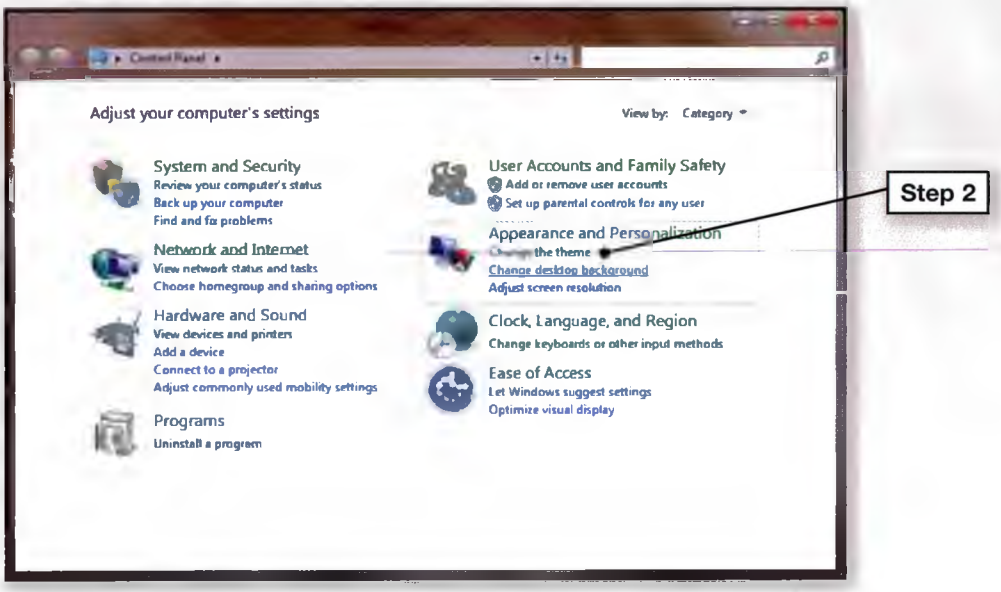


FIGURE 1-12
Control Panel Selection Window

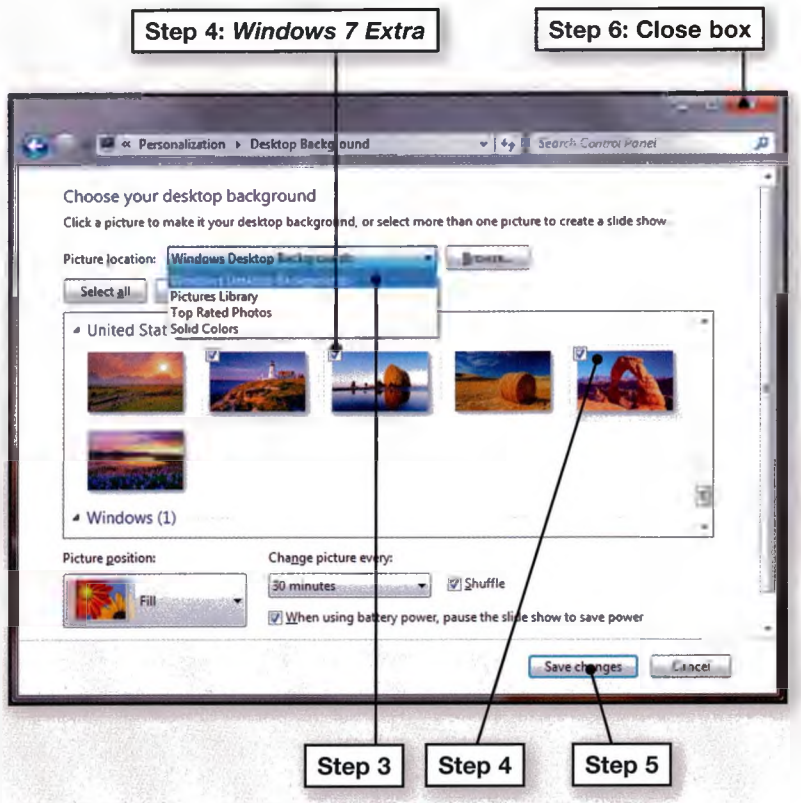


FIGURE 1-13 Desktop Background Selection Dialog Box

3. Scroll through the various background options until you find an image that interests you.
   Windows 7 Extra: Click the **Picture location** down arrow to choose different images from either your Windows Desktop Backgrounds, Pictures Library, Top Rated Photos, or Solid Colors. For this activity, we recommend the Windows Desktop Backgrounds as marked in Figure 1-13.
4. Select a background image you like by clicking or tapping on it.
   Windows 7 Extra: In Windows 7 you can click multiple pictures by clicking a check mark in the top-left corner of each picture. Have your choices rotate on the background by clicking **Shuffle** and setting a time limit for each background image as seen in Figure 1-13.
5. To transfer the image to your desktop. Choose:
   Windows 7: **Save changes** as seen in Figure 1-13.
   Windows Vista: **OK**.
   Windows XP: **Apply** > **OK**.
6. Close any open windows (by clicking the **Close** button) and return to the desktop.

Activity 1-5 RUN A SOUND CHECK

DID YOU KNOW

Control Panels let you adjust the volume of your speakers and microphone.

1. Choose:

Windows 7: **Start** > **Control Panel** > **Hardware and Sound**. Look for the *Sound* section and choose **Adjust system volume**.

Windows Vista: **Start** > **Control Panel** > **Hardware and Sound**. Look for the *Sound* section and choose **Adjust system volume**.

Windows XP: **Start** > **Control Panel** > **Sounds, Speech, and Audio Devices**. Choose **Adjust the system volume**, and then choose the **Volume** tab if necessary.

INSTANT MESSAGE

If you want to turn off sound completely, you can click the Mute button under the volume control as marked in Figure 1-14.

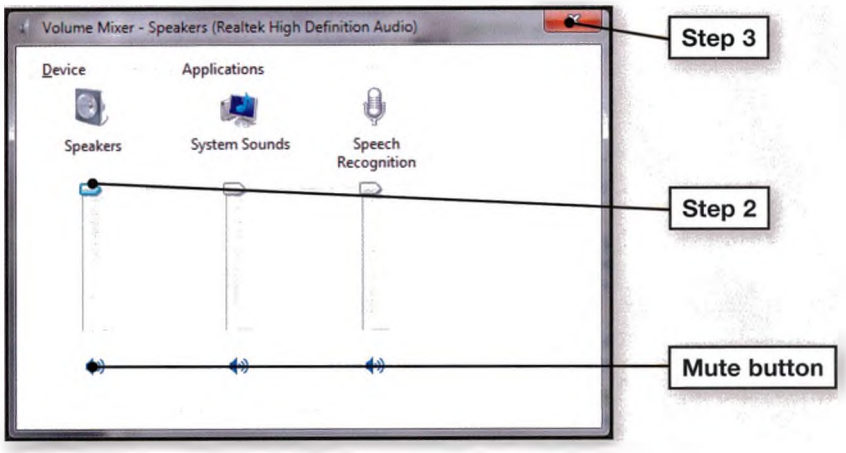


FIGURE 1-14
System Volume Controls

2. Move the slider to an appropriate volume.

3. Close any open Control Panels by clicking or tapping the **Close** buttons.

POWERFUL PERIPHERALS

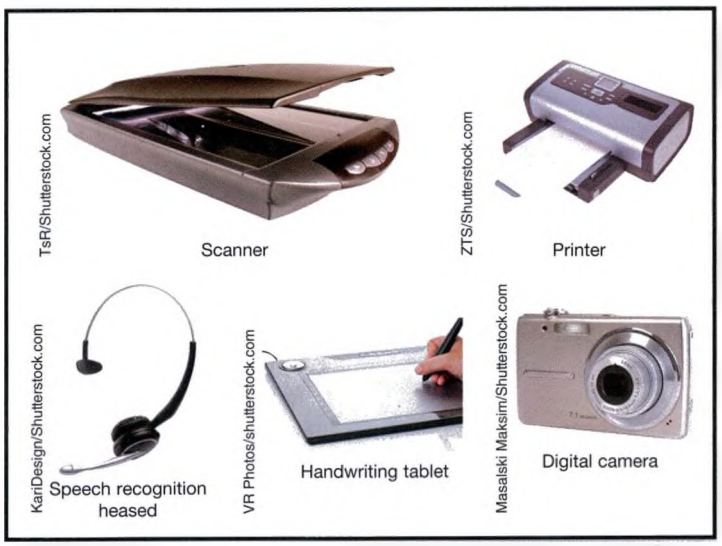


FIGURE 1-15 Peripheral hardware is managed by the OS.

A computer cannot do everything by itself! It needs the help of other components that connect to a PC. These devices are often called **peripherals**. Printers, Wacom handwriting tablets, speech recognition headsets, projectors, and scanners are examples of these types of hardware devices. The operating system coordinates actions between these devices and your PC.

The most common peripheral is the printer. On a network, printers are usually set up in advance by a system administrator. However, at home you may need to connect your printer using the Printers Control Panel. View the available printers in this next, quick activity.

1. Choose:
   Windows 7: **Start > Control Panel > View Devices and Printers** (found in the *Hardware and Sound* section).
   Windows Vista: **Start > Control Panel > Printers** (found in the *Hardware and Sound* section).
   Windows XP: **Start > Control Panel > Printers and Other Hardware > Printers and Faxes**.

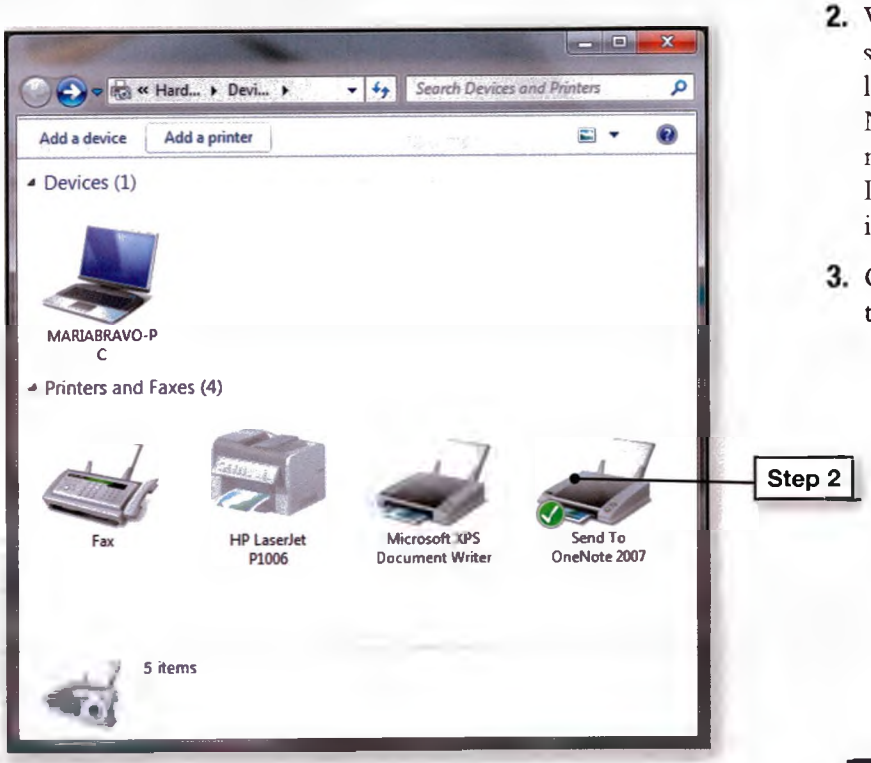


FIGURE 1-16 Available Printers

2. View the available printers. Your list will look similar to that shown in Figure 1-16, but will likely have different peripherals listed. (*Note:* Notice that one of the print options has been marked with a check mark as the default printer. Do not change your default printer settings unless instructed to do so.)
3. Close the Printers Control Panel by clicking or tapping the **Close** button.

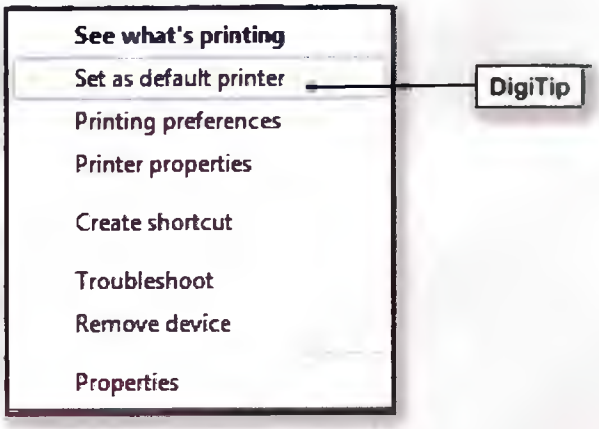


FIGURE 1-17 Printer Default Selection

DigiTip

You can add additional printers from the Printers Control Panel. You can also change the default printer settings. The default printer is the one you will normally use—in other words, your first choice. To change your default printer, right-click on your printer's icon and choose **Set as default printer** from the pop-up list (see Figure 1-17).

LESSON 1-3 Application Know-How (for XP, Vista, or Windows 7 Users)

IN THIS LESSON YOU WILL:

Objectives

1. Start and close valuable, free applications that come with your Windows software.
2. Open applications in Windows.
3. Minimize, maximize, restore down and resize application windows.
4. Use Tab and Alt + Tab and scroll through multiple open windows.
5. Use the Windows search tool to find and open applications in windows.

Key Terms

active application
application
window

EXTRAORDINARY (AND FREE) WINDOWS APPLICATIONS

INSTANT MESSAGE

Learn how to use the speech recognition application and handwriting recognition Input Panel in Appendices A and B.

An operating system has another important function. The OS makes it possible to open and use PC **applications**. Applications are powerful software programs, each with a specific purpose. They let you be creative, solve problems, and get things done. Luckily, many great applications come free with your Windows OS. Figure 1-18 shows a free word processing application called WordPad, a free handwriting tool called the Input Panel, and a free speech recognition program that lets you enter text by talking. (See Appendices A and B for more information on using handwriting and speech recognition.)

Applications open up in little rectangles called **windows** (hence the name, *Windows Operating System*). A typical application window can be seen in Figure 1-18.

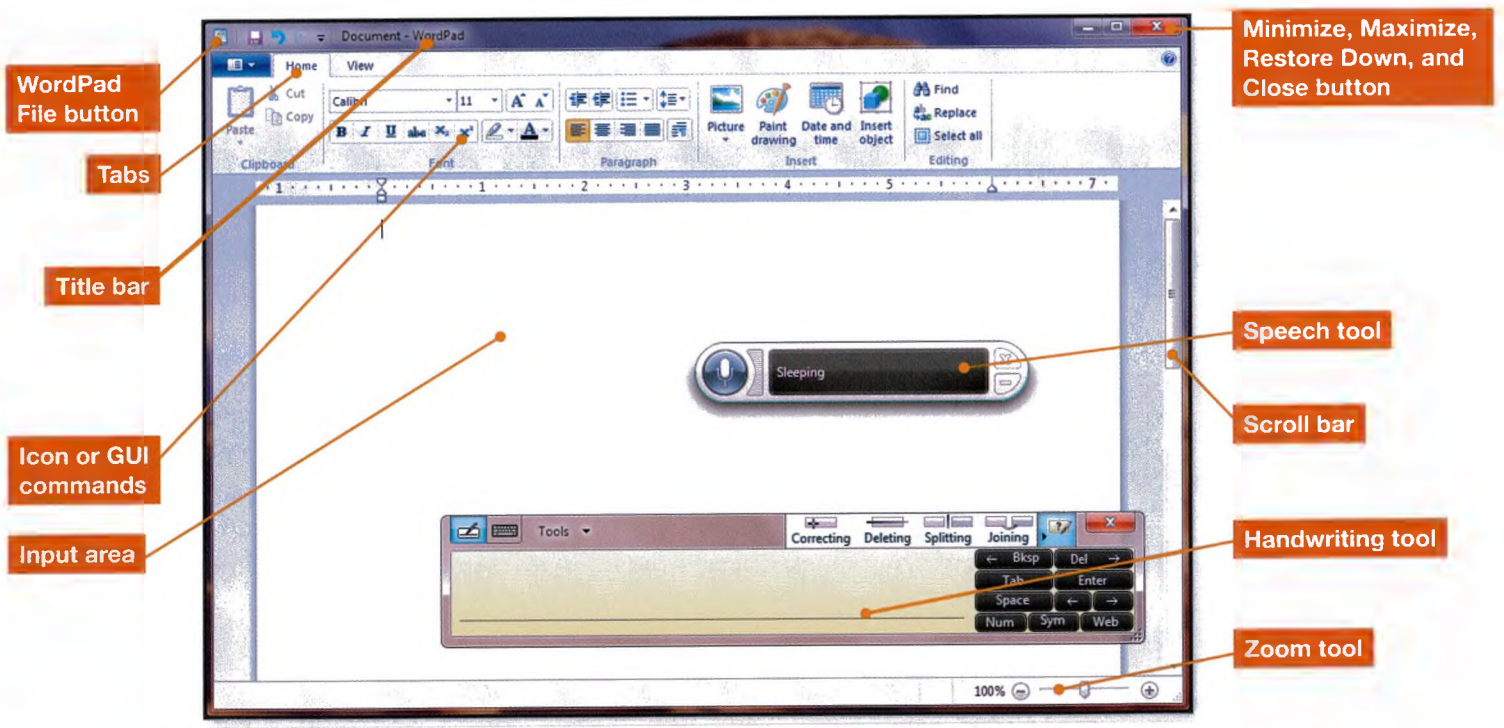


FIGURE 1-18 Typical Application Window

Applications open in windows. These windows are boxes that appear on the desktop. The application you are currently using is called the **active application**. Switching to another application will make it *active*. You can switch between open applications by:

- Clicking, tapping, or touching the application window.
- Clicking, tapping, or touching the application's icon from the taskbar.
- Pressing the **Alt** key followed by the **Tab** key (**Alt + Tab**).
- Accessing the rolling index view by pressing the **Windows** button followed by the **Tab** key (**Windows + Tab**).

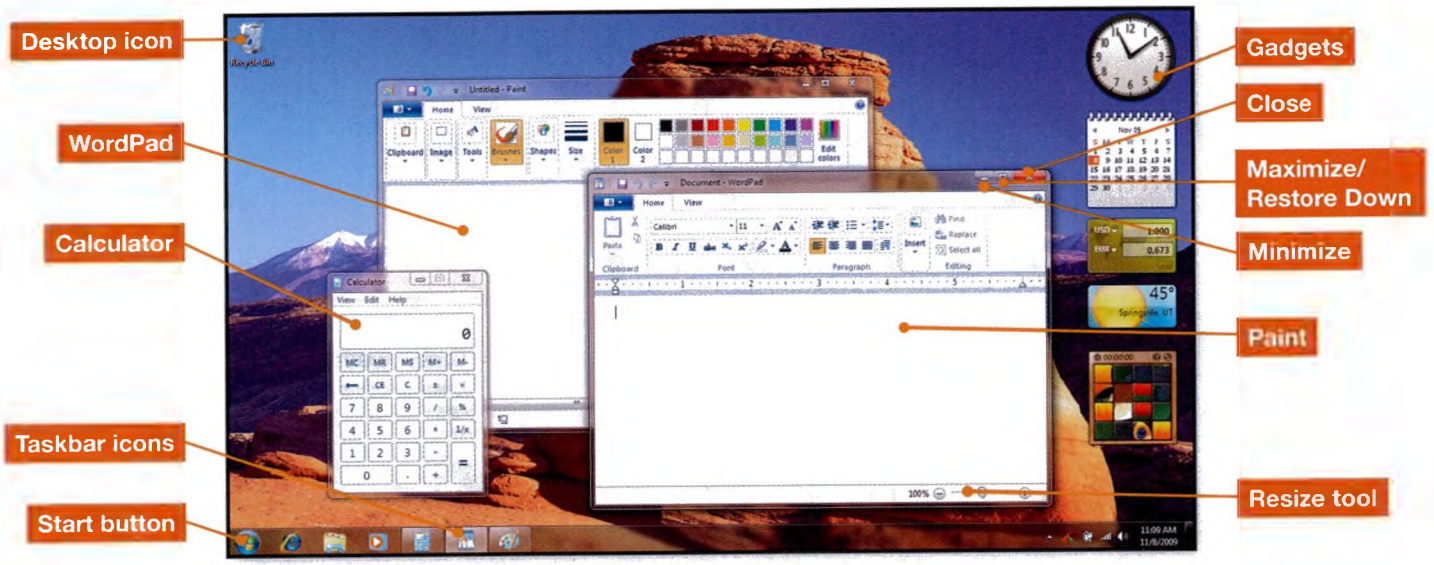


FIGURE 1-19 Several Open Applications

INSTANT MESSAGE

Think of WordPad as a mini-version of Microsoft Word. It's fine for small projects and luckily, it's free!

All open applications have a title bar where information about them is displayed. An application can be moved by selecting its title bar and dragging it into position. The OS also allows you to control the size of an open application window with the Minimize, Maximize, and Restore Down options. Since the OS creates these controls, they look similar from one application to another. You will learn how they work in the next activity.

There are many ways to find an application on your Windows PC, including by clicking:

- An icon from the Start menu list
- An icon on the taskbar
- A desktop shortcut icon
- Start, All Programs and locating and clicking the application you need. (We will start with this one.)

Activity 1-7 CLICK AND TAP ABOUT

1. Move your mouse (or digital pen) down to your **Start** button as illustrated in Figure 1-20.
2. Choose **All Programs**. (See Figure 1-20.)

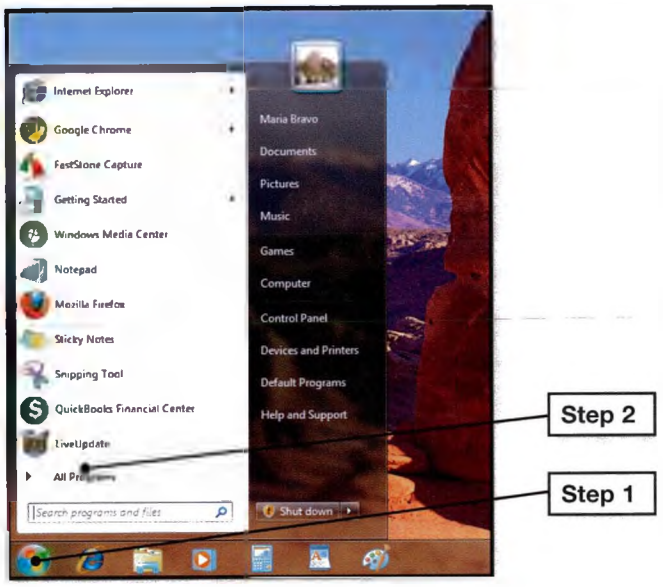


FIGURE 1-20
Start Menu

3. Choose the **Accessories** folder and open it.
4. Choose **WordPad** and open it with a click or a tap.
5. To expand the WordPad window to its maximum size, pick the **Maximize** button seen in Figure 1-21. (The Maximize button is only available when a window is not full-screen size.)
6. To restore WordPad to a smaller window, choose the **Restore Down** button seen in Figure 1-22. (The Restore Down button is only available when the window is full-screen size.)
7. Resize your WordPad window to about one-third the size of the screen by touching and dragging the resize handle either inward or outward. The resize handle appears as your cursor moves over an edge of a window. (See Figure 1-23.)



FIGURE 1-21
The Maximize Button



FIGURE 1-22
The Restore Down Button



Most windows can be resized by moving the pointer to one of the edges of a document. When the pointer changes to a two-headed arrow (the resize handle), click and drag in or out to resize the window. If you click on a corner, the window will be resized proportionately in width and height. If you drag a side or the top or bottom, you will only resize the window in one direction.

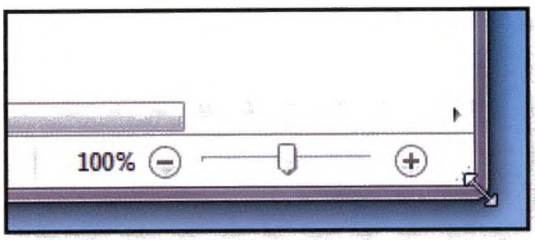


FIGURE 1-23 The Resize Handle

8. Now that you have created a smaller WordPad window, touch and drag the window by its title bar. Move the entire WordPad window up, down, left, and right on the screen.



FIGURE 1-24 The Minimize Button

9. To minimize WordPad so that it appears only on the Start menu's taskbar, choose the **Minimize** button. (See Figure 1-24.)

10. To restore WordPad and have it appear once again on the desktop, tap the WordPad icon on the taskbar. (See Figure 1-25.)



FIGURE 1-25
WordPad Taskbar Button

11. To close WordPad, tap the **Close** button.

Activity 1-8 OPEN AND SWITCH BETWEEN MULTIPLE APPLICATIONS

1. Open the following applications, all found in the ***Microsoft Office*** folder, and leave them open on your desktop:
   - Microsoft PowerPoint
   - Microsoft Excel
   - Microsoft Word
2. Use the **Restore Down** button and the resize handle to resize each application so it appears about one-third the size of the desktop.
3. Switch to each application one at a time by tapping its icon on the taskbar at the bottom of the screen.
4. Switch to each application by clicking or tapping its title bar or application window.
5. Switch to each application by pressing the **Alt** key followed by the **Tab** key (**Alt + Tab**). Press **Alt + Tab** several times to switch to each open application.
6. Close each of the three open applications. If asked to save, choose **No**.
7. Open the following applications, all found in the ***Accessories*** folder:
   - WordPad
   - Calculator
   - Paint

DigiTip

There are several additional ways to scroll through many open windows. The most common is with the **Alt + Tab** keystrokes. You can also view open windows in a rolling index view, but only if you have Windows Vista or Windows 7.

If you have a PC running Windows 7 or Windows Vista, look on your keyboard for the Windows key. It has the wavy four-pane window like the one seen on the Start button. Complete steps 10–13.

8. Press the **Alt** key followed by the **Tab** key (**Alt** + **Tab**). (See Figure 1-26.) While holding down the **Alt** key, tap the **Tab** key and scroll through the list until you highlight the WordPad window; then release both keys. WordPad will pop to the screen.
9. Pressing **Alt** + **Tab** again, tap the **Tab** key, and scroll through the list until you highlight the Calculator window; then release both keys. The Calculator will pop to the screen.

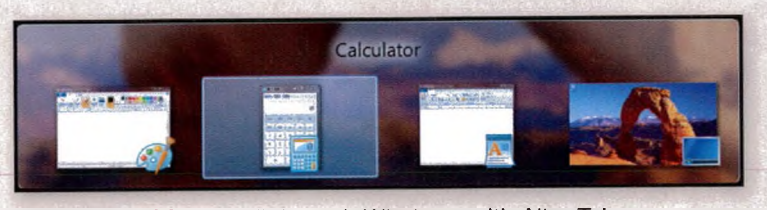


FIGURE 1-26 Scroll through Windows with Alt + Tab



FIGURE 1-27 Scroll through Windows with Windows + Tab

10. Hold down the **Windows** key on your PC keyboard and then press the **Tab** key (**Windows** + **Tab**).
11. While still holding the **Windows** key down, tap the **Tab** key repeatedly to scroll through the applications one at a time. On the second pass, stop on the Calculator as shown in Figure 1-27.
12. Press **Windows** + **Tab** several times again, and stop on the Desktop.
13. Look at your taskbar. All of your open but minimized applications are there. Reopen each and close them one at a time.

START SEARCHING FOR APPS AND CONTROL PANELS

One of the advantages of the Windows 7 and Windows Vista operating systems is their ability to quickly search and find files, folders, Control Panels, and applications from the Start menu. If you have Windows 7 or Vista, complete the following activity. If you are using Windows XP, you should read through it so you are familiar with the features for your future Windows use.

Activity 1-9 USE START/SEARCH IN WINDOWS 7 AND WINDOWS VISTA

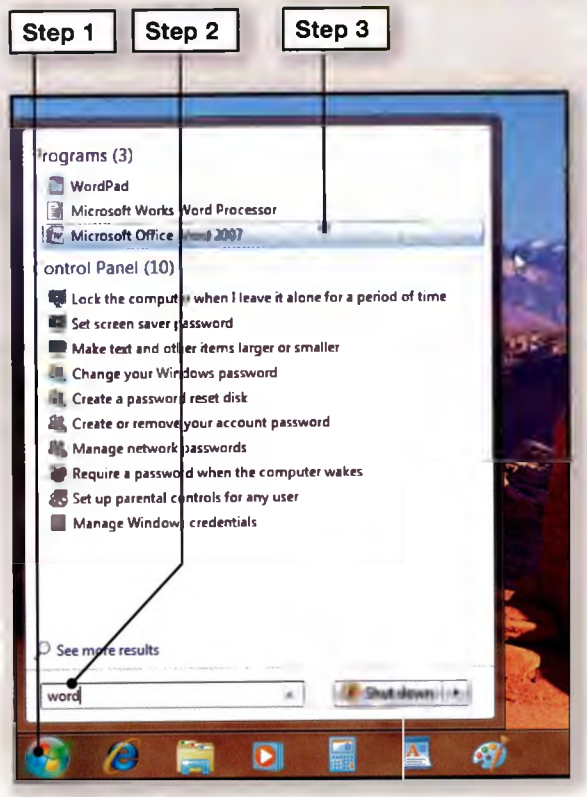


FIGURE 1-28 Search for Files and Applications

1. Choose the **Start** button.
2. Key **Word** in the search box.

DigiTip

You do not need to key the entire name before the name appears. For example, if **Word** is keyed, Microsoft Office Word will be listed along with WordPad and other applications and files containing "Word."

3. Pick **Microsoft Office Word** from the list and open it. Leave Word open and continue.
4. Key **Excel** in the search box, and open **Microsoft Office Excel** from the list. Leave Excel open and continue.
5. Use the same technique to open the following apps, and leave them open on your desktop:
   Paint
   Personalization
   Printers
   Calculator
6. Scroll through your open applications by using **Alt + Tab** and **Windows + Tab**, and then close all the open windows.

LESSON 1-4 Windows 7 Extra Know-How

IN THIS LESSON YOU WILL:

Objectives

1. Use Quick Peek, Quick Launch, and the taskbar to open applications and pin and unpin applications to your Start menu.
2. Shake and snap open applications, shuffle taskbar icons, and pop applications into position for comparison.
3. Open gadgets and apps on the desktop.

WINDOWS 7 SHAKES THINGS UP

There are many basic activities that all OSs on PCs need to do, like finding your printer, adjusting your audio, and personalizing your desktop. But Microsoft's programmers believe that you should be able to do more, so they shook things up in Windows 7 to provide users with some exciting new features.

In this lesson you will flip things around, pin icons where you need them, and shake up your PC—literally! You will also be able to dress up your desktop with gadgets and helpful apps. So get your hands on your mouse or digital pen; this will be fun.

Activity 1-10 PIN, PEEK, AND JUMP

DigiTip Rapidly minimize all the open application windows behind the app you want to use by shaking the application by its title bar from left to right.

DigiTip Minimized applications appear on the taskbar. You can open a new Calculator, pin it so it is always found on the taskbar, and close the open Calculator window.

1. Choose the **Start** button.
2. Open the following applications, all found in the *Accessories* folder:
   - **Paint**
   - **WordPad**
   - **Calculator**
3. Click on the title bar of the Calculator, and shake the Calculator several times quickly from left to right. This will minimize Paint and WordPad. Release the mouse button.
4. Bring Paint and WordPad back to the desktop by clicking again on the title bar of the Calculator, and shake several times quickly from left to right. Release the mouse button.
5. Because it is so much fun, shake the Calculator again to minimize Paint and WordPad again, and then click and minimize your Calculator.
6. Pin the Calculator to the desktop by right-clicking on the minimized **Calculator** icon on the taskbar and choosing **Pin this program to taskbar**. (See Figure 1-29.)
7. Right-click again on the **Calculator** icon on the taskbar, and choose the **Close window** option. This will close the open session of the Calculator. However, notice that even after you close the Calculator, its icon still appears on the taskbar because it has been "pinned" in place.
8. Unpin the Calculator by right-clicking again on the **Calculator** icon on the taskbar and choosing **Unpin this program from taskbar**. (See Figure 1-30.)

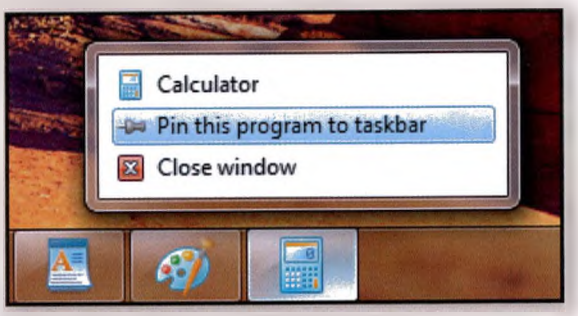


FIGURE 1-29 Pin Applications to the Taskbar

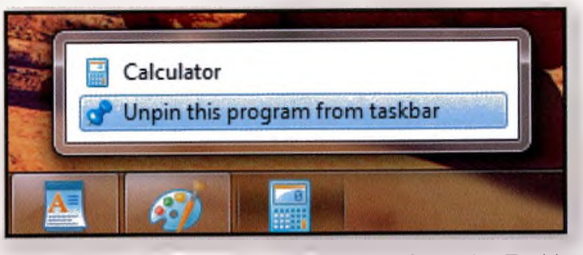


FIGURE 1-30 Unpin Applications from the Taskbar

9. Pin the Calculator once again to the taskbar, this time by clicking the **Start** button. If the Calculator appears in the Start menu's list, click on the icon and drag it to the

INSTANT MESSAGE

If you rest your mouse on almost any icon on the taskbar, or nearly anywhere else, you will see a tip telling you what the button does. This is called the tool tip as seen in Figure 1-31.

taskbar. (You can also right-click on the icon and choose **Pin to taskbar**.) If the Calculator does not appear in the Start menu, use the Search feature to bring it to the Start list; then click and drag it to the taskbar.

10. Pin the Paint and WordPad applications to the taskbar.

11. Open two copies of all three of these applications from the taskbar pins: two copies of Paint, and two copies of WordPad. (*Hint:* Click on the pinned icon to open the first copy, right-click on the icon and choose **Open** to open a second copy of each application.)

DigiTip

It can be very confusing when many copies of numerous applications are open at the same time. The taskbar shows stacked tabs for each copy of the application that is open but if there are a lot of applications it can be tough to see how many copies there are. Use Quick Peek on the taskbar when you have many application windows open.



FIGURE 1-31 Show Desktop Button

12. Click the **Show desktop** button to minimize all six of your open applications. It is found by clicking the rectangle in the bottom right-hand corner of the taskbar next to Open System tools, as shown in Figure 1-31.

13. Roll your mouse pointer over the minimized applications on the taskbar. Notice, as shown in Figure 1-32, how Quick Peek lets you see if you have opened multiple copies.



FIGURE 1-32
Quick Peek at Open Applications

14. Close all open applications.

SNAP, SHUFFLE AND POP

You are just getting started with the new Windows 7 features. In the next activity, you will pop open applications side-by-side so you can compare two documents. (See Figure 1-33.) You will find this a very valuable feature, especially when you use your Internet browser, word processing, presentation, and spreadsheet applications in future lessons.

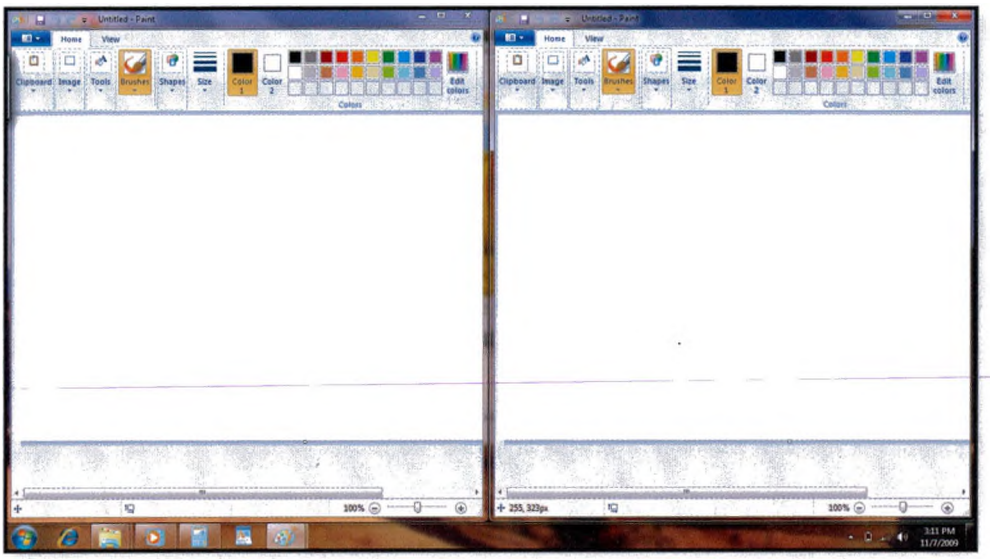


FIGURE 1-33
Applications Side-By-Side

You can also snap your applications by dragging them by their title bars to the top of the screen. And, to help you keep your taskbar organized, you can shuffle your pinned applications into any order you wish.

Activity 1-11 SNAP TO ATTENTION

1. Open two copies of the Paint application.
2. Drag one copy by the title bar to the left side of the screen. Watch the mouse pointer. When it reaches the left edge of the screen, half of the screen will be shaded; and when you release the mouse button, the window will fill the left half of the screen as seen in Figure 1-33.
3. Drag the second copy by its title bar to the right side of the screen. When the mouse pointer reaches the right edge of the screen, release the mouse button and the window will fill the right half of the screen as seen in Figure 1-33.
4. Return the windows back to their original positions by clicking and dragging the title bars to the center of the screen.
5. To snap an application to the height and width of your computer screen, click and drag one copy of Paint to the top of the screen. When the whole screen becomes shaded, release the mouse button. The Paint program is maximized.
6. To return the full-sized Paint window to its previous size, click and drag its title bar down to the center of the screen.
7. Click the **Calculator** icon and drag it over the other icons to reposition it elsewhere on the taskbar list.
8. Click the **WordPad** icon and drag it over the other icons to reposition it elsewhere on the end of the taskbar.

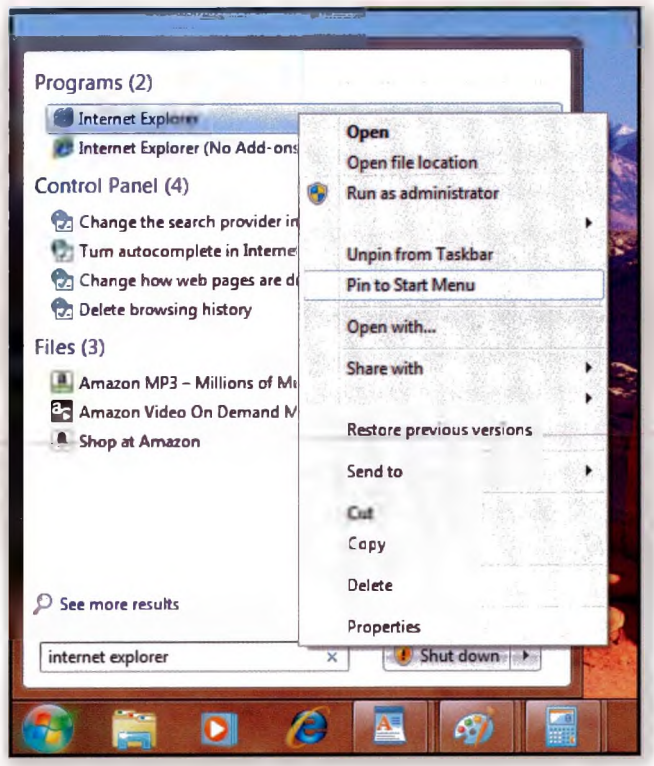


FIGURE 1-34 Pin Applications to the Start Menu

9. Click the **Paint** icon and drag it over the other icons to reposition it on the taskbar.
10. Click **Start**. Use the Search tool to locate the Web browser called **Internet Explorer**. When Internet Explorer appears in the Start menu, right-click on its icon. Choose **Pin to Start menu** as seen in Figure 1-34.
11. Practice by pinning both Paint and WordPad to your Start menu.
12. Unpin these applications from your Start menu by clicking **Start**, right-clicking on the application's icon, and selecting **Unpin from Start menu**.
13. Click **Start**. Look for an arrow next to any open applications (as seen in Figure 1-11 on page 9). This arrow is called the Jump Start button. Click on any of the Jump Start arrows to display the recent files or documents that have been created with that specific application. Use this feature to open one of your previously used features: For example, click **Start**, **Getting Started**, **Personalize Windows**.
14. Close all open windows.

GAUDY GADGETS AND AWESOME APPS

Gadgets are cool. They are not considered full applications because they are usually small and focus on a specific task. Therefore, they are often called apps (a smaller version of the word *applications*). There is an app or gadget to do just about anything you can think of. These are the same kind of apps you may find on your cell phone.

Activity 1-12 GETTING GADGETS

DigiTip

You can close applications by selecting the icon on the taskbar, pointing to the application, and clicking on the red X that appears.

1. Clear your desktop of all open applications.
2. Right-click on your desktop.
3. Pick **Gadgets** from the dialog box that appears.
4. When the Gadget selection dialog box appears, drag five or six interesting gadgets out to your desktop as seen in Figure 1-35. Make sure one of them is the Weather gadget.
5. Close the Gadget selection dialog box.



FIGURE 1-35 Gadgets and the Gadgets Dialog Box

6. Roll your mouse pointer over one of your gadgets. A toolbox showing two, three, or four options will appear in the right-hand side of each gadget as you point to it. Each gadget may have a different set of options, but the most common are:
   - Close
   - Large size control
   - Options control (to change the gadget's settings or preferences)
   - Drag handle
7. Click the **Options** button on the Weather gadget. When the Options dialog box appears, key your ZIP Code in the *Select current location* box, and click **OK** to get the accurate weather for your area.
8. Close one of the gadgets.
9. Move all of your gadgets to an appropriate spot on your desktop with the move handle.

DigiTip

Gadgets can be manipulated, moved, and altered by the options in the side toolbox, seen in Figure 1-36. Each gadget is a little different and the options will vary a bit from other gadgets.



FIGURE 1-36
Gadget Options

LESSON 1-5 Library, Folder, and File Management Know-How

IN THIS LESSON YOU WILL:

Objectives

1. View your storage media in different ways.
2. Learn about file and folder data storage.
3. Create, save, and store files and folders.
4. Open, rename, and save data files.
5. Manage your files by renaming, copying, moving, and deleting them.

Key Terms

file
folder
libraries
Moore's Law
multitasking
networks
storage media
subfolder

STORAGE MEDIA

Your computer's OS also communicates with the various storage devices on a computer. (See Figure 1-37.) Storage devices are essential for preserving everything you have written, taken a picture of, or created using your favorite applications. Storage devices are also called **storage media** and include:

- *Hard drives:* These are often referred to as the Local Disk C: (or some other letter) as shown in Figure 1-37. Local networks also save on hard drives on school or business computers.

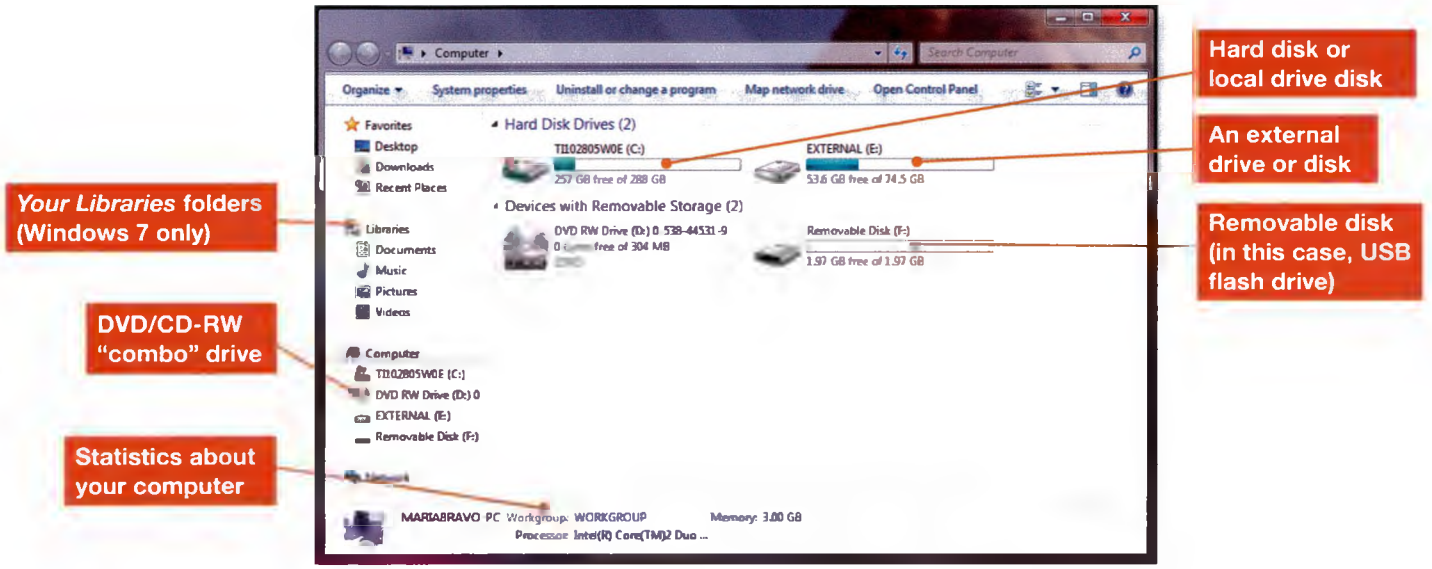


FIGURE 1-37 Media for File Storage

- *Compact discs for CD-RW or Digital Versatile Disk for DVD RW drives:* The RW stands for read/writable. You will need a CD-RW drive, also called a *combo drive*, or a DVD-RW drive in order to save data to a CD.
- *USB flash or thumb drives:* These include small, highly portable storage media that have virtually replaced older storage media like floppy disks and zip drives. They often appear on your PC as removable disks because they can be quickly plugged into a PC and then taken out and moved to another computer or digital device.
- *Online:* You can also save online, at various storage places on the Net. Learn more in the *Into the Cloud* feature in this and in future chapters.

Activity 1-13 VIEW THE STORAGE MEDIA IN DIFFERENT VIEWS

1. View the storage devices available on your PC. Choose:
Windows 7: **Start > Computer**.
Windows Vista: **Start > Computer**.
Windows XP: **Start > My Computer**.

2. Use the **Views** option to see your ***Computer*** folder and other icons in different ways. Choose:
   Windows 7: **More options.** Try the various options (see Figure 1-38) including: **Extra Large Icons, Large Icons, Medium Icons, Small Icons, List, Details, Tiles,** and **Content**
   Windows Vista: **Views.** Try the various options including: **Extra Large Icons, Large Icons, Medium Icons, Small Icons, List, Details,** and **Tiles**
   Windows XP: **Views.** Try the various options including: **Thumbnails, Tiles, Icons, List,** and **Details**



FIGURE 1-38
Storage Media in Large Icons View

3. Change your settings back by choosing:
   Windows 7: **More Options > Medium Icons.**
   Windows Vista: **Views > Medium Icons.**
   Windows XP: **Views > Thumbnails.**

4. Close your Computer (or My Computer) window by choosing the **Close** button.

ABOUT FILES AND FOLDERS

Applications create files. A **file** is a collection of saved information. Another name for this information is data. A file containing data can be just about anything:

- A report created in Microsoft Word or WordPad
- A Web or Facebook page created online

- A spreadsheet created in Microsoft Excel
- A photo snapped with a digital camera
- A movie or song downloaded from the Internet

Libraries are used to organize your most popular files in Windows 7. As you save your work or download files from the Net, new files are added to your personal library. To organize your files, your personal library will contain a number of **folders**. Folders are storing places. They are containers for all types of files. For example, the ***Pictures, Music, Videos,*** and ***Documents*** folders are seen in the personal library of Maria Bravo as shown in Figure 1-39.

While all versions of Windows allow you to get to your files in similar ways, Windows 7 provides the greatest range of options, as seen in Figure 1-39:

A. Click **Start > Your User Name > My Documents**.

B. Click **Start > Documents**.

C. Click the **Computer** button on the taskbar.

D. Click **Documents** from any Libraries list found in the side panel of any open Windows Explorer window.

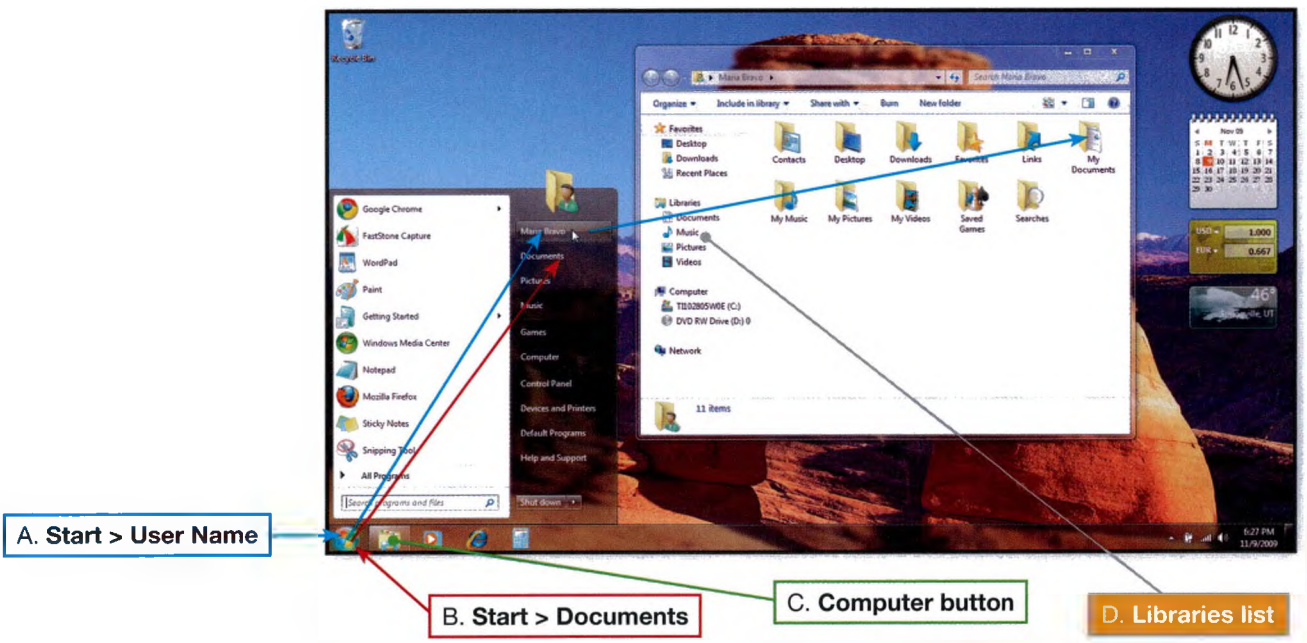


FIGURE 1-39 Ways to Store Files in Folders in Your Personal Library



Your system administrator may have assigned you a different folder in which to save your work and will need to show you its exact location. This location will be your starting point, your equivalent of a personal *<User Name>/(My)Documents* folder.

CREATING, SAVING, AND STORING FILES

INSTANT MESSAGE

Look for default folders and files that are already inside your *<User Name>* or *Documents* folders. Some of the default folders may include *(My) Music* or *(My) Pictures*.

Each application file has a different icon. For example, Microsoft Word documents have a little blue W attached to them. Excel documents have a green X. If you select one of these files or folders, statistics about the document appear at the bottom of the Documents window.

There are two types of folders: personal library folders and **subfolders**. Your *<User Name>* folder can be called your personal library folder. Any folder inside your personal *<User Name>* library folder, like your ***Documents*** or ***Pictures*** folders, can be called a subfolder. You can use any folder window to view, rename, copy, move, delete, and create new subfolders inside. In the next activity you will get a chance to make new folders and organize them in a way that will help you in your studies.

Activity 1-14 CREATE, RENAME, AND DELETE FOLDERS

1. To open your ***Documents*** folder, choose:
   Windows 7: **Start** > **Your User Name** > **My Documents**.
   Windows Vista: **Start** > **Your User Name** > **Documents**.
   Windows XP: **Start** > **My Documents**.

2. When the ***Documents*** folder appears, you may not be able to see much at first. Expand your window by resizing it outward.

3. If necessary, choose:
   Windows 7: **More Options** > **Medium Icons**.
   Windows Vista: **Views** > **Medium Icons**.
   Windows XP: **Views** > **Thumbnails**. (*Note:* On the Standard Buttons toolbar, click or tap twice on the **Folders** button so the File and Folder Tasks pane appears in the left panel of the window.)

4. Create a new folder by choosing:
   Windows 7: **New folder** as illustrated in Figure 1-40. (*Note:* You may also right-click in the middle of the Documents window and choose **New** > **Folder** from the pop-up menu.)
   Windows Vista: **Organize** > **New Folder**. (*Note:* You may also right-click in the middle of the Documents window and choose **New** > **Folder** from the pop-up menu.)
   Windows XP: **Make a new folder** from the side panel. (*Note:* You may also choose **File** from the menu bar followed by **New** and **Folder**, or right-click in the middle of the window and choose **New** > **Folder** from the pop-up menu.)

DigiTip

After you create the new folder, the words *New folder* appear next to the folder and the text is selected. You can name the folder simply by keying what you want the name to be. The words *New folder* will be deleted, and what you key will become the folder name.

5. Name the new folder ***DigiTools***. Then tap **Enter** or click or tap outside the folder to have the name accepted by your OS.

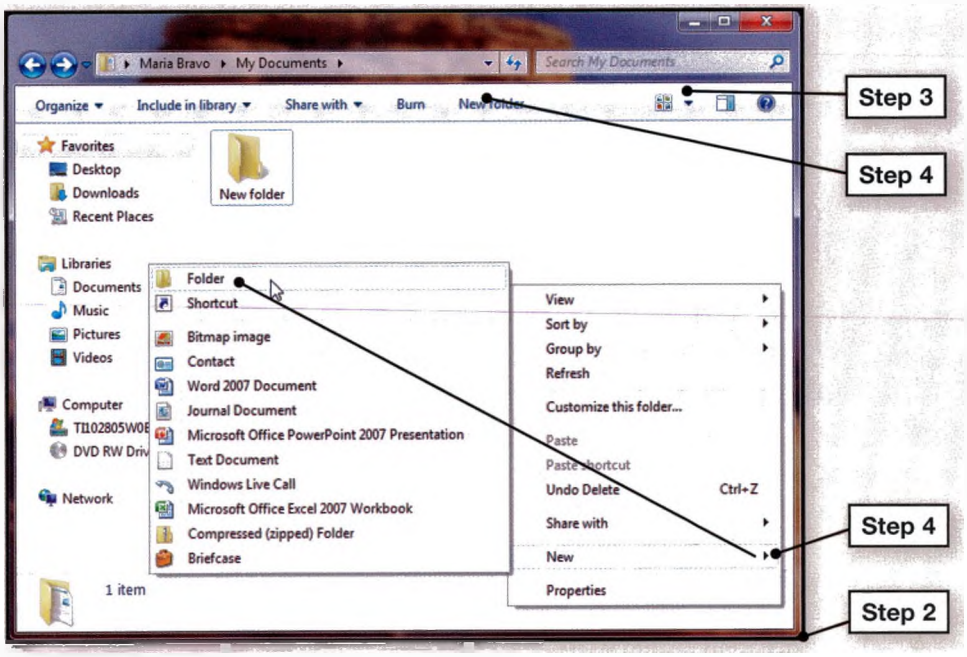


FIGURE 1-40 The ***My Documents*** Folder

6. Choose the ***DigiTools*** folder, as shown in Figure 1-41.

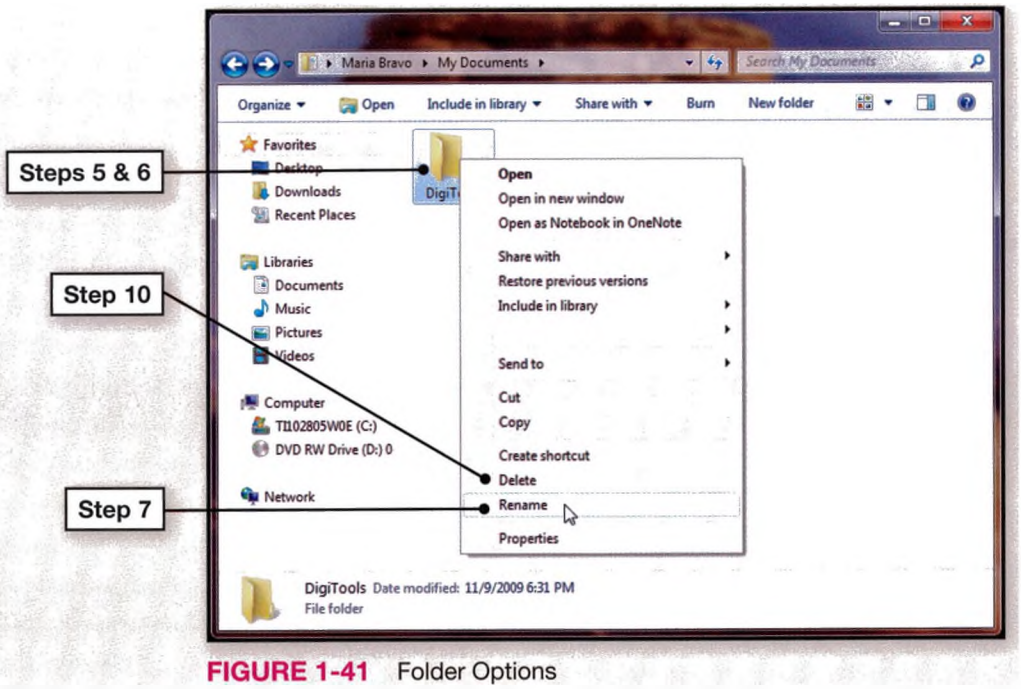


FIGURE 1-41 Folder Options

7. To change the name of the ***DigiTools*** folder to ***DigiTools Solutions***, choose:
Windows 7: **Organize > Rename** or right-click on the open window, and choose **Rename** as seen in Figure 1-41. Key the new name (***DigiTools Solutions***) in the box that appears. Tap **Enter** or click or tap outside of the new folder to accept the name.
Windows Vista: **Organize > Rename** or right-click on the open windows, and choose **Rename**. Key the new name (***DigiTools Solutions***) in the box that appears. Tap **Enter** or click or tap outside of the new folder to accept the name.

Windows XP: **File > Rename**. Key the new name (***DigiTools Solutions***) in the box. Tap **Enter** or click or tap outside of the new folder to accept the name.

When you select *Rename*, the current name of the folder is selected. If you start keying, the old name will be deleted and replaced with what you key. You can, however, use the arrow key to deselect the current name and move the cursor to the end of the name. In this way, you could just key additional text (such as *Solutions*) that you wanted added to an existing name.

8. Create another folder, this time called ***Big Mistake***. Tap the **Enter** key or click or tap outside the folder to have the name accepted.
9. If necessary, click or tap the ***Big Mistake*** folder to select it.
10. Delete the ***Big Mistake*** folder by choosing:
    Windows 7: **Organize > Delete** or right-click on the selected folder and choose **Delete** as seen in Figure 1-41. You will then be asked if you are sure you want to delete this folder and send it to the Recycle Bin. Choose **Yes**.
    Windows Vista: **Organize > Delete** or right-click on the selected folder and choose **Delete**. You will then be asked if you are sure you want to delete this folder and send it to the Recycle Bin. Choose **Yes**.
    Windows XP: **Delete this folder** (from the File and Folder Tasks pane). You will then be asked if you are sure you want to delete this folder and send it to the Recycle Bin. Choose **Yes**.
11. Open your new ***DigiTools Solutions*** folder by double-clicking or double-tapping it.
12. Create 17 chapter subfolders inside your ***DigiTools Solutions*** folder. Name them ***Chapter 1***, ***Chapter 2***, ***Chapter 3***, and continue to ***Chapter 17***. (See Figure 1-42.)
13. Create three subfolders inside your ***DigiTools Solutions*** for your Appendix chapter activities. Name them ***Appendix A***, ***Appendix B***, and ***Appendix C***. (See Figure 1-42.)
14. Close your ***DigiTools Solutions*** and ***Documents*** folders by clicking or tapping the **Close** button.

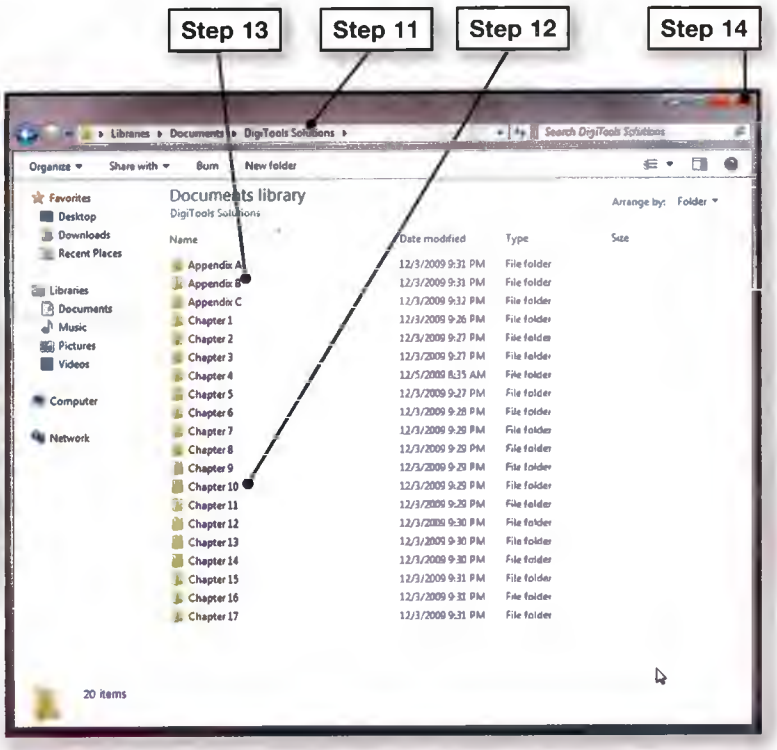


FIGURE 1-42 Chapter Folders

OPENING, RENAMING, AND SAVING DATA FILES

The Windows OS uses very similar commands for managing both files and folders. Because you know how to manage your folders, managing files will be a snap. In the next activity, you will open and save a data file from the ***DigiTools Data*** folder that accompanies this book. Data files will be used for many of the activities throughout this text, so it is important to become familiar and comfortable with this process.

Activity 1-15 OPEN AND SAVE DATA FILES

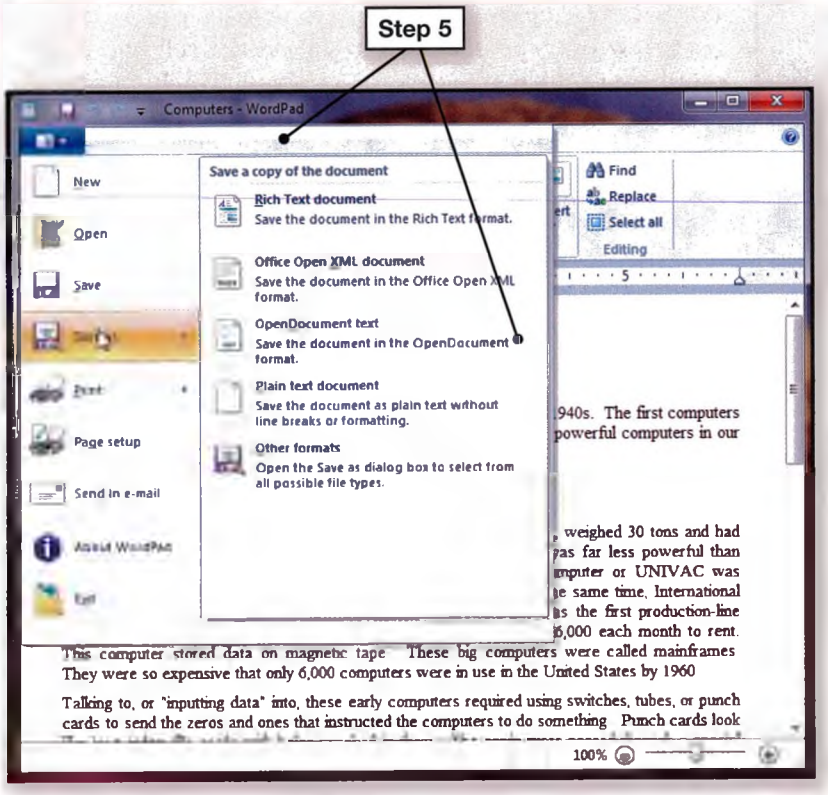


FIGURE 1-43 Saving Options

1. Open either WordPad or Microsoft Word.
2. Choose the **Office Button** for Word or the **WordPad Button** for WordPad, and then choose **Open** from the menu.
3. With the help of an instructor or system administrator, browse to and open the ***Chapter 1*** folder in your ***DigiTools Data*** folder for this book.
4. Select and open a file called ***Computers***.
5. After the file opens, resave the file by choosing the **Office** button or **WordPad** button followed by **Save As**, as seen in Figure 1-43.
6. To open your ***Chapter 1*** solutions folder:
   Windows 7: Your Documents library will open automatically. Pick ***DigiTools Solutions*** from the Documents library, and click or tap **Open**.
   Windows Vista: You may need to expand your Save As window in order to see your ***Documents*** folder. Do so by picking the **Browse Folders** button or by resizing the window as you learned to do earlier. Select ***DigiTools Solutions***, and then click or tap **Open**.
   Windows XP: Browse to your ***DigiTools Solutions*** folder.
7. In the Save As dialog box, from your ***DigiTools Solutions***, select and open the ***Chapter 1*** subfolder. As you open folders and subfolders, they will appear at the top of the window as indicated in Figure 1-44.

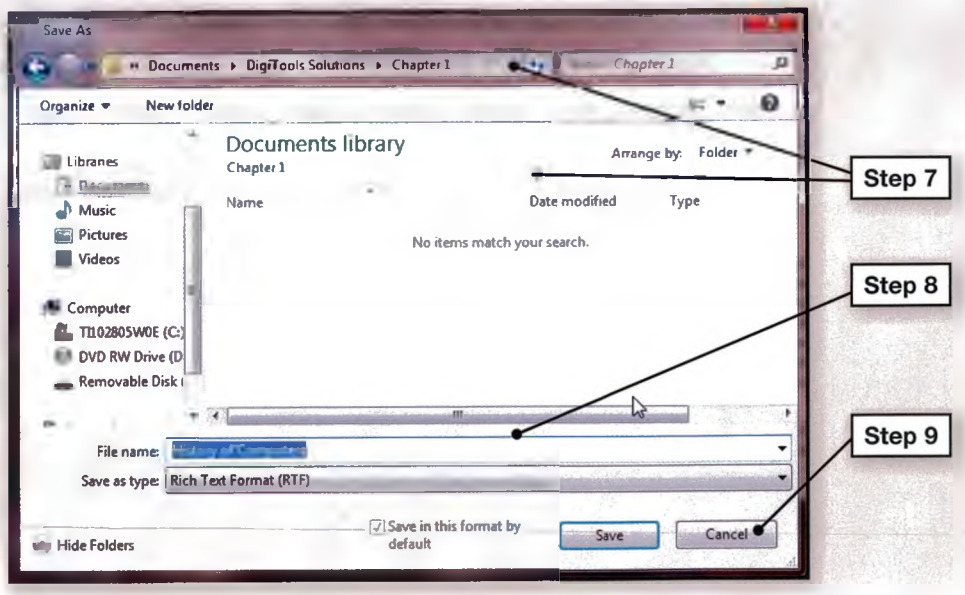


FIGURE 1-44
Save As Dialog Box

8. In the *File name* box, key **History of Computers**.
9. Select the **Save** button. (See Figure 1-44.)
10. Close Microsoft Word or WordPad.

MANAGING YOUR FILES

Now that you are comfortable working with folders in Windows, renaming, copying, moving, and deleting files will be a piece of cake. This is because the Windows operating system uses the same tools to accomplish these tasks for files as it uses for folders. The next activity will give you some practice and experience with these processes.

Activity 1-16 RENAME, COPY, MOVE, AND DELETE FILES

1. Open your ***DigiTools Solutions*** and ***Chapter 1*** subfolders.
2. If necessary, reset your Views options to display **Medium Icons**.
3. Select the file ***History of Computers***.
4. Change the name of the ***History of Computers*** file to ***Brief Computer History*** by choosing:
   Windows 7: **Organize** > **Rename** or right-click and choose **Rename**.
   Windows Vista: **Organize** > **Rename** or right-click and choose **Rename**.
   Windows XP: **File** > **Rename**.
5. Key the new name in the box. Tap **Enter** or click or tap outside of the new file to accept the name.
6. Copy the file and move it to a new location by first clicking or tapping the ***Brief Computer History*** file.
7. Copy the file by choosing:
   Windows 7: **Organize** > **Copy** or right-click and choose **Copy**.
   Windows Vista: **Organize** > **Copy** or right-click and choose **Copy**.
   Windows XP: **Edit** > **Copy**.
8. Scroll through your folders or use the **Back** button and return to your ***DigiTools Solutions*** folder. Then open your ***Appendix C*** folder.
9. Paste the file you copied in step 7 by choosing:
   Windows 7: **Organize** > **Paste** or right-click and choose **Paste**.
   Windows Vista: **Organize** > **Paste** or right-click and choose **Paste**.
   Windows XP: **Edit** > **Paste**.
10. Scroll through your folders or use your **Back** button, and return to your ***Digitools Solutions*** folder. Then open your ***Chapter 1*** folder.
11. Choose the ***Brief Computer History*** file.

12. Remove the file by choosing:
    Windows 7: **Organize** > **Delete** or right-click and choose **Delete**.
    Windows Vista: **Organize** > **Delete** or right-click and choose **Delete**.
    Windows XP: **Edit** > **Delete**.
13. Choose **Yes** when asked if you want to move the file to the Recycle Bin.
14. Close your ***DigiTools Solutions*** and ***Documents*** subfolders by clicking or tapping the **Close** button.

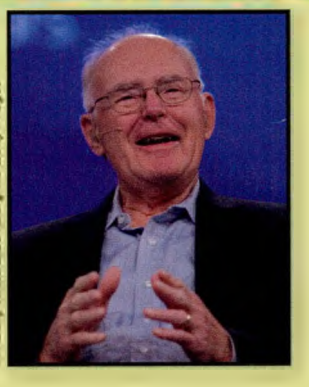
DIGITAL SNAPSHOT

Moore's Law

The processing power of microprocessors—their ability to make calculations and perform functions—is doubling about every 18 months. And they have been doubling at this rate for the past half-century, following an observation that is now called **Moore's Law**.

Gordon Moore, cofounder of Intel Corp., first wrote about this concept over 40 years ago. As Moore's Law observes, computer companies are making their microprocessors zippier and tinier with each passing year. Doubling the speed, power, and potential of microprocessors every few years dramatically increases what they can do—which has huge implications for the equipment we are already using as well as what will be available to us with each passing year.

For example, before the year 2000, computers were simply too slow to allow high-resolution graphics and video, speech recognition (typing by talking), or handtyping (converting your handwriting into keyed text). With the increased processor speed and power, these things can today be done by anyone buying a standard computer from the local electronics store.


Photo by Mike Blanchard/via Getty Images

Just a few years ago, PCs were not very good at **multitasking**; that is, doing more than one thing at a time. Today's computers are significantly better at this. You can simultaneously download music or updates from the Internet or voice-type a report while running virus protection scans of your system. And many processes can take place in the background without you even knowing about them.

INTO THE CLOUD

What is the cloud?

The cloud includes all the spaces and places on the Internet where you can visit and share what you create, who you are, and what you are doing. You can download games, gadgets, apps, movies, pictures, and more from the cloud. The cloud has become a part of our daily lives. It's where you go to do a Google or Bing search, research a paper for school, or save a presentation online to present in class the next day.

The cloud is not on your computer's hard drive—it is out on the Net where more and more information, gadgets, apps, and applications are finding their way each day. Your e-mail, instant messages, and Facebook updates all make their way through the cloud to your contacts and friends. Even your cell phone uses cloud technologies to link you to others.

To get to the cloud, you need to connect to a network. The cloud is made up of a system of interconnected . Networks are like the body's central nervous system. They allow ideas, thoughts, information, data, and yes, even money to flow through the online world, as seen in Figure 1-45.

Discussion:

1. Have you ever heard of the cloud or of cloud computing?
2. Now that you know what the cloud is, brainstorm and discuss some of the things that you would like to do in the cloud.
3. What types of cloud-based apps or gadgets do you know of that are found both on your cell phone and on your computer?

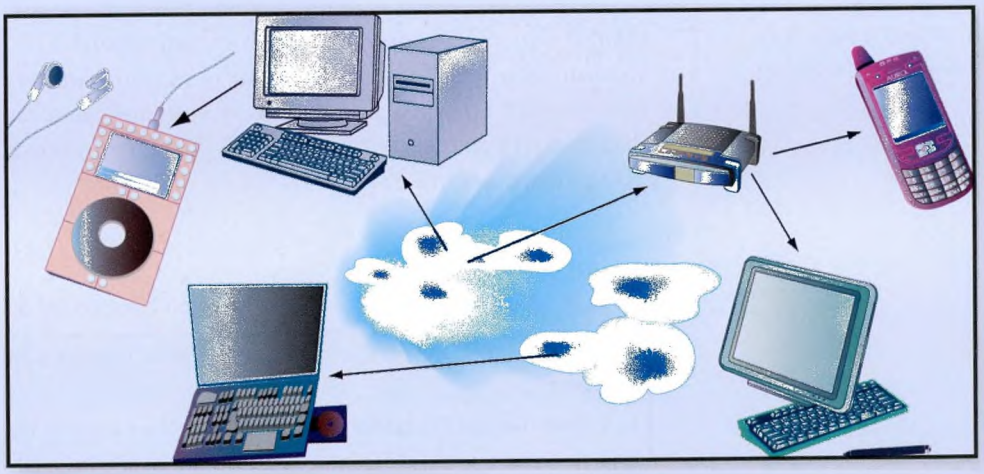


FIGURE 1-45 Computers Connected Through the Cloud

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 1-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools*.

Building Up: Your Math Skills

Exercise 1-2 ELIMINATING MULTIPLICATION MISERY

Okay, let's be honest. Most people cannot do multiplication in their head. Perhaps you can, and that is great. You will breeze through this Math exercise. For the rest of us, this exercise will help us overcome our multiplication deficit.

1. Look at the multiplication table below. Notice that there are some empty spaces in the table.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1		3		5		7		9	10		12	13		15
2		4			10			16		20	22	24		28	
3	3		9	12			21		27		33		39		45
4	4		12				28			40					60
5	5	10		20		30		40			55		65	70	
6				24	30		42		54	60		72	78		90
7	7	14	21	28		42		56			77	84	91	98	
8		16		32	40		56	64	72	80		96		112	120
9	9	18	27		45	54		72		90	99	108	117	126	
10	10	20		40		60	70	80	90	100			130		150
11		22	33	44	55		77		99		121	132	142		165
12	12	24		48		72	84	96	108		132		156	168	
13	13	26	39		65	78	91		117	130	143	156	169	182	195
14		28	4	56	70		98	112	126			168	182	196	
15	15		45		75	90	105			150	165		195		225

2. In your head, figure out the correct numbers to fill in to the empty spaces. If you do not know them, use the calculator that comes with your operating system to figure out the right answer, and then memorize it!

Building Up: Your Language Arts Skills

Exercise 1-3 FROM THE EDITOR'S DESK: SENTENCE STRUCTURE

1. Open a word processing application like WordPad or Microsoft Word. Go to your data files for Chapter 1 as you learned to do in Activity 1-15. Search for the file called ***Sentence Structure***.
2. Read the information provided. Follow the directions for completing the practice exercise.
3. Check your answers by comparing them with the answers on the bottom of the page.
4. Save your copy of this file as ***Exercise 1-3 Sentence Structure*** in your ***Chapter 1*** solutions folder.

Career Clusters

Thinking About Careers and Career Clusters

There are hundreds of thousands of different careers that you can choose from. We cannot possibly talk about them all. We can, however, organize the many jobs that people do into 16 Career Clusters. These Career Clusters can help you discover the kinds of jobs and careers you may be interested in learning more about. Table 1-1 introduces each of the clusters. We will study more about each one in the chapters to come.

TABLE 1-1 Description of Career Clusters

Career Cluster	Description
Information Technology 	Do you like computers, smart phones, iPods, websites, Facebook, YouTube, online apps, and games? Then you may like a career in information technology or IT. IT professionals can also maintain networks and telecommunications systems. Some IT professionals develop software and create online multimedia.
Hospitality and Tourism 	Like to eat? Like to travel? This may be the cluster for you. It encompasses the management, marketing, and operations of restaurants and other foodservices, lodging, attractions, recreation events, and travel-related services.
Education and Training 	Do you like to learn and help others learn as well? Then you may like a career in education and training. And not all education takes place in schools. Companies, the military, and government agencies always have a need to train their workers.

TABLE 1-1 continued

Career Cluster	Description
Business Management and Administration 	Would you like a career creating new products, services, and ideas to sell to others? Then business may be the career choice for you. Business involves organizing, managing, and evaluating the effectiveness of business activities.
Science, Technology, Engineering, and Mathematics 	Do you like to conduct experiments or take things apart just to see how they work? If you do, then a career in science, technology, or engineering may be just the thing for you. One thing all these careers have in common is a need to push your math education to the limit.
Manufacturing 	Want to design and make things? Large-scale manufacturing takes plenty of planning, management, and the ability to design and use the tools necessary to make quality products. This is a great place for designers, engineers, and technically skilled people. Computer training is essential to today's manufacturing jobs.
Agriculture, Food, and Natural Resources 	Everyone likes food. How would you like to produce the food everyone eats? And this Career Cluster is not limited to farming-related fields. It also involves the lumber and paper industries, fishing, mining, and any sort of product that comes from the earth. Protecting the environment and new green jobs that care for these natural resources are also a part of this career cluster.
Government and Public Administration 	Want to run for office? Having good candidates run for office to serve the country and local communities is important to the republic. But did you know that you do not necessarily need to run for office to work for the federal, state, or local government? Government employees do everything from working in foreign embassies, auditing taxes, and planning the growth of cities to maintaining parks, planning new libraries, and working in community centers.
Arts, A/V Technology, and Communications 	Do you like drawing, making movies, and designing Web pages? This may be the career for you. In this cluster you can design, produce, develop, or write Web pages, movies, plays, or get involved in the performing arts. Journalism and other essential communications services are also included in this cluster.
Marketing, Sales, and Customer Support 	Like to get people interested in the things you are interested in? Marketing is where the action is. Getting new products and ideas to the public takes a lot of creativity and skill. Sales is also a great career for the businessperson and a career path that has the potential to make lots of money. Customer support solves problems and keeps the customers happy and coming back for more.
Health Science 	Do you like helping people and finding the best way to take care of patients? This career path helps plan, manage, and deliver therapeutic, diagnostic, and health support services. This is also the cluster that includes biotechnology research and development.
Architecture and Construction 	Would you like to design and create houses and buildings? What about designing parks or putting in new landscape features for a business or city park? This career cluster will let you design, plan, manage, build, and maintain buildings, grounds, roads, airports, train stations, and all kinds of construction projects.
Transportation, Distribution, and Logistics 	Would you like to hit the open road to move goods and products around the country? That's one aspect of this essential career cluster. Transportation professionals plan and execute the movement of food, necessities, and luxuries by air, rail, road, and water. Without this vital worldwide service, millions of people would literally starve to death! You would not enjoy all the things you can buy at the local mall or be able to fill up your car with gas!

TABLE 1-1 continued

Career Cluster	Description
Finance 	How are your investment skills? Would you like a career in banking, insurance, or investment planning? You will need to learn accounting skills and all about how money makes the world go round.
Human Services 	How would you like a career helping other people find a job that they may enjoy doing? How about helping a family plan a wedding or assisting them with the death of a loved one? The opportunities in this career cluster are innumerable and span from home healthcare to social work to adoption services.
Law, Public Safety, Corrections, and Security 	Would you like a career saving lives and protecting people? Police and fire department services are listed in this vital career cluster. These jobs are not for the faint of heart. It also includes the law, court services, and the application of the law as well as homeland security services.

Exercise 1-4 RECORD CAREER OPPORTUNITIES



Work as a class to complete this exercise.

1. Have every class member pick their top three categories from Table 1-1. What three career clusters are they most interested in? Have them write their choices on a piece of paper.
2. Collect the papers from every student. On the whiteboard or smart board, tabulate the results.
3. Participate in a class discussion about the kinds of jobs that are actually available in each career cluster.
4. Ask the class to give examples of parents or others they know who work in each of the 16 career clusters.

21st-Century Skills

Team Initiative and Critical Thinking

Exercise 1-5 APPLICATION PREVIEW



Applications are also called *programs* or *software*. Some of the essential business and academic software you need to learn to use are previewed in this exercise. Each program has its own GUI icon to make it identifiable. Depending on your computer's software, your choices and icons may be different. Let's find out!

1. As a team, locate, open, and close as many of the applications shown in Table 1-2 as you can find, and answer these questions in a WordPad or Microsoft Word document.

Application Name	What does its icon look like?	What do you think it does?
Microsoft Backstage		
Internet Explorer (or Mozilla Firefox, Google Chrome, Apple Safari)		
Microsoft Office Word		
Microsoft Office PowerPoint		
Microsoft Office Excel		
Microsoft Office Access		
Windows Photo Gallery		
Microsoft Publisher & Word		
Microsoft Movie Maker		
Microsoft Office OneNote		
Microsoft Tablet PC Handwriting Recognition Tools		
Microsoft Speech Recognition		

TABLE 1-2 Applications to Find

2. Save your work as ***Exercise 1-5*** in your ***Chapter 1*** solutions folder.

Teamwork and Collaboration

Exercise 1-6 WINDOWS 7: CUSTOMIZE YOUR DESKTOP WITH GADGETS AND APPS



In Activity 1-12 you learned to add gadgets to your desktop. Now it is time to go online and search for some awesome apps and gadgets.

1. With a team member, find ten gadgets online that you really like. To make things a little more challenging, find at least one gadget that would fit into each of these three categories:
   - Personal Interest
   - Entertainment
   - Group Involvement
2. Get permission to download the gadgets and dress up your desktops with a few of your top picks.

Exercise 1-7 IGOOGLE: CUSTOMIZE YOUR ONLINE GADGETS AND APPS



Google has a way to customize your Google Search page. It is called iGoogle. iGoogle will let you collect apps and gadgets like an asteroid collects space dust. Just for fun, give it a try in this exercise. We will explore iGoogle and Google's Gadgets more in future chapters.

1. Go to www.google.com and click the **iGoogle** option. (You may need to set up a Gmail account first before you continue.) With a team member, go online in iGoogle in search of awesome gadgets. Find ten apps that you really like. To make things a little more challenging, find at least one gadget that would fit into one of these five categories:
   - Career Success
   - Personal Interest
   - Entertainment

- Education
- Group Involvement

2. Design your iGoogle page with your top ten gadgets and apps.

Exercise 1-8 CHANGE MORE WINDOWS SETTINGS



Have you personalized your PC exactly to your liking? Probably not. So this means it is time for a competition!

1. Form into teams of five.
2. Have a friendly competition between the members of your team to see who can create the most interesting desktop environment and theme. Jump into the personalization features and learn about themes, how to create your own customized background and a PC environment all of your own. Do not forget to personalize sounds and other features.
3. Share your creations, and then vote on whose creation is the best. Have a class playoff to see which team's representative has created the greatest masterpiece of PC creativity.
4. Share what you have done with other students, and get a few ideas on how they customized Windows to suit their needs and interests.

College- and Career-Ready Keying Skills

Exercise 1-9 OPPOSITE HAND REACHERS

1. Open a blank word processing document.
2. Key each line once at a comfortable, constant rate. Determine lines that need more practice. Repeat those lines. Then key the paragraph at the end of the lines of practice.

```
1 Diane may go to the dock to visit the eight girls.
2 She is to go with them to the city to see the dog.
3 The sorority girls paid for the auto to go to the city.
4 She is to go to the city with us to sign the six forms.
5 Dick may go to the big island to fix the auto for the widow.
6 Glen and the big dog slept by the antique chair on the dock.
7 Nancy may pay the men for all the work they did down by
  the lake.
8 They held the big social for their neighbor downtown at the
  hall.
```

There are thousands of careers. There is no way to learn about them all. This is where the Career Clusters help. The clusters organize careers into 16 groups. This will let you learn about each group. Pick the groups you are most interested in, and then study the careers in that group.

3. Save your work as ***Chapter 1 Keying Skills*** in your ***Chapter 1*** solutions folder.

Chapter 2

Digital Information, Access, and Search Skills

Lesson 2-1 A Browser Bonanza
Lesson 2-2 Searching Online Resources
Lesson 2-3 E-mail, Your Passport to the Cloud

JUMP INTO THE CLOUD

Everyone is familiar with the Internet. It has been called by many names: the World Wide Web, the Web, or the Net. It is also called the Internet cloud, or cloud for short. The cloud is your digital information superhighway. It connects you to the world's knowledge and all the people with whom you want to communicate.

The cloud connects hardware like computers, iPads, smart phones, TVs, and game consoles. It also links your hardware to vast amounts of information on websites, Facebook, and Twitter, YouTube, Netflix, instant messaging, e-mail hosts, and search tools like Google and Bing.

Businesses use the cloud to reach out to potential customers like you. For example, at SkiSolitude.com, the Solitude Mountain Resort Web site links you to page after page of snowboarding, skiing, and mountain biking information. It shares Solitude's current weather conditions, displays its live video-cam, gives safety tips, and explains its charities and community outreach projects. (See Figure 2-1.)



FIGURE 2-1 Solitude Mountain Resort's Public Web Space
(Courtesy Solitude Mountain Resort © 2010. Source: www.skisolitude.com)

At SkiSolitude.com, there are also links to Solitude's Facebook and Twitter pages. Facebook and Twitter are social networking sites. Social networking builds user communities online.

Facebook was created by Mark Zuckerberg and other IT students at Harvard University in 2003 (www.facebook.com). Twitter is a social networking and instant messaging service, created in 2006, by Jack Dorsey. On Twitter, instant messages are called *tweets*. Tweets are limited to 140 characters and can be sent by SMS (Short Message Service) from a phone. Tweets are posted online on the author's Twitter page. Followers of an author can read the tweets online or on their phones. (See Twitter.com.)

IT'S ALL INSIDE THE INTRANET



FIGURE 2-2 *Fortune* Magazine's List of Fortune 500 Companies

The SkiSolitude.com website, along with Solitude's Twitter and Facebook pages, are for public display. Solitude wants its skiers, boarders, and mountain bikers to see, enjoy, learn from, and participate in its online community. In contrast to the Internet, additional online activity takes place on intranets, outside the view of most people. An intranet is a sharing space reserved on corporate, educational, or governmental networks. Intranets are like private Net clouds for a company's employees and gives them a space to collaborate (work together) and share information.

In this chapter, you will access the intranet content of a simulated company called Corporate View. This intranet is modeled after the intranets of several Fortune 500 corporations (see Figure 2-2). Intranets are not open to the public. They are protected by passwords and security software to guard company content, which can include corporate secrets, strategies, new products, and research.

LESSON 2-1 A Browser Bonanza

IN THIS LESSON YOU WILL:

Objectives

1. Use browser software to access both Internet and intranet websites and learn to use three different types of hyperlinks.
2. Follow a path to Net resources such as an intranet website.
3. Navigate to important business information online and discover how teamwork in business units and mission-critical departments can make companies more successful.
4. Copy and paste images and text from the Web to a word processing document.
5. Bookmark or add important sites to a personal favorites list.

Key Terms

- browser
- directories
- hyperlinks
- hypertext transfer protocol (HTTP)
- links
- mission statement
- underscore
- Uniform Resource Locator (URL)

BROWSER BRILLIANCE

To get to the cloud and its Web sites and intranets, you will need a **browser**. A browser is a software application that allows users to find the content they need and to view multimedia online. As of the publication of this book, the four most popular browsers are:

- Mozilla Firefox
- Internet Explorer
- Google Chrome
- Apple Safari

The competition between browsers is fierce. Luckily, all of these browsers are similar and very easy to use. This makes it convenient for businesses like Solitude Mountain Resort to share information online. They can put up a site and know that people will be able to see it. If they choose, they can even create pages for specific audiences like the media (which includes television, radio, other websites, or print magazines). Figure 2-3 illustrates some of the common parts of a typical Web browser.

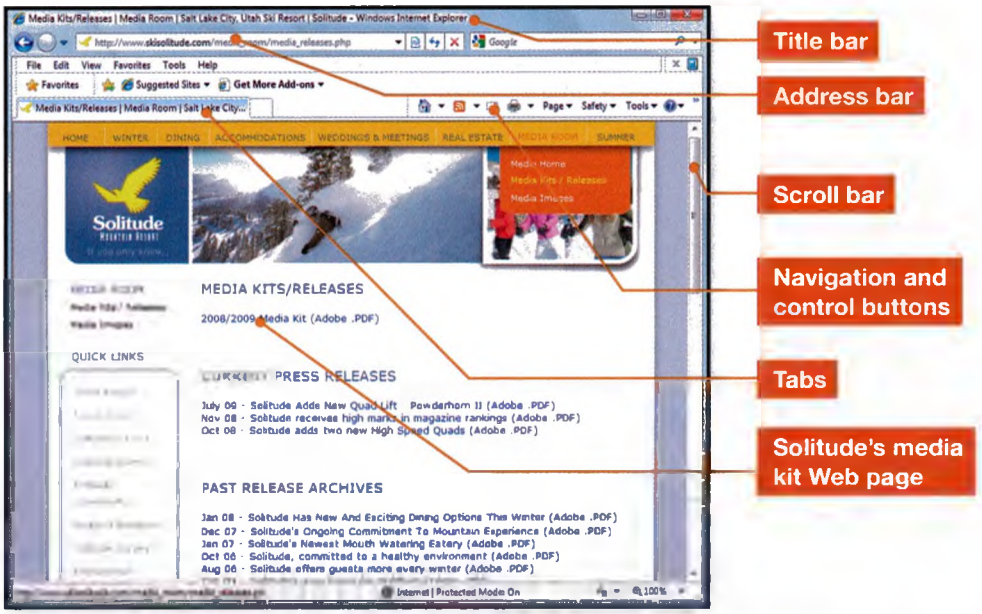


FIGURE 2-3
Solitude Mountain Resort makes its media kit and press releases available online via any Web browser. (Courtesy Solitude Mountain Resort © 2010: Source: www.skisolitude.com)

HYPERLINKING A PATH THROUGH THE NET

Hyperlinks, or **links**, are the tools that first made the Web popular. This system of interlinking pages is so easy to use that people cannot resist clicking or tapping to see what is behind interesting links. Touch screens allow you to find what you are looking for by touching links that appear on a computer's monitor. (See Appendix A.) If you have a microphone, you can also speak the name of any hyperlink aloud using speech recognition to go to a new Web resource. (See Appendix B.)

A hyperlink can be any word, phrase, or picture that—when clicked, touched, or spoken—will take the user to another location. Hyperlinks can link to information found on:

- The same Web page
- Another Web page on the same website
- A completely different website—which can be located anywhere in the world.

Figure 2-4 (see page 43) illustrates various hyperlinks on the Corporate View home page.

FOLLOW THE PATH TO THE MISSION

Every business and organization is on a mission to be successful. They often post their goals and purposes in the form of **mission statements**. The Solitude Development Team is a good example. Their goal is to help train young ski racers for United States Ski Association racing events.

> *Mission Statement:*
>
> *To create well rounded athletes and skiers that are aware of safety, sportsmanship, mountain etiquette, teamwork, and to reach their full potential through the experiences, education and fun provided by the Solitude Development Team.*

Like Solitude's Development Team, corporations often publish their mission statements for employees to read. Everyone working for the company should review their corporate mission statement and work with their teams to accomplish the goals laid out within it. By following a path of links, you can go from page to page until you find it. (Read *Digital Snapshot: Navigating Through the Clouds.*) In this activity you will go online and follow the path to Corporate View's mission statement.

Activity 2-1 ACCESS AN INTRANET FROM THE WEB

Watch the Video
Go to the video for this lesson.

A video illustrating how to perform the skills in this lesson is available from your instructor or online at: www.cengage.com/school/keyboarding/digitools.

1. Start your Web browser.
2. Key the Web address **www.cengage.com/school/keyboarding/digitools** in the address bar. Tap the **Enter** key.
3. Choose the **Corporate View Intranet** link.

The Corporate View intranet splash screen appears, as seen in Figure 2-4.



FIGURE 2-4 The Corporate View Intranet Website

INSTANT MESSAGE

If you do not have access to the Web, you may be able to use a local copy of the Corporate View intranet instead. Obtain from your instructor or network administrator the exact location of the local copy of the Corporate View intranet.

DigiTip

A splash screen is the first page or the "welcome page" that visitors view when entering a website. Some call it a "home page," while others call it a "landing page."



FIGURE 2-5 Regular Features Link

4. From the landing page, choose the **Regular Features** link illustrated in Figure 2-5.

> **DigiTip** To choose a hyperlink, click it with your mouse, tap it with your digital pen, or speak the link name when using speech recognition.

5. Choose the **All About Corporate View** link shown in Figure 2-6.



FIGURE 2-6
Path to Corporate View Mission Statement

6. Choose the **Mission Statement** link, and read the brief statement.
7. Open a new document (in WordPad, Word, or in another word processing application), and begin taking notes.
8. List the words in the blanks below in your notes. When complete, you should have ten words in your list.
   a. The mission of Corporate View is to ____1____, ____2____, and ____3____ quality ____4____ and solutions for its customers and to make a ____5____ for its stockholders.
   b. Effective and creative ____6____ are the keys to customer satisfaction and stockholder earnings.
   c. To enhance employee effectiveness, Corporate View will encourage ____7____ and ____8____ at all levels, increase the ____9____ skills of its employees, and enhance ____10____ among Corporate View business units, departments, and teams.

> **DigiTip** If you go too far back, click or tap **Forward**.

9. In your browser, click or tap **Back** two or three times to return to the splash page, and then pick one of the departments that interests you. It may be Corporate Communications, Marketing, Finance, or Information Technology as seen in Figure 2-7 (see page 47).
10. In your notes, list the department (or business unit) you picked in step 7. Answer the following questions:
    a. Why did you pick this department or business unit?
    b. What kinds of jobs do you think are available in this department or business unit? List three possible job or career options in your document.
11. Save your notes as ***Chapter 2 Notes*** in your ***Chapter 2*** solutions folder, and leave them open for the next activity.

DIGITAL SNAPSHOT

Navigating through the Cloud

Your Web browser uses Web addresses like a map through the cloud to whatever resource you are looking for. A Web address is formally known as a **Uniform Resource Locator (URL)**. URLs are part of the uniform system of naming that allows your Web browsers to follow the precise path to the resource you are looking for. Resources can include Web pages, graphics, text files, video clips, movies, music, or other content.



Roca/Shutterstock.com

DIGITAL SNAPSHOT 2.1 The Image Named ***media_images_Red_jacket_fml_lr.jpg***

URLs can look intimidating. But if you take them a little bit at a time, they are easy to navigate. For example, look at this URL:

http://www.skisolitude.com/downloads/media/media_images_Red_jacket_fml_lr.jpg

When you enter a URL, your Web browser immediately locates the computer where the resource is located. In this case, the host computer can be identified by the first part of the URL: www.skisolitude.com.

As you learned, computers store files in folders, also called **directories**. In our example, the first folder that needs to be opened is called ***/downloads/***, and the next sub folder in the path is called ***/media/***. Folder or directory names are separated by slashes (/).

If you continue down the path through the ***/downloads/*** folder, you will be taken to the exact file you are looking for. In this case, it is the JPEG (.jpg) image seen in Digital Snapshot 2.1, (You will learn more about JPEG images in Chapter 8). This very long filename separates words with the "_" symbol, which is called an **underscore**: ***media_images_Red_jacket_fml_lr.jpg***.

Years ago, you needed to key *http://* before a Web address. The *http://* is a signal to the browser to use **hypertext transfer protocol (HTTP)** to acquire the requested information. Browsers now automatically enter *http://*, as well as *www.*, for almost any URL address that you key.

TEAMWORK IN EXPLORING MISSION-CRITICAL DEPARTMENTS

A team is a group of people who share a common mission, tasks, and goals. When you go to work for a business, you will be assigned to a team. To encourage teamwork, large corporations break themselves into smaller teams called business units and departments. These are somewhat like little companies inside bigger companies.

Departments are responsible for *mission-critical functions* within the company. When you are in a business unit working together to achieve a common mission, it can feel like working in a "business family."

Business families are needed in small businesses, like Solitude Mountain Resort, as well as gigantic corporations like Google, Microsoft, and Wal-Mart. Each mission-critical department is critical. A failure to "get the job done" by any of these teams can cause any business to fail; with teamwork, these mission-critical teams can help any business thrive.

- *Research & Development:* R&D teams must keep the new ideas and products coming in if the business is to remain competitive.

INSTANT MESSAGE

Many big businesses feel that creating smaller teams and business units makes them more nimble, quick, and competitive.

INSTANT MESSAGE

Did you notice that the mission-critical functions of a business appear similar to the career clusters explored on pages 35–37 in Chapter 1?

- *Marketing, Sales, & Support:* Marketing teams create customer interest. Sales teams make sales and generate profits. Support teams keep customers happy, satisfied, and coming back for more.
- *Finance & Accounting:* The Accounting team helps businesses ensure they remain profitable, pay their obligations and taxes, calculate profits and losses, and draft financial reports for corporate officers and shareholders.
- *Information Technology:* The IT team must maintain all of the company's computers and digital devices as well as keep its website, intranet, and telecommunication systems working properly.
- *Legal Services:* The Legal team must first establish the company by filing the proper papers with government agencies. They must oversee contracts with partners and employees and represent the company in court.
- *Human Resources & Management:* The HR team is responsible for hiring, training, and helping each employee in the company with their benefits. Management must make sure every team is functioning properly and is contributing to the mission of the corporation.
- *Corporate Communications:* The Corporate Communications team is responsible for making sure corporate information is accurate and effectively communicated to every employee, partner, customer, and shareholder. This team can also work as a public relations, or PR, team.

Activity 2-2 INVESTIGATE MISSION-CRITICAL DEPARTMENTS



FIGURE 2-7 Navigation bars are found to the side or top of a typical Web page.

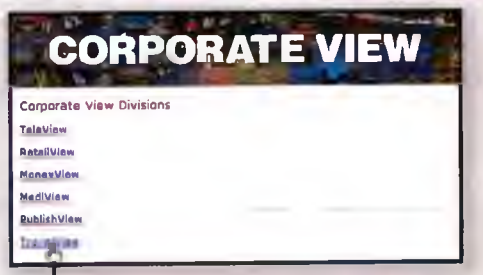
1. If necessary, open the Corporate View intranet as explained in Activity 2-1.
2. Choose the **Information Technology** link followed by **About Information Technology**.
3. Read the short online report about Information Technology.
4. If necessary, open ***Chapter 2 Notes*** from your ***Chapter 2*** solutions folder.
5. Write a short summary (25 to 50 words) of the information explaining what the IT department does and the duties for which it is responsible.

DigiTip

A navigation bar is a listing of hyperlinks to key sections inside a website, normally located at the top or side of a Web page.

6. Return to Corporate View intranet home page. (Click **Back** several times.)
7. Use links to find information about two of the other departments (of your choice) like Research & Development or Marketing. Write a short summary explaining what each department does and the duties for which it is responsible (25 to 50 words per function is sufficient).
8. Resave your completed summaries in your ***Chapter 2 Notes*** file in your ***Chapter 2*** folder.

Activity 2-3 COPY AND PASTE WEB INFORMATION



Step 3

FIGURE 2-8

1. If necessary, open your ***Chapter 2 Notes*** file from your ***Chapter 2*** solutions folder.
2. Open your Web browser and the Corporate View intranet. (See Activity 2-1.)
3. Choose the **CorpView Divisions** link seen near the bottom of the sidebar navigation links on the left side of the splash screen and then select TravelView from the list of Corporate View Divisions, as seen in Figure 2-8.
4. Read the brief history of the TravelView Lodge.

DigiTip

An easy way to copy is to select the text you want to copy first and then press Ctrl + C on your keyboard. (*Ctrl* is short for the Control key on your keyboard.) C stands for Copy. An easy way to paste is to press Ctrl + V to insert the copied text at the insertion point. That's right, V. Why V? No one really knows, but you can think of it like a wedge or a funnel squeezing the text into the desired location. You can also right-click to use the Copy and Paste commands that appear.

DigiTip

Copying a picture is a snap. Right-click on the image; then choose Copy Image or just Copy (the command varies a bit from browser to browser). You can also copy and paste images using Ctrl + C and Ctrl + V.

5. Copy and paste the title *The Birth of the Lodge* and the entire paragraph below the title from the Web page to your open ***Chapter 2 Notes*** document.
6. Scroll down the page and pick one of the pictures. Copy and paste it to your ***Chapter 2 Notes*** file next to your information about the TravelView business unit.
7. Continue to scroll to the bottom of the page, where you will see another link labeled *Organization Chart*. Choose that link. Copy and paste the Organizational Chart graphic from the Web page to your TravelView notes.
8. Resave ***Chapter 2 Notes*** in your ***Chapter 2*** solutions folder, and leave the document open.

RAPIDLY REMEMBERING YOUR WEB RESOURCES

It is often said that you can learn about everything and anything online—if you just know where to look, that is. The Corporate Communications team has created three very valuable resources for employees online:

- *Style Guide:* Content on how to write and format various document styles.
- *From the Editor's Desk:* Content on how to improve your business writing skills.
- *ShopTalk:* A list of commonly used business terms.

When you find useful Web content, you will want to save the URL for rapid reference. This is where favorites, or bookmark lists, come in handy. A bookmark or favorites list contains links that will whisk you directly to your most valuable websites.

Each browser has slightly different methods for bookmarking a location.

Firefox: To add a bookmark in Mozilla Firefox, choose Bookmarks followed by Bookmark this Page.

Internet Explorer: To add a Favorite site in Microsoft Internet Explorer, choose the Favorites button, and then click Add to Favorites. Key a new name for the page if necessary, and then click Add.

Chrome: In Google Chrome, click the yellow star next to the Web address entry box. Name the page if necessary, and then click Close.

Activity 2-4 CREATE BOOKMARKS

1. If necessary, open your Web browser and the Corporate View intranet as explained in Activity 2-1.
2. Choose **Corporate Communications** from the navigation pane, and then choose **Style Guide**.
3. Add this page to your favorites or bookmark list.
4. Choose **Regular Features** from the navigation pane. Next choose **ShopTalk**. Bookmark or add this page to your Favorites list.
5. Choose **Corporate Communications** from the navigation pane to return to that page. Then choose **From the Editor's Desk**. Bookmark or add this page to your favorites or bookmark list.
6. Click the **ShopTalk** page bookmark or favorite that you added in step 5. If necessary, open the ***Chapter 2 Notes*** document from your ***Chapter 2*** solutions folder. Look up the following eight terms and record the definitions in your notes. (Copying and pasting is completely okay.)

   FTP

   Branding

   Broadband

   Bureau of Labor Statistics (BLS)

   CAD

   Cookies

   Dot Coms

   Entrepreneur
7. Resave your ***Chapter 2 Notes*** file in your ***Chapter 2*** solutions folder, and leave the document open.

INSTANT MESSAGE

For security purposes, some network administrators may prohibit you from permanently creating and saving favorites or bookmarks.

LESSON 2-2 Searching Online Resources

IN THIS LESSON YOU WILL:

Objectives

1. Learn various search tool techniques.
2. Explore ways to analyze search results in terms of relevance.
3. Discover the difference between organic and sponsored results.
4. Research and find information on the Internet.
5. Explore fun ways to search on the Internet.

Key Terms

Boolean operators
cached
Internet Corporation for Assigned Names and Numbers (ICANN)
keyword
organic results
phrase searching
query
relevance
results
search tools
sponsored links
stemming
top-level domain (TLD)

SEARCH: THE ULTIMATE ONLINE RESEARCH TOOL

DigiTip

To learn more about search engines, visit a site like Search Engine Showdown (http://searchengineshowdown.com), which provides detailed descriptions and comparisons of various search engines.

The Internet contains billions of pages of information. Articles and reports can be found on almost any topic. Finding the exact information you need, however, can be a challenge. **Search tools** can help you meet this challenge. A search tool is a program that performs keyword searches to pinpoint the Internet content you need.

To use a search tool, log in to the Internet and open your browser program. Then key the URL of any search engine in the address bar. Some common search tools are listed in Table 2-1.

Google Google screenshot © Google Inc. and used with permission.	To access the Google search tool, key:	www.google.com
YAHOO! Reproduced with permission of Yahoo! Inc. ©2010 Yahoo! Inc. YAHOO! and the YAHOO! logo are registered trademarks of Yahoo! Inc.	To access the Yahoo! search tool, key:	www.yahoo.com
bing © PhotoEdit/Alamy	To access the Microsoft search tool, key:	www.bing.com
Ask Canadian Press via AP Images	To access the Ask search tool, key:	www.ask.com

TABLE 2-1
Popular Search Engines

DIGITAL SNAPSHOT

TLD: Top Level Domains

The last few letters following the period in a domain name are called the **top-level domain (TLD)**. Most people are familiar with .com. This top-level domain name is assigned to commercial business domains and websites. There are many others. Top-level domain names can give you some insight into the purpose of the site you are visiting.

Here are a few examples:

.edu	Educational domains
.mil	Military domains
.org	Organizational non-profit domains
.gov	Government domains
.tv	Tuvalu country code
.co.uk	Business in the United Kingdom
.jobs	Job search sites
.net	Network providers
.us	United States country code
.mx	Mexico country code
.biz	Business sites
.pro	Professional sites
.travel	Travel sites
.museum	Museum sites

Many other TLDs have been created by **ICANN (Internet Corporation for Assigned Names and Numbers)**. ICANN is responsible for Internet naming and numbering. You can look up top-level domain names at the organization's website at www.icann.org.

INSTANT MESSAGE

The top-level domain name .tv is the country code for the island nation of Tuvalu. The Tuvalu government often sells .tv domain names to media companies.

FIRST SEARCH

INSTANT MESSAGE

To simplify our examples, we will use Google, currently the most popular search tool, for these activities. Each search tool has its own guidelines. Research your search tool of choice in more detail by reading its help files.

Each time you conduct a search you are conducting a **query**, which is a type of question the search engine is asked to resolve. All search tools use some sort of filtering logic to satisfy your query based on the **keyword(s)** you enter. Early search tools used Boolean logic (see *Digital Snapshot: Boolean Operators* on page 55), but since then, search systems like Google have added other filtering criteria that lead to more productive searches.

Answers to a query are called **results**. A keyword search can produce a list of hundreds of thousands, if not millions of results. Notice that keywords in Google queries do not need to be capitalized. Here are a few examples of acceptable keywords:

- utah
- salt lake city
- slc
- big cottonwood canyon

Activity 2-5 NARROW DOWN YOUR KEYWORD QUERIES

1. Open your browser and key **www.google.com** in the address bar, and then tap **Enter**.
2. Key the words **ski snowboard** in the search window as shown in Figure 2-9, and tap **Enter** or click **Google Search**.



FIGURE 2-9 Simple Google Search

3. In your notes, record the number of results you received. As illustrated in Figure 2-10, this number is probably in the millions.

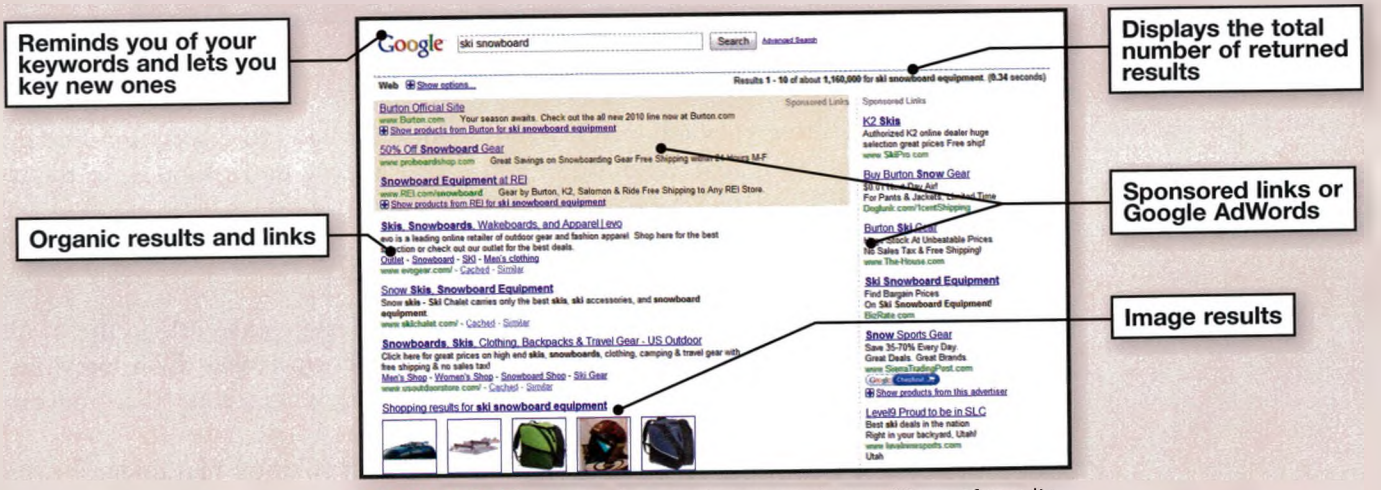


FIGURE 2-10 A few keywords can produce millions of results.

4. Scroll down through and review the variety of results that have been returned. Notice that they can encompass any topics related to *ski* and/or *snowboard*. For example:
   - Manufacturers making skis and snowboards
   - Books about skiing or snowboarding
   - Resort areas for skiers and snowboarders
   - Olympic competition results for skiing and snowboarding events

   Since these results are so broad, we will next narrow the search geographically.
5. Key the search words **ski snowboard utah**, and tap **Enter** or click the **Search** button.
6. In your notes, record how many results you received when you limited the search by geographical location.

ANALYZING SEARCH RESULTS

The results may contain dozens, thousands, hundreds of thousands, or even millions of entries. The main lists of results are often called **organic results**. These results occur naturally based upon the search criteria and the detailed mathematics applied by Google or other Web browser. They are *not* influenced by advertising dollars.

Depending upon the search tool, you will see a heading for **sponsored links**. These often appear shaded in color flanking the results on the side and/or near the top. Google calls these little advertisements AdWords. (See Figure 2-10.) These sites are listed because advertisers have paid to list them. These sites may not be the most relevant to your search if you are seeking academic information, but if you are looking to buy something, they may be exactly what you are after.

Digital Tip

How do you decide which results are valid or useful? First of all, results are sorted by **relevance**. This means that the websites or documents most likely to contain the information you want are listed first. But that may not always be the case. The information you need may be further down the list, or you may need to improve your keyword choices and try again.

A typical Google search result has different parts, as seen in Figure 2-11.

- *Title:* The first line or title of a Web page.
- *Snippet:* A description of or an excerpt from the Web page.
- *URL:* The Web page's address.
- ***Cached** and Similar page links:* The Cached pages link jumps to an earlier version of a page that has been saved by Google in case the page is down. The Similar link jumps to pages like the one described in the snippet.

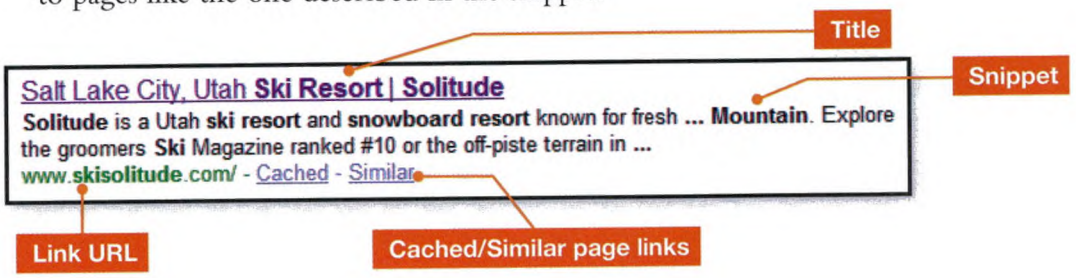


FIGURE 2-11
Typical Search Result

PHRASE SEARCHING, STEMMING, AND INSIGNIFICANT WORDS

As you surf the Internet looking for information, remember some of these important Google tips.

- Search engines, like Google, have **stemming** features, which find the stem of a word like ski, and include related words with different endings or tenses in the search, such as skis, skiing, skier, and skied. If you key the word skis, it will also search for ski. If you key the word snowboard, it will also look for snowboards, snowboarder, and the keyword snowboarding.
- Do not worry about capitalization. Big Cottonwood Canyon is the same as big cottonwood canyon.
- If you use multiple words, such as big cottonwood canyon, you will receive a list of results that correlates with all three words. But the correlation may be random. For example, you may be taken to a Web article that contains information about a big Art Festival in Western Canada on the shores of Cottonwood Lake, which is four miles up at a remote Canadian canyon. This may not be at all what you are seeking.
- You can turn individual words into phrases by using quotation marks; for example, "big cottonwood canyon" This is called **phrase searching**. The quotation marks force a search for the exact sequence of words enclosed within the marks.
- Google throws out small or insignificant words such as and, I, it, the, or, or single digits such as 1 or 7. This helps speed searching along, so do not bother keying them. Certain characters are also ignored, such as @#$%^&*()=+[]\ and many other special characters.
- If a normally insignificant word is absolutely essential to the success of a search, put a + directly in front of it preceded by a space; for example, +1.

Activity 2-6 EXPLORE PHRASE SEARCHING

INSTANT MESSAGE

Salt Lake City was the host of the 2002 Olympics and provides training facilities for future winter Olympians.

In the next exercise you will search for a specific Utah ski resort high in the Wasatch Mountains east of Salt Lake City (SLC), Utah. Imagine that you can only recall the vaguest details, but do remember that it is in Big Cottonwood Canyon.

Keep your searches simple. For example, it is better to key *ski snowboard utah "big cottonwood canyon"* than to key *I want to know more about skiing and snowboarding options in Utah, especially all resorts in big cottonwood canyon*, or even *skiing and snowboarding in utah's "big cottonwood canyon"*.

1. Open your browser if necessary, and key the address **www.google.com**.
2. Key the words *"big cottonwood canyon"* within quotation marks following your other search words: **ski snowboard utah "big cottonwood canyon"**.
3. If necessary, open your ***Chapter 2 Notes*** and record how many results came from your query. Did Google return results and links that mention the Solitude Mountain Resort?
4. Choose the **Similar** results link next to one of the links that discusses the Solitude Mountain Resort. Notice that pages with a high correlation to the page you just selected are revealed. Use this technique when you want to dig deeper into a topic.
5. In your ***Chapter 2 Notes*** document, copy and paste the top three results you have found talking about the Solitude Mountain Resort.
6. Save the ***Chapter 2 Notes*** file, and leave it open for the next activity.

Tip

Use the exact name, **Solitude Mountain Resort**, to narrow your search further. Did you find www.skisolitude.com?

Activity 2-7 TABULATE YOUR SUCCESSFUL SEARCHES

Working with your team, complete the following exercise:

1. Open Microsoft Excel.
2. Average and tabulate the data from your individual notes as you recorded them in your ***Chapter 2 Notes*** file.
3. Key your team's average results, as shown in Table 2-2. Formulas have been provided to make it easier for you to do the math in the *Reduction* of search results column.

	A	B	C	
1	**KEYWORDS**	**RESULTS**	**REDUCTION**	
2	ski snowboard	8,080,000		
3	ski snowboard utah	334,000	7,746,000	=B2-B3
4	ski snowboard utah "big cottonwood canyon"	6,670	8,073,330	=B2-B4

TABLE 2-2 Create this spreadsheet.

4. Save your work as ***Average Team Search Results,*** and save a copy in your ***Chapter 2*** solutions folder.

FUN WAYS TO SEARCH



© Corbis

FIGURE 2-12 There are many ways to search.

At one time, Web searchers needed to learn Boolean operators to search successfully. (See *Digital Snapshot: Boolean Operators* on page 55.) While Boolean operators are still helpful, searches are much less complicated and more intuitive with today's search tools. In this next exercise you will get the chance to try some of these fun new search techniques. You will:

A. Search for the types of books you would like to read, by keying:
   - books about triathlon
   - books about baseball

B. Query for a definition by keying define: and the word you want. For example:
   - define: biology
   - define: anthropology

C. Search for a street map by keying the address along with the city and state, or substitute the Zip Code for the city and state. For example:
   - 1860 Republican Road, Lincolnville, Illinois
   - 1860 Republican Road, 84663

D. Query a stock quote by keying the appropriate ticker symbol for the company about which you are inquiring. (Each of these companies has search tools.)
   - appl
   - csco
   - orcl

E. Conduct queries to find the weather in a city or at any airport by using its airport code or the name of the city as seen in these examples:

- weather nyc
- weather san francisco
- weather sfo airport

F. Imagine you are looking for great places to eat in Utah, but simply do not feel like Italian food. You can exclude Italian restaurants from the search by attaching the negative operator (–) preceded by a space:

- restaurants -Vietnamese

G. Pose queries in the form of natural questions such as:

- What is the population of Ohio?
- Who is the governor of Arkansas?

Activity 2-8 TRY SOME INTUITIVE SEARCH QUERIES

1. Go to **www.google.com**.
2. Search for books:

   books about skiing

   books on snowboarding
3. Conduct a search for the types of books you like to read. List the top three results in your notes. (If necessary, reopen ***Chapter 2 Notes*** from your ***Chapter 2*** solutions folder for keying your notes.)
4. Find a map for a location near Solitude Mountain Resort by keying:

   12000 e big cottonwood canyon rd ut

   or

   12000 e big cottonwood canyon rd 84121
5. Use the zoom control to move out from the location until you see the entire state of Utah.
6. Use your street address and Zip Code to find a map that zooms in on your street in your community.
7. Conduct a query to find the current stock price for Google, Yahoo, and Microsoft. Use the following ticker symbols:

   goog

   yhoo

   msft

   Record the current price of each in your notes.
8. Find the weather in Salt Lake City, which is about 30 miles from Solitude Mountain Resort. Key:

   slc airport

   weather slc

   Record the current conditions.

INSTANT MESSAGE

Learn about image, map, gadget, software, and video searching techniques online in future chapters.

9. Find a list of great restaurants in Utah, but exclude Italian food. Key:

   utah restaurants -italian

   Record the three top results in your notes.

10. Find a list of restaurants in your area, but exclude fast food restaurants. How complete a list did you obtain?

11. Use a natural question to find answers to the following queries:

    What is the population of Utah?

    Who is the governor of Utah?

    Record the answers to these questions in your notes.

12. Query for a definition by keying **define:** and the following words:

    define: meteorology

    define: metaphor

13. Create and ask five natural questions of your own. Record your questions and answers in your notes.

14. Save your ***Chapter 2 Notes*** in your ***Chapter 2*** solutions folder, and leave it open for the next activity.

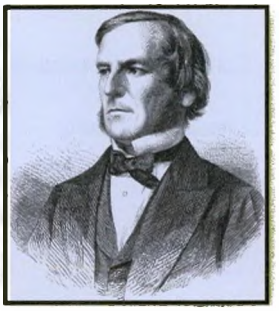
DIGITAL SNAPSHOT

Boolean Operators

Early search engines filtered their search results with **Boolean operators**, based upon principles invented by George Boole in the 19th century. In a Boolean search, operators are used to filter results based upon a YES or NO ranking system. Just like add (+), subtract (-), multiply (*), and divide (/) are primary operators of arithmetic, AND, OR, and NOT are the primary Boolean operators.

The AND operator instructs the search engine to search for all documents containing two or more keywords; for example, cats AND dogs. Some search tools used the plus symbol (+) as the AND operator. However, most search tools, like Google, simply assume the AND operator, rendering it largely unnecessary. But if you wish to use it, make sure AND appears in all capital letters.

The OR operator instructs a search to find documents containing either keyword specified. If the phrase *cats OR dogs* was keyed in the search box, all documents containing either word will appear. This operator has also fallen out of general use. In Google, for example, the word is simply omitted and has no impact on a search. If you think it will help your search and wish to use it, make sure OR appears in all capital letters.



©2010 Photos.com/Jupiterimages Corporation

The NOT operator excludes documents containing a defined keyword, such as *lions NOT bears*. In Google, if you put a - in front of any word, pages containing that keyword will be excluded from the results. (In Google you would write that *lions -bears*.)

Learn other ways to refine searches by choosing Google's advanced search option. Other search tools will have similar help sections.

LESSON 2-3 E-mail, Your Passport to the Cloud

IN THIS LESSON YOU WILL:

Objectives

1. Learn about e-mail alternatives.
2. Research e-mail netiquette.
3. Establish an e-mail account and send an e-mail.
4. Receive, forward, and read e-mail as well as add an attachment to an e-mail message.

Key Terms

electronic mail (e-mail)
Internet service provider (ISP)

E-MAIL AND E-MAIL PASSWORDS AND LOGINS

E-mail, short for **electronic mail,** is a popular type of digital message. Invented in 1971, it has become an important way of communicating for people, businesses, and organizations. You may be given an e-mail address through your employer, your school, or your Internet service provider. You can also find free or low-cost e-mail services online, such as Gmail from Google, Hotmail Live from Microsoft, or Yahoo!'s mail service.

Why do you need an e-mail address? First of all, it is a helpful means of communication. More importantly, your e-mail address is an essential login requirement in order to access online services in the cloud. An e-mail address is like a passport that will let you get the most out of Facebook, iGoogle, Yahoo!, or Bing live. You may already have an e-mail address, but if you do not, it is time to get one!

In this lesson you will create an e-mail account that you can use as your passport to the cloud. But before you do, read *Ethics: Netiquette* and complete Activity 2-9, which explains the rules for proper e-mail use.



Ethics

Netiquette

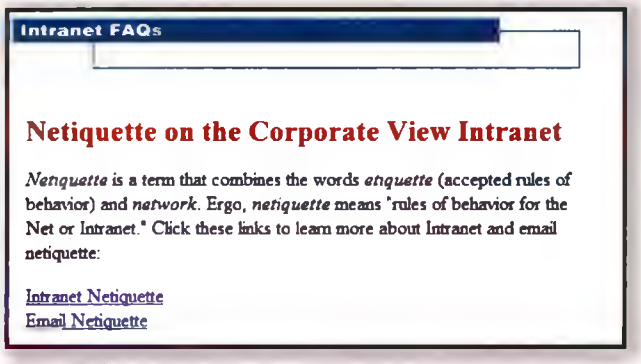
Communicating successfully, in person or via digital methods, requires following certain rules of behavior. For example, you would not answer a phone and start shouting at someone. The same rules of polite behavior should be followed when communicating electronically.

These rules are called *netiquette.* The word netiquette is a hybrid of *etiquette* (the requirements for proper social behavior) and *net* (from the word *Internet*).

In the next activity, you will review the rules for e-mail netiquette that Corporate View has established for its employees. These rules are generally accepted and are good rules for you to follow both in your personal correspondence and in business exchanges.

Activity 2-9 RESEARCH INFORMATION ON E-MAIL NETIQUETTE

1. Open your Web browser and the Corporate View intranet. Access the **Regular Features** page.
2. Choose the **Intranet FAQs** (Frequently Asked Questions) link followed by **Netiquette on the Corporate View Intranet**. Then choose the **Email Netiquette** link (seen in Figure 2-13). Read this section of the FAQs.
3. In your ***Chapter 2 Notes*** file, answer these questions:
   a. According to the intranet FAQs on e-mail netiquette, what is the proper length for an e-mail message?
   b. What is a possible problem with the *Reply to All* feature in e-mail?
   c. Is personal e-mail at Corporate View allowed? If so, how much?
   d. Do you think it is right or fair that IT employees at Corporate View have the authority to review personal employee e-mail sent over their e-mail system? Why or why not?
   e. What are *flames*?
   f. At Corporate View, employees should answer their e-mail within how many hours?
   g. Why should using all capital letters in an e-mail be avoided?
   h. Why are proper spelling and grammar in e-mail important?
   i. What are emoticons? Give an example.


Intranet FAQs

Netiquette on the Corporate View Intranet

Netiquette is a term that combines the words *etiquette* (accepted rules of behavior) and *network*. Ergo, *netiquette* means "rules of behavior for the Net or Intranet." Click these links to learn more about Intranet and email netiquette:

Intranet Netiquette
Email Netiquette

FIGURE 2-13 Netiquette FAQs Page

4. Resave your ***Chapter 2 Notes*** in your ***Chapter 2*** solutions folder.
5. Close the ***Chapter 2 Notes*** document.

ESTABLISHING AN E-MAIL ACCOUNT

To use e-mail, you must first establish an e-mail account. You may also need to set up an account with an Internet service provider. An **Internet service provider (ISP)** is a company or organization that provides customer connections to the Internet and related services.

Fortunately, most e-mail programs work in very similar ways. You should easily be able to apply what you learn to your own e-mail client.

People with whom you communicate by e-mail are called *contacts* (sometimes *buddies*). All contacts are accessed by their e-mail names. Before you can use any e-mail or instant messaging software, you must first have an e-mail address. Each e-mail address must be different from all others on the Web. Otherwise, e-mail messages may be delivered to the wrong person. An e-mail address contains a username and a domain name separated by the *at* sign (@). For example:

- Keisha@corpview.com
- Keisha.Takashi@cengage.com
- KTakashi@speakingabout.com

Spaces are not used in e-mail addresses. Sometimes an underscore or a period is used to separate first and last names. You need not worry about capitalization when keying e-mail addresses. Keisha.Takashi@corpview.com is the same address as keisha.takashi@corpview.com.

Activity 2-10 FIND AN E-MAIL PROVIDER



You may want to create a special, temporary e-mail account just for these exercises, leaving your personal e-mail account available for your normal use.

1. You may already have an e-mail account assigned by your school. If so, jump to Activity 2-11.
2. You may already have a personal e-mail account that you have created on your own. If so, you can also jump to Activity 2-11.
3. If you do not have an e-mail account, meet with your team. Help each member obtain an e-mail account they can use for these activities. Many free e-mail programs are available. Here are some of the most popular e-mail services available in today's Internet cloud:
   - Google's Gmail mail.google.com
   - Windows Live Hotmail login.live.com or www.hotmail.com
   - Yahoo! Mail mail.yahoo.com
4. Share your new e-mail address with members of your team.

Activity 2-11 SEND E-MAIL

1. Open your e-mail software. This might be an e-mail page in a browser (such as mail.google.com), an e-mail page made available by your ISP, or a software program dedicated to managing mail accounts (such as Microsoft's Outlook).
2. Open a new e-mail message screen. Click **Compose Mail**. (Similar options are **Create Mail** or **New Message**.) A new e-mail message form will appear.
3. Create a test message to each member of your team. In the *To* box, key each of your team members' e-mail addresses separated by a comma, such as:

   mkim@corpview.com, frank@corpview.com, davew@corpview.com
4. In the *Subject* text box, key a descriptive title, such as **Testing My Email Account**.
5. In the *Message* window, key a brief message such as: **I am testing my new email account. Please reply so that I know it is working properly.**

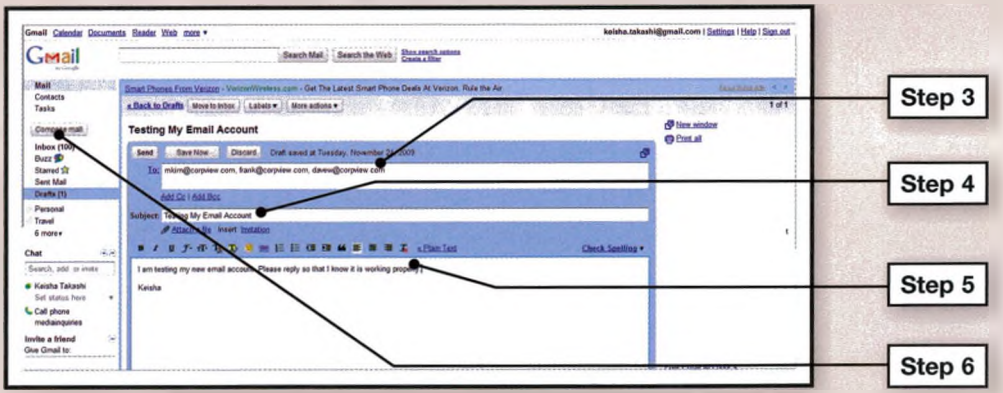


FIGURE 2-14 Compose Mail Message Window in Gmail

6. Click **Send** to send your message.

MAKING E-MAIL EASY

E-mail messages arrive in an *inbox*. You should manage your e-mail messages to prevent your inbox from becoming overcrowded. After you have finished reading an e-mail message, you can:

- Reply to an individual
- Reply to All of the people listed in the *To* and *Cc* fields
- Forward the message to another person
- Delete the message
- File or save the message
- Add an attachment and reply or forward on to others

To manage your e-mail most effectively, handle each e-mail message the first time you read it. When you open a message, reply to it if that is appropriate. Then delete the message, or save it in an appropriate folder if it contains information you may need later. Your inbox should only contain messages on which you have not yet acted. In the following activities, you will manage e-mail by reading, replying to, forwarding, and deleting messages.

Activity 2-12 RECEIVE, REPLY, AND FORWARD E-MAIL

1. Open your e-mail program and open your Inbox.
2. Open an e-mail by double-clicking or double-tapping on it.
3. Select the **Reply** button and key a message to indicate that you have, indeed, received the e-mail and all is well. (Notice that the correct e-mail address is automatically placed in the *To* field.) Reply to each of your teammates.
4. Double-click on any message from one of your teammates to open it.
5. Forward this message to another teammate by choosing **Forward**.

DigiTip

Most e-mail applications have an autocomplete feature for e-mail addresses that you have already used. This means you only have to key a few letters and a previously used address will automatically appear.

INSTANT MESSAGE

To completely clear out your deleted items folder, you may need to select the messages again and delete them in the deleted message's window or by choosing an option such as Empty Deleted Items Folder.

6. In the *To* address box, key the e-mail address of the person to whom you are forwarding the message. Key a brief note in the *Message* window such as **Testing the forward option of my email. TIA.** Choose **Send**.
7. Select a message from your teammate, and delete it by choosing the **Delete** option.
8. Open your ***Deleted Items*** folder, and see if the message appears there.
9. Return to your Inbox.

DIGITAL SNAPSHOT

Leadership and Teamwork

At some time you will become a member of a working team. And you may be required to provide leadership for that team. As a team leader, consider these guidelines:

- For a team to function well, each team member must understand the purpose or goals of the team.
- Set clear goals for the team and create an action plan for achieving them.
- Define the responsibilities of each team member in achieving team goals.
- Identify how success can be measured. How will the team know its goals have been accomplished?
- Identify obstacles to achieving the team's goals, and discuss ways to overcome them.
- Build on the strengths of individual members.
- Encourage all team members to participate.

Apply these guidelines in the team-working exercises that follow at the end of this chapter.

Activity 2-13 SEND AN ATTACHMENT TO TEAM MEMBERS

1. If necessary, open your e-mail program and a new message window.
2. Key the e-mail address of each of your team members in the *To* field.
3. In the *Subject* field, key **My Chapter 2 Notes**.
4. Choose the attachment feature. Browse until you find your ***Chapter 2 Notes*** file from your ***Chapter 2*** solutions, and attach it to your message.

DigiTip

Different e-mail programs place their attachment feature in different spots around the screen. Ask a friend, instructor, or team member if you cannot find it immediately.

5. Click **Send**.
6. Later, check your Inbox. As the messages from your teammates arrive, save their attachments to your ***Chapter 2*** solutions folder. Place their name in front of each file so you can tell them apart.
7. Close your e-mail program.

INTO THE CLOUD

The competition is heating up between Microsoft and Google for cloud computing applications that work for people and businesses. All you need to join in is an e-mail account you can use to login to the online systems! Good thing you already have one.

Google pioneered online application suites with its Google Docs applications. Now that you have your e-mail address, you can create a Google Docs account and generate online word processing, presentation, drawing, forms, and spreadsheet files. Since they are stored in the cloud, you can access them from any computer with any browser from anywhere in the world. And you do not have to worry about your computer's hard drive crashing and destroying all of your work. Everything is safely stored by Google in the cloud. There are also dozens and dozens of additional free software apps supplied by Google that can be used by individuals from around the world.

Microsoft is working hard to keep up. With Microsoft Office 2010, versions of its most popular Office applications are now available online in their new cloud site. Microsoft calls this space Office Live Workspace. You can create files in Microsoft Word, PowerPoint, Excel, and other Office applications in the cloud and synchronize them on your computer. This way, if you happen to be away from your PC you can still work without worries because all your important files can be stored by Microsoft in the cloud. To access these files, you will need to use your e-mail passport account. We will show you how to do that in the activities on the next page.

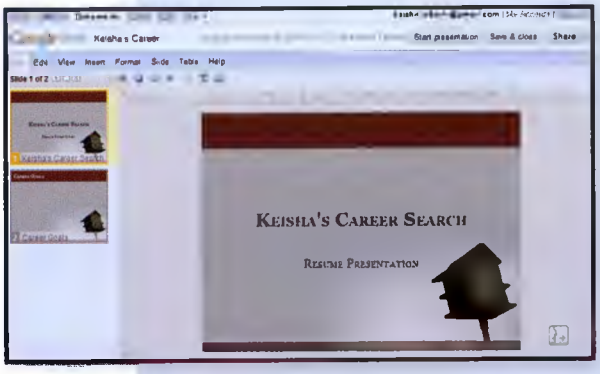


FIGURE 2-15A Google Docs in the Cloud



FIGURE 2-15B Online Versions of Microsoft Office in the Cloud

Discussion:

1. What are the advantages of having all of your important files saved online in the cloud?
2. How can cloud computing allow you to get your work done when you are not near your personal computer?
3. What are the disadvantages of storing all of your work in the cloud?
4. How easy is it to create an online account? (If you have not created one already, try the Online Connection exercises that follow to see just how easy it is.)

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 2-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools*.

Building Up: Your Math Skills

Exercise 2-2 SEARCHING FOR MATH SUPPORT ONLINE



Lost in the world of math? There is a world of help in the cloud.

1. As a team, use your search skills to find as many helpful math sites and math tutorial sources as you can.
2. Have each team member create a folder in their Favorites or Bookmark lists just for helpful math sites. Name this folder ***Math***.
3. Bookmark or add to your Favorites all the helpful sites your team has found, and store each in the ***Math*** folder.
4. See if one of your sites can help you figure out how to solve the problems in Exercise 2-3.

Exercise 2-3 CALCULATING A PERSONAL BUDGET

Instructions: Calculate expense amounts for a personal budget.

You have been hired for a job that pays $8.50 per hour. You are excited about your new job and want to move into an apartment of your own. You need to create a personal budget to help plan how to spend your money.

1. Open your calculator app or an online calculator gadget. (You could also use an online spreadsheet if you are skilled with that type of software.)
2. Multiply your hourly salary times an average of the number of working days in a month (21) times 8 hours per day. This will be your average monthly salary before taxes.

   $8.50 × 21 days × 8 hours = _____
3. About 10% of your monthly salary will be deducted for taxes. How much do you have left after taxes?

4. Calculate the amount of money you will likely spend for each type of expense shown below. Multiply the percentage for that expense times your monthly salary.

Housing	28%	_____
Food	16%	_____
Clothing	6%	_____
Health	4%	_____
Transportation	20%	_____
Long-Term Debt	12%	_____
Savings	6%	_____
Miscellaneous	8%	_____

5. Save your work as ***Exercise 2-3*** in your ***Chapter 2*** solutions folder.

Building Up: Your Language Arts Skills

Exercise 2-4 FROM THE EDITOR'S DESK: CAPITALIZATION RULES

Note: Starting with this exercise, all of your Editor's Desk exercises are located in the cloud! Follow these steps to the Corporate View intranet, and download some helpful lessons.

1. Open your browser software. Use the bookmark in your Favorites list to access the From the Editor's Desk page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications > From the Editor's Desk**.)
2. Choose the **Capitalization Rules** link. Copy and paste the questions to a word processing document, and answer the questions. (Read the information provided on the Web page and follow the directions for completing this practice exercise.)
3. Check your answers by comparing them with the answers on the bottom of the intranet page.
4. Save your work in your solutions folder as ***Exercise 2-4 Capitalization Rules***.

Career Clusters



Information Technology

Careers in information technology (IT) are dramatically growing. Businesses, government agencies, educational systems, and other organizations need skilled IT personnel to perform tasks as varied as:

- Repairing, updating, and networking desktop, portable, handheld, iPods, smart phones, and tablet computers.
- Creating and maintaining communications networks.

- Creating and maintaining Web pages, websites, intranets, and Web services such as e-mail, instant messaging, and video-conferencing.
- Programming computers and other computerized objects such as toys, cars, cell phones, video game consoles, microwave ovens, and other equipment that can make use of a microchip.

Table 2-3 illustrates some of the career opportunities in the information technology field.

Position and Yearly Salary		Position and Yearly Salary	
Computer Scientist	$76,970	Network Administrator	$56,440
Computer Programmer	$62,890	Web Art Director	$80,379
Software Engineer	$72,370	Graphic Design Specialist	$36,646
Computer Support Specialist	$41,920	Webmaster	$49,914
Database Administrator	$58,420	Technology Trainer	$47,747
Level 1 Web Designer	$40,864		

TABLE 2-3 Career Cluster: Information Technology

Work in the IT industry generally requires college-level education or industry-recognized certifications. Certification courses are taught at technical centers, community colleges, universities, and private career training institutes.

Exercise 2-5 IT ACRONYMS

TEAMWORK

Information technology professionals must learn many very technical terms to do their jobs effectively. You have probably felt like there were a lot of new technical terms in this chapter. A big part of the success of any job is learning the vocabulary. And, let's be honest, some terms are confusing.

1. Work with a team to learn what the following IT acronyms mean. You can use a Google, Bing, or Yahoo search to find out.
   - **a.** What is the difference between RAM and ROM?
   - **b.** What are a bit, a byte, a kilobyte (KB), a megabyte (MB), a gigabyte (GB), and a terabyte (TB)?
   - **c.** What does the abbreviation MHz stand for, and what does the term mean?
   - **d.** What do these acronyms for IT certification titles represent: CCIE, MCSE, MOS, OCP, DBA, Google GAP, and CNE? What skills do these certifications involve?
   - **e.** Network terms can be confusing. Explain briefly what these network terms relate to: Ethernet, 802.11, WiFi, and Bluetooth.
2. Save your acronyms as ***Exercise 2-5*** in your ***Chapter 2*** folder.

INSTANT MESSAGE

Acronyms are abbreviations for commonly used terms. There are so many IT acronyms that employees in this field often sound like they speak a different language.

21st-Century Business Skills

Comparing and Contrasting for Productivity

Exercise 2-6 THE BIG BROWSER SHOOTOUT



There are four major browsers and dozens of lesser-known options. Compare and contrast as many as you can while asking this question, "Which browser is the most efficient and productive?"

1. Meet with your team and brainstorm five to ten criteria (and more if you can think of some) that a browser must meet to be truly productive (for example, speed, ease of use, or time it takes to manage bookmarks or favorites).
2. Have each team member pick a different browser to test and to advocate for. (You may need to download and install several new browsers to complete this task.)
3. Have each member test their browser against the criteria the team has listed in step 1.
4. Share and compare each other's results in a shootout format, displaying the features of each and then ranking the browsers based on their performance in the shootout.

Exercise 2-7 THE BIG SEARCH TOOL SHOOTOUT



As with browsers, there are four major search tools in the United States and dozens of lesser-known options. There are many other search tools in countries all over the world. Compare and contrast as many as your team can test.

1. Meet with your team and brainstorm at least five criteria that a browser must meet to be truly productive. What should you be testing?
   - Speed, for sure.
   - Relevance, absolutely.
   - Ease of use, certainly.
   - Other?
   - Yet another?
2. Ask this question: "Which search tool is the most efficient and productive?"
3. Come up with a list of ten keyword search terms that your team can use in its head-to-head test.
4. Have each team member pick a different search tool to test and to advocate for.
5. Have each member test their search tool against the criteria listed in step 1 and using the search terms listed in step 3.
6. Share and compare each other's results in a search shootout format, displaying the features of each and then ranking the search engines based on their performance in the shootout.

Chapter 3

New Key Learning Skills

Lesson 3-1: Home Keys (fdsa jkl;)
Lesson 3-2: Review
Lesson 3-3: New Keys h and e
Lesson 3-4: New Keys i and r
Lesson 3-5: Review
Lesson 3-6: New Keys o and t
Lesson 3-7: New Keys n and g
Lesson 3-8: Left Shift and . (period)
Lesson 3-9: Review
Lesson 3-10: New Keys u and c
Lesson 3-11: New Keys w and Right Shift
Lesson 3-12: New Keys b and y
Lesson 3-13: Review
Lesson 3-14: New Keys m and x
Lesson 3-15: New Keys p and v
Lesson 3-16: New Keys q and , (comma)
Lesson 3-17: Review
Lesson 3-18: New Keys z and : (colon)
Lesson 3-19: New Keys CAPS LOCK and ? (question mark)
Lesson 3-20: New Keys TAB and BACKSPACE

INPUT TECHNOLOGIES FOR THE 21ST CENTURY

There was a time when the only way to input information into a computer was with the keyboard. Then along came the mouse, scanners, digital pens, speech recognition, multi-touch screens, multi-touch pads, and digital cameras. (See Figure 3-1.) And while keyboarding is still very important, you now have additional input tools at your fingertips that are fun, efficient, and easy to use.


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Dmitriy Shironosov/Shutterstock.com


corepics/Shutterstock.com

FIGURE 3-1 You will want to learn a variety of input technologies.

When it comes to learning the new input tools, and even some of the old ones, we've got you covered in this text. (See Table 3-1.)

Multi-touch screens and touch pad skills	Appendix A
Handwriting recognition or handtyping skills	Appendix A
Speech recognition or voice typing skills	Appendix B
Numeric keypad skills	Appendix C
Digital scanner skills	Chapter 8
Digital camera skills	Chapter 8
Drawing and sketching skills	Chapter 13

TABLE 3-1 Eight different input tools are covered in this book.

WHY USE A KEYBOARD?



© CJG - Technology Alamy

FIGURE 3-2
Keyboards show up on smart phones and on the Apple iPad.

Many of the latest input tools like multi-touch, speech recognition, and digital handwriting work perfectly with a new generation of mobile computers and laptops created for active lifestyles. You will likely use each of these new input technologies in school or on the job.

With all of these new input tools, you may well ask, "Why bother learning to key or type?" The answer is simple. Most text is still entered into computers with a keyboard. If you can key cleanly, accurately, and quickly, you will be at an advantage. You will be more competitive and efficient in school and in the business world. Plus, keyboards show up in what may, at first, seem the most unlikely places, such as on smart phones. Even Apple's super mobile iPod touch-screen computer has a keyboard built into the screen as displayed in Figure 3-2. So, learning to key well is still very worthwhile.

LESSON 3-1 Home Keys (fdsa jkl;)

IN THIS LESSON YOU WILL:

Objectives

1. Consider the arrangement of your work area and keying position.
2. Learn control of home keys (fdsa jkl;).
3. Learn control of the Space Bar and ENTER key.

Key Terms

ENTER
home keys
margin
Space Bar

WORK-AREA ARRANGEMENT



Courtesy Cengage Learning

FIGURE 3-3 Properly Arranged Work Area

Arrange your work area as shown in Figure 3-3. Place the:

- Keyboard directly in front of the chair, front edge of the keyboard even with the edge of the desk.
- Monitor for easy viewing.
- Book at the right of the keyboard.

KEYING POSITION

The way you sit when you use the keyboard is very important. You can key more accurately when you sit properly. You also will be less likely to feel tired or strained when you sit properly. When you use a keyboard, keep your:

- Fingers curved and upright over the home keys.
- Wrists low but not touching the keyboard.
- Forearms parallel to the slant of the keyboard.
- Body erect, sitting back in the chair.
- Feet on the floor for balance.

Proper keying position is shown in Figure 3-4.

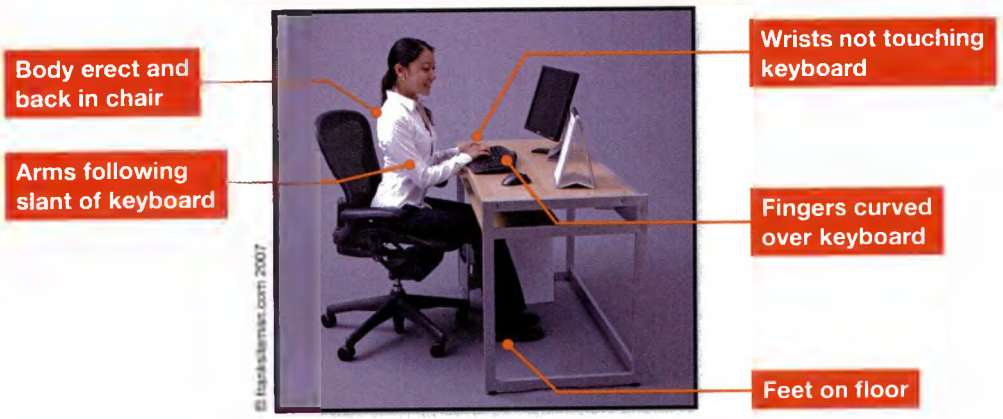


FIGURE 3-4 Sitting properly when using a keyboard is very important.

Activity 3-1 HOME-KEY POSITION

The keys on which you place your fingers to begin keying are called the **home keys**. The home keys are **a s d f** for the left hand and **j k l ;** for the right hand. (See Figure 3-5.)

1. Find the home keys on the keyboard chart shown below: **a s d f** for the left hand and **j k l ;** for the right hand.
2. Locate and place your fingers on the home keys on your keyboard. Keep your fingers well curved and upright (not slanting).
3. Remove your fingers from the keyboard. Place them in home-key position again. Curve and hold your fingers lightly on the keys.



FIGURE 3-5
Home Keys for Each Hand

Cengage Learning

KEYSTROKING AND SPACE BAR

When you key, tap each key lightly with the tip of the finger. Keep your fingers curved as shown in Figure 3-6. The **Space Bar** is used to place a space between words. Tap the Space Bar with the right thumb. Use a quick down-and-in motion (toward the palm). Avoid pauses before or after spacing.

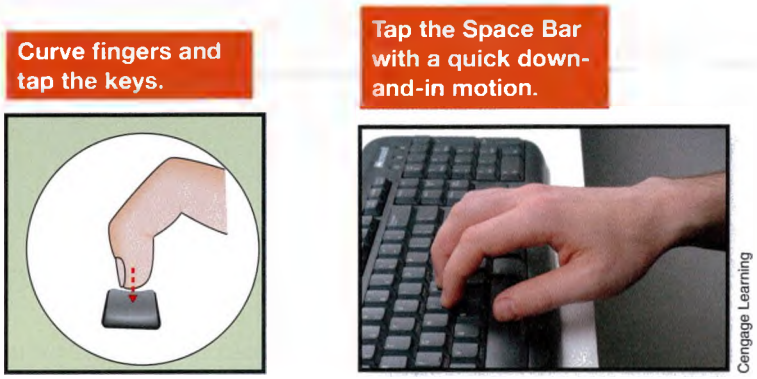


FIGURE 3-6
Keying and Spacing Technique

Activity 3-2 KEYSTROKING AND SPACE BAR

1. Place your fingers in home-key position.
2. Key the line below. Tap the **Space Bar** once at the point of each arrow.
3. Review proper position at the keyboard. Key the line again.

a s d f j k l ; aa jj ss kk dd ll ff ;;

ENTER KEY


Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-7
ENTER Key Reach

The ENTER key (shown in Figure 3-7) is used to return the insertion point to the left margin and to move it down one line. The **margin** is the blank space between the edge of the paper and the print. Tap the ENTER key once to add space between paragraphs. This moves the insertion point down one line.

Activity 3-3 USING THE ENTER KEY

1. Reach the little finger of the right hand to the ENTER key. Tap the key. Return the finger quickly to home-key position.
2. Practice tapping the ENTER key several times.

Activity 3-4 HOME KEYS AND SPACE BAR

Key each line once. Tap ENTER twice to separate two line groups. Do not key the line numbers. The keys you will be using are shown in white in Figure 3-8.



FIGURE 3-8
Home Keys and Space Bar

```
1 j jj f ff k kk d dd l ll s ss ; ;; a aa jkl; asdf
2 j jj f ff k kk d dd l ll s ss ; ;; a aa jkl; asdf
```

Tap the ENTER key twice.

```
3 a aa f ff j jj ; ;; l ll s ss d dd k kk f ff jkl;
4 a aa f ff j jj ; ;; l ll s ss d dd k kk f ff jkl;

5 fj fj dk dk sl sl a; a; jf jf kd kd ls ls ;a ;a j
6 fj fj dk dk sl sl a; a; jf jf kd kd ls ls ;a ;a j
```

Activity 3-5 ENTER KEY

Key each line once. Tap ENTER twice to separate two line groups.

```
1 aa kk dd jj
2 aa kk dd jj
3 ll ss ff ;; jj k
4 ll ss ff ;; jj k
5 fj fj dk dk sl sl a;a
6 fj fj dk dk sl sl a;a
7 kd ls ;l kj a; sl dk fj ;a
8 kd ls ;l kj a; sl dk fj ;a
```

Technique Tip

Reach out with little finger and tap the ENTER key quickly. Return your finger to home key.

MicroType

Use MicroType *Lesson 1 for additional practice.*

checkpoint

Does your J finger remain in place as you tap the ENTER key? If not, make an effort to improve your reach technique.

LESSON 3-2 Review

IN THIS LESSON YOU WILL:

Objectives

1. Review control of home keys **(fdsa jkl;)**.
2. Review control of Space Bar and ENTER.

Activity 3-6 HOME KEYS AND SPACE BAR

1. Find the home keys on the chart: **a s d f** for the left hand and **j k l ;** for the right hand.
2. Locate and place your fingers on the home keys on your keyboard with your fingers well curved and upright (not slanting).
3. Remove your fingers from the keyboard; then place them in home-key position again, curving and holding them lightly on the keys.
4. Key each line once single-spaced; double-space between 2-line groups. Do not key the line numbers. Notice you will again be using the home keys and Space Bar highlighted in white in Figure 3-11.
5. When you key, remember to tap each key lightly with the tip of the finger using the keying technique illustrated in Figure 3-9. Tap the Space Bar with the right thumb. Use a quick down-and-in motion (toward the palm) as shown in Figure 3-10. Avoid pauses before or after spacing.



FIGURE 3-9
Keying Technique



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-10
Spacing Technique



FIGURE 3-11 Home Keys and Space Bar

```
1 a s d f aa ss dd ff j k l ; jj kk ll ;; af j; klkl
2 a s d f aa ss dd ff j k l ; jj kk ll ;; af j; klkl
```

Tap the ENTER key twice.

```
3 ja ja kf kf sd sd ;l ;l ak ak sj sj d; d; lf lf ;;
4 ja ja kf kf sd sd ;l ;l ak ak sj sj d; d; lf lf ;;

5 fjf kdk sls ;a; jfj dkd lsl a;a flf kak ;d; lsl ;;
6 fjf kdk sls ;a; jfj dkd lsl a;a flf kak ;d; lsl ;;

7 jj ll aa dd kk ;; ss ff jj ll aa dd kk ;; ss ff ;;
8 jj ll aa dd kk ;; ss ff jj ll aa dd kk ;; ss ff ;;
```

Activity 3-7 ENTER KEY



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-12
ENTER Right little finger

Use the correct reach for the ENTER key as shown in Figure 3-12. Reach the little finger of the right hand to the ENTER key. Tap the key. Return the finger quickly to home-key position.

Key each line once. Tap ENTER twice to separate two line groups.

```
1 a aa j jj;
2 a aa j jj;

3 s ss k kk f ff;
4 s ss k kk f ff;

5 l ll d dd j jj a aa;
6 l ll d dd j jj a aa;

7 k kk d dd s ss l ll f ff;
8 k kk d dd s ss l ll f ff;

9 d dd a aa f ff s ss j jj k kk;
10 d dd a aa f ff s ss j jj k kk;
```

Activity 3-8 KEY WORDS

Software Tip

Click the **Show/Hide** button in the Paragraph group on the Home ribbon to display formatting marks for spaces and paragraphs.

Key each line once. Tap ENTER twice to separate two line groups. Do not key the red lines between groups of words.

```
1 as; as;|ask ask|ad; ad;|add add|all all|fall fall;
2 as; as;|ask ask|ad; ad;|add add|all all|fall fall;

3 a sad lass; a sad lass;|all fall ads all fall ads;
4 a sad lass; a sad lass;|all fall ads all fall ads;

5 add a; add a;|ask a lad ask a lad|a salad a salad;
6 add a; add a;|ask a lad ask a lad|a salad a salad;
```

END-OF-CLASS ROUTINE

Each day before you leave the classroom, do the following:

- Exit the software.
- Remove your disk from the disk drive.
- Turn off equipment if directed to do so.
- Clean up your desk area and push in your chair.

MicroType

Use MicroType *Lesson 2 for additional practice.*

LESSON 3-3 New Keys h and e

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for **h** and **e**.
2. Combine **h** and e smoothly with home keys.

Activity 3-9 WARMUP

Key each line twice. Tap ENTER twice to separate two line groups.

All keystrokes learned

```
1 ff jj dd kk ss ll aa ;; ff jj dd kk ss ll aa ;; jj
2 add; fad; lads; asks; dad; lass; fall; salad; sad;
3 a fall ad; ask dad; a salad; add a lad; a sad lass
```

Tap ENTER twice between lesson parts.

PLAN FOR LEARNING NEW KEYS

All of the remaining keys that you learn will require your fingers to reach from the home keys to tap other keys. Follow the Standard Plan given below to learn the reach for each new key.

Standard Plan for Learning New Keys

1. Find the new key on the keyboard chart provided.
2. Look at your keyboard and find the new key on it.
3. Study the picture at the left of the practice lines for the new key. Note which finger is used for the key.
4. Curve your fingers; place them in home-key position (over **fdsa jkl;**).
5. Watch your finger as you reach to the new key and back to home position a few times. Keep your finger curved.
6. Key the set of drill lines according to the directions provided, keeping your eyes on the copy as you key.

Use the Standard Plan for Learning New Keys for each key that you learn. Relate each step of the plan to Figures 3-13, 3-14, and 3-15.

Activity 3-10 KEYS h AND e



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-13
h Right index finger



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-14
e Left middle finger

Key each line twice. Do not key the line numbers, the vertical lines separating word groups, or the labels.



FIGURE 3-15 New keys ***h*** and ***e***

Learn h

```
1 j h j h|ha ha|had had|ash ash|dash dash|half half;
2 jh jh|has has|had had|ash ash|half half|hash hash;
3 hall hall|shall shall|half half|dash dash|had had;
```

Learn e

```
4 d e d e|elf elf|sell sell|desks desks|flake flake;
5 ed ed|sales sales|deeds deeds|safe safe|jell jell;
6 a seed; a lead; a jade; a desk; seek a; see a lake
```

Combine h and e

```
7 he he|shed shed|shelf shelf|shell shell|held held;
8 a flash; a shed; she held; he has jade; has a desk
9 sea shell; he has ash; she had jade; he had a sale
```

Spacing Tip

Space once after; used as punctuation.

Activity 3-11 TECHNIQUE REVIEW

TEAMWORK

Techniques are very important. In the early stages of learning to key, it is helpful to have others observe your techniques and tell you how you are doing. Sometimes your teacher will provide the feedback; other times you will receive feedback from one of your classmates.

1. Open ***Activity 3-11*** from your data files. Print the document. Close the file.
2. Work with a classmate. Ask your classmate to key lines 7–9 (above) as you watch for proper techniques. Mark notes on your checksheet. Share your comments with your classmate.
3. Ask your classmate to rate your techniques as you key lines 7–9. Discuss your ratings with your classmate.

Activity 3-12 KEY WORDS

Key each line twice.



FIGURE 3-16
Keys ***h*** and ***e***

1 ask ask|seek seek|half half|leaf leaf|halls halls;
2 ask dad; he has jell; she has jade; he sells leeks
3 he led; she has; a jak ad; a jade eel; a sled fell
4 she asked a lass; she led all fall; she has a lead
5 he led; she had; she fell; a jade ad; a desk shelf

MicroType

Use MicroType *Lesson 3 for additional practice.*

LESSON 3-4 New Keys i and r

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for **i** and **r**.
2. Combine **i** and **r** smoothly with home keys.

Activity 3-13 WARMUP

Key each line twice.

Home keys

1 a f d s k j ; l ask fad all dad sad fall lass jj ;

h/e

2 j h ha has had ash hash d e led fed fled sled fell

All keys learned

3 she had a sale; ask a lad; she sells jade; a lake;

INSTANT MESSAGE

Tap and release each key quickly.

Activity 3-14 KEYS i AND r

Follow the plan for learning new keys shown on page 73. Use Figures 3-17, 3-18, and 3-19 as references.



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FIGURE 3-17
i Right middle finger



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-18
r Left index finger



FIGURE 3-19 New keys *i* and *r*

1. Key each line twice.

2. If time permits, key lines 7–9 again.

Learn i

```
1 k i|ki ki|is is|if if|ill ill|aid aid|kid kid|hail
2 ki ki|like like|jail jail|file file|said said|dial
3 if a kid; he did; a lie; if he; his file; a kid is
```

Learn r

```
4 f r|fr fr|far far|her her|are are|ark ark|jar jars
5 fr fr|jar jar|red red|her her|lark lark|dark dark;
6 a jar; a rake; read a; red jar; hear her; are free
```

Combine i and r

```
7 ride ride|fire fire|risk risk|hire hire|hair hairs
8 her hair; hire her; a fire; is she fair; is a risk
9 a ride; if her; is far; red jar; his are; her aide
```

Tap ENTER twice to separate three line groups.

Activity 3-15 KEY MASTERY

Technique Tip

- Keep your wrists low but not resting on the desk.
- Keep your hands and arms steady.

Key each line twice.

Reach review

```
1 hj ed ik rf hj de ik fr hj ed ik rf jh de ki fr hj
2 he he|if if|all all|fir fir|jar jar|rid rid|as ask
```

h/e

```
3 she she|elf elf|her her|hah hah|eel eel|shed shelf
4 he has; had jak; her jar; had a shed; she has fled
```

i/r

```
5 fir fir|rid rid|sir sir|kid kid|ire ire|fire fired
6 a fir; is rid; is red; his ire; her kid; has a fir
```

All keys learned

```
7 jar jar|deal deal|fire fire|shelf shelf|lake lakes
8 he is; he did; ask her; red jar; she fell; he fled
```

MicroType

Use MicroType *Lesson 4 for additional practice.*

LESSON 3-5 Review

IN THIS LESSON YOU WILL:

Objectives

1. Improve reachstroke control and keying speed.
2. Improve technique on Space Bar and ENTER.

Activity 3-16 WARMUP

Key each line twice.

Home keys 1 aa jj ff kk ss ll dd ;; aj fk sl d; dd ff jj ll kk

h/e 2 he fee she ash deed deaf shed held head half easel

i/r 3 fire rile risk hire rail dial rake like raid rider

Activity 3-17 SPACE BAR TECHNIQUE

Key each line twice, using Figure 3-21 as a reference.



FIGURE 3-20 Home Row Keys and Space Bar



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-21 Use a down-and-in motion for spacing.

Short, easy words

1 is as if he hi has ask had are her jar kid lad sad

2 jail half lake sail side rail leaf desk fade flair

3 his like reel fails laser seeks lease hired safari

Short-word phrases

4 he is|if she|a jar|he did|as he is|has had|she did

5 red jar|a lake|red hair|her desk|as a lark|as dark

6 he said|she has had a|here he is|all fall|are free

Technique Tip

Quickly space after each word and immediately begin the next word.

checkpoint

Are you sitting up straight in your chair with your feet on the floor as you key? If not, make an effort to improve your keying position.

Activity 3-18 ENTER TECHNIQUE

Key each line twice using Figure 3-22 as a reference.



FIGURE 3-22
Home Row Keys and Space Bar

1 if he is;
2 as if she is;
3 he had a fir desk;
4 she has a red jell jar;
5 he has had a lead all fall;
6 she asked if he reads fall ads;
7 she said she reads all ads she sees;
8 his dad has had a sales lead as he said;

Technique Tip

Keep up your pace to the end of the line. Tap ENTER quickly and immediately begin the next line.

Activity 3-19 KEY MASTERY

Key each line twice.

h/e

1 he she heel shelf held heed shed heal hire herself
2 he had a sled; she hired a; he has had; she held a

i/r

3 air sir fire liar hair iris ride fair dried desire
4 hire her; she is a risk; his airfare; he fired her

All keys learned

5 he is; he has a red sled; like jade; if he is free
6 is a; he has a jar; a lake; she is safe; fried eel
7 he is free; here she is; she has a jade; like her;
8 he had a; red jars; fire risk; fall ads; sled ride

MicroType

Use MicroType *Lesson 5 for additional practice.*

LESSON 3-6 New Keys o and t

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for **o** and **t**.
2. Combine **o** and **t** smoothly with all other learned keys.

Activity 3-20 WARMUP



FIGURE 3-23
Keep fingers curved and upright.

Key each line twice, keeping your fingers curved and upright as shown in Figure 3-23.

Home row

```
1 jskj; dlaf; sad fall; had a hall; a fall ad; ask a
```

3rd row

```
2 a fire; if her aid; he sees; he irks her; fish jar
```

All keys learned

```
3 he had half a jar; as she fell; he sells fir desks
```

Activity 3-21 KEYS o AND t

Follow the plan for learning new keys shown on page 73. Using Figures 3-24, 3-25, and 3-26 for reference, key each line twice.



FIGURE 3-24
New keys ***o*** and ***t***

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FIGURE 3-25
o Right ring finger

Cengage Learning/Bill Smith Group/Sam Kolich



FIGURE 3-26
t Left index finger

Learn o

```
1 l o|l o|lo lo|do do|of of|so so|old old|fold fold;
2 fork fork|soak soak|hold hold|sold sold|joke joke;
3 a doe; old fork; solid oak door; old foe; oak odor
```

Learn t

```
4 f t|f t|it it|fat fat|the the|tied tied|lift lift;
5 ft ft|fit fit|sit sit|hit hit|kite kite|talk talk;
6 lift it; tie the; hit it; take their test; is late
```

Combine o and t

```
7 to to|too too|took took|hot hot|lot lot|tort tort;
8 hook hook|told told|fort fort|sort sort|jolt jolt;
9 told a joke; jot or dot; took a jolt; took a look;
```

Activity 3-22 KEY MASTERY

Key each line twice.

h/e

1 the the|lead lead|held held|hear hear|heart heart;
2 he heard|ask their|here the|has fled|hide the jars

i/t

3 its its|hit hit|tie tie|sit sit|kite kite|fit fit;
4 a tire|a fire|tied to it|it fits|it sits|it is fit

o/r

5 or or|for for|fort fort|oar oar|soar soar|rot rot;
6 three doors|a red rose|for a fort|he rode|for free

Space Bar

7 of he or it is to if do el odd off too are she the
8 off of it|does the|if she|to do the|for the|she is

All keys learned

9 if she is; ask a lad; to the lake; off the old jet
10 he or she; for a fit; if she did; the jar; a salad

Technique Tip

- Keep your fingers curved and upright.
- Use a down-and-in spacing motion.
- Keep your eyes on the copy as you key.

MicroType

Use MicroType *Lesson 6 for additional practice.*

LESSON 3-7 New Keys n and g

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for **n** and **g**.
2. Combine **n** and **g** smoothly with all other learned keys.

Activity 3-23 WARMUP

Key each line twice.

h/e

1 he has a hoe; he has her heart; her health; he had

o/t

2 took the toad; it is hot; a lot; her toes; dot it;

i/r

3 a tire; it is fair; their jar; their skis; ride it

Activity 3-24 KEYS n AND g

Follow the plan for learning new keys shown on page 73. Using Figures 3-27, 3-28, and 3-29 as guides, learn to key the letters n and g.



FIGURE 3-27 New keys ***n*** and ***g***



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-28
n Right index finger



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-29
g Left index finger

Key each line twice. If time permits, key lines 7–9 again.

Learn n

```
1 j n|jn jn|an an|and and|end end|ant ant|land lands
2 jn jn|and and|den den|not not|end end|and and|sand
3 not a train; hand it in; near the end; nine or ten
```

Learn g

```
4 f g|fg fg|go go|jog jog|got got|frog frog|get gets
5 fg fg|get get|egg egg|dig dig|logs logs|golf golf;
6 good eggs; eight dogs; a frog; a goat; golf gadget
```

Combine n and g

```
7 gone gone|nag nag|ago ago|gnat gnat|dragon dragons
8 green grass; nine ants; need glasses; ten gallons;
9 go golfing; not again; long ago; ten frogs; a gang
```

Activity 3-25 ENTER KEY TECHNIQUE

Key each line twice.

```
1 here she is;
2 he is at the inn;
3 she goes to ski there;
4 he is also to sign the log;
5 he left the egg on the old desk;
6 he took the old dog to the ski lodge;
```

checkpoint

Does your J finger remain in place as you tap the ENTER key? If not, make an effort to improve your reach technique.

Activity 3-26 KEY MASTERY

Key each line twice.

Technique Tip

- Keep your eyes on the copy as you key.

n/g

1 gone gone|sing sing|long long|song song|gang gangs
2 sing a song; log on; sign it; and golf; long songs

Space Bar

3 is is|go go|of of|or or|he he|it it|the the|and an
4 if it is a jar|he has a dog|like to go|to do signs

All keys learned

5 an old oak desk; a jade ring; at her side; of the;
6 he goes there at night; she has left for the lake;
7 he took her to the lake; take the hooks off; he is
8 the old jet; sign the list on the; go to the right

MicroType

Use MicroType *Lesson 7 for additional practice.*

LESSON 3-8 New Keys Left Shift and . (period)

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for **Left Shift** and . (**period**).
2. Combine **Left Shift** and . (**period**) smoothly with other learned keys.

Activity 3-27 WARMUP

Key each line twice.

Reach review

1 rf ol gf ki hj tf nj ed fr lo fg ik jh ft jn a; de

Space Bar

2 as if go at it is in he or to of so do on jet lake

All keys learned

3 a jar; if an; or do; to go; an oak door; she told;

Activity 3-28 NEW KEYS LEFT SHIFT AND . (PERIOD)



FIGURE 3-31
Left Shift Left little finger



FIGURE 3-32
. (period) Right ring finger

Using Figures 3-30, 3-31, and 3-32 as guides, key each line twice. If time permits, rekey lines 7–9.



FIGURE 3-30 New keys ***Left Shift*** and ***. (period)***

Learn Left Shift

1 a J|Ja Ja|Ka Ka|La La|Hal Hal|Kal Kal|Jan Jan|Jane
2 Jan did it; Kent took it; Ida said; Jane has a dog
3 I see that Kate is to aid Hans at the Oakdale sale

Learn . (period)

4 l .|l. l.|fl. fl.|ed. ed.|ft. ft.|rd. rd.|hr. hrs.
5 l. l.|fl. fl.|hr. hr.|e.g. e.g.|i.e. i.e.|in. ins.
6 a. s. d. f. j. k. l. ;. h. e. i. r. o. t. n. g. o.

Combine Left Shift and . (period)

7 I do. Ian is. Olga did. Jan does. Ken is gone.
8 Hal did it. I shall do it. Kate left on a train.
9 Jan sang a song. Linda read it. Ken told a joke.

Technique Tip

To use the Left Shift key:
1. Hold down the Left Shift key with the little finger on the left hand.
2. Tap the letter with the right hand.
3. Return finger(s) to home keys.

Activity 3-29 ENTER KEY TECHNIQUE

Key each line twice.

1 I like the dog.
2 Janet is at the inn.
3 Jake is to take the test.
4 Hank and Jo left for the lake.
5 Hans took the girls to a ski lodge.
6 Jeff took the old desk to the ski lodge.
7 Jason and Jeff like to listen to those songs.

Technique Tip

Quickly tap ENTER at the end of each line and immediately begin the next line.

Activity 3-30 KEY MASTERY

Key each line twice.

Spacing Tip

- Do not space after . within abbreviations.
- Space once after . following abbreviations and initials.
- Space twice after . at the end of a sentence except at the end of a line. There, tap ENTER without spacing.

Abbreviations/initials

1 He said ft. for feet; rd. for road; fl. for floor.
2 Lt. Hahn let L. K. take the old gong to Lake Neil.

Short words

3 a an or he to if do it of so is go for got old led
4 go the off aid dot end jar she fit oak and had rod

Short phrases

5 if so|it is|to do|if it|do so|to go|he is|to do it
6 to the|and do|is the|got it|if the|for the|ask for

All letters learned

7 Ned asked her to send the log to an old ski lodge.
8 J. L. lost one of the sleds he took off the train.

MicroType

Use MicroType *Lesson 8 for additional practice.*

LESSON 3-9 Review

IN THIS LESSON YOU WILL:

Objectives

1. Improve use of **Space Bar**, **Left Shift**, and ENTER.
2. Improve keying speed on words, phrases, and sentences.

Activity 3-31 WARMUP

Key each line twice.

Reach review

1 ki fr lo de jn fg jh ft l. l.lo i.o. r.e. n.g. h.t

Space Bar

2 a as ask|h he hen|n no not|t to too took|d do dot;

Left Shift

3 Kent left. Lana is not here. Jake sang the song.

Activity 3-32 KEY MASTERY

Key each line twice.

n/g

1 jn jn|fg fg|slang slang|lingo lingo|jargon jargon;
2 Nate sang eight or nine songs; Lana sang one song.

o/t

3 lo lo|ft ft|to to|foot foot|lots lots|tooth tooth;
4 John has lost the list he took to that food store.

i/r

5 ki ki|fr fr|ire ire|risk risk|ring ring|tire tire;
6 Ida is taking a giant risk riding their old horse.

Left Shift/.

7 Jason K. Hanselt; Katie O. Higgins; Kirk N. Jones;
8 J. L. Johnson is going to Illinois to see her son.

checkpoint

Did you space once after periods following initials?

Activity 3-33 ENTER KEY TECHNIQUE

Key each line twice.

1 Jon has gone to ski;
2 he took a train at eight.
3 Karen asked for the disk;
4 she is to take it to the lake.
5 Joe said he left the file that
6 has the data he needs at the lodge.
7 Janine said she felt ill as the ski
8 lift left to take the girls to the hill.

Technique Tip

Quickly tap ENTER at the end of each line and immediately begin the next line.

Activity 3-34 INCREASE SPEED

Key each line twice.

Key words (Think, say, and key the words.)

1 is and the if she of air did dog risk forks eight
2 rifle signs their then title ant aisle dials dish
3 shall signal tight shelf rigid right soaks island

Key phrases (Think, say, and key the phrases.)

4 is to|or do|to it|if he is|to do|it is|of an|if he
5 he did|of the|to all|is for|is a tie|to aid|if she
6 he or she|to rig it|if she did|is to sit|is to aid

Key sentences (Tap keys at a brisk, steady pace.)

7 Jake is to go to the lake to get her old red skis.
8 Hal asked for a list of all the old gold she sold.
9 Helen said she left the old disk list on his desk.

MicroType

Use MicroType *Lesson 9 for additional practice.*

LESSON 3-10 New Keys u and c

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for **u** and **c**.
2. Combine **u** and **c** smoothly with all other learned keys.

Activity 3-35 WARMUP

Key each line twice.

Reach review

1 fg jn lo fr ki de l. ft jh gf ij tf nj ed ol rf .l

Space Bar

2 if so to of no go is in it as see are art jet lake

Left Shift

3 Ken has a horse. Jan has a dog. He is going too.

Activity 3-36 KEYS u AND c



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-34
u Right index finger



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-35
c Left middle finger

Using Figures 3-33, 3-34, and 3-35 as a guide, key each line twice. If time permits, rekey lines 7–9.



FIGURE 3-33 New keys *u* and *c*

Learn u

```
1 j u|ju ju|just just|rust rust|dust dust|used used;
2 ju ju|jug jug|jut jut|turn turn|hug hug|sure sure;
3 turn it; due us; the fur; use it; fur rug; is just
```

Learn c

```
4 d c|dc dc|can can|tic tic|catch catch|clock clock;
5 dc dc|ice ice|cat cat|car car|care care|dock docks
6 a can; the ice; she can; the dock; the code; a car
```

Combine u and c

```
7 cut cute duck clue cuff cure luck truck curd such;
8 such luck; a cure; to cut; the cure; for the truck
9 Janet and Jack told us to take four cans of juice.
```

Activity 3-37 KEY MASTERY

Key each line twice.

3rd/1st rows

```
1 no to in nut run cue tot cot nun urn ten turn cute
2 Nan is cute; he is curt; turn a cog; he can use it
```

Left Shift and . (period)

```
3 Jett had a lead. Kate ate the cake. Lane let us.
4 I said to use Kan. for Kansas and Ore. for Oregon.
```

Short words

```
5 if the and cue for end fit rug oak she fur due got
6 an due cut such fuss rich turn dock curl such hair
```

Short phrases

```
7 a risk|is fun|to rush|for us|a fit|the dog|such as
8 just in|code it|turn it|cure it|as such|is in luck
```

Technique Tip

- Reach up without moving your hands away from your body.
- Reach down without moving your hands toward your body.

MicroType

Use MicroType *Lesson 10 for additional practice.*

LESSON 3-11 New Keys w and Right Shift

IN THIS LESSON YOU WILL

Objectives

1. Learn reach technique for **w** and **Right Shift**.
2. Combine **w** and **Right Shift** with all other learned keys.

Activity 3-38 WARMUP

Key each line twice.

Reach review
1 fr fg de ju ft jn ki lo dc ki rf l. ed jh ol gf tf

u/c
2 luck used cure such cute cause lunch accuse actual

All letters learned
3 Jefferson just took the huge lead in the election.

Activity 3-39 KEYS w AND RIGHT SHIFT

Key each line twice. If time permits, rekey lines 7–9.



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-37
w Left ring finger



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-38
Right Shift Right little finger



FIGURE 3-36 New keys ***w*** and ***Right Shift***

Learn w

1 s w|sw sw|two two|wet wet|low low|how how|was was;
2 sw sw|were were|what what|snow snow|worker worker;
3 to show; to watch; to win; when we; wash and wear;

Learn Right Shift

4 ;A ;A;|Al Al;|Dan Dan;|Ann Ann;|Ron Ron;|Gene Gene
5 Chicago; San Diego; Santa Fe; Atlanta; Eau Claire;
6 Richard left for San Diego; Fran left for Chicago.

Combine w and Right Shift

7 Charla and Wanda will watch the show with Willard.
8 We will want to show the award to Walt and Andrew.
9 Wes wished he was in Washington watching the show.

Technique Tip

Depress the SHIFT key, tap the key, and release the SHIFT key in a quick 1-2-3 count.

Activity 3-40 KEY MASTERY

Key each line twice.

w and Right Shift

1 Dr. Wade works here; Dr. Weeks left two weeks ago.
2 Will Whitt get a watch when his is in town on Wed.

n/g

3 sing a song|long gone|wrong sign|and got|a gallon;
4 Glenda signed the wrong check. Jen is gone again.

Short words

5 is and the she sir for rid cut got rug oak end dog
6 wet red oil ear inn gas ink car on ace look no sea

Short phrases

7 he did|a jet ride|she is|if she can go|take a look
8 as soon as|to go to|if it is|when he is|has done a

All keys learned

9 Jason and Chuck are going. Laurie thinks she can.
10 Frank worked eight hours; Linda worked four hours.

Spacing Tip

Space quickly after keying each word.

MicroType

Use MicroType *Lesson 11 for additional practice.*

Activity 3-41 SPACING WITH PUNCTUATION

Spacing Tip

Do not space after an internal period in an abbreviation. Space once after each period following initials.

Key each line twice.

1 Dr. Hoag said to use wt. for weight; in. for inch.
2 J. R. Chen has used ed. for editor; Rt. for Route.
3 Sue said Jed Ford got an Ed.D. degree last winter.
4 Use i.e. for that is; cs. for case; ck. for check.

LESSON 3-12 New Keys b and y

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for **b** and **y**.
2. Combine **b** and **y** with all other learned keys.

Key Terms

gross words a minute (gwam)
standard word

Activity 3-42 WARMUP

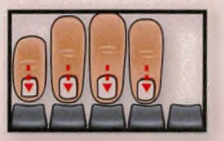


FIGURE 3-39
Keep fingers curved and upright.

Key each line twice, taking note of the technique illustrated in Figure 3-39.

Reach review

1 ft. de lo ju sw ki fr dc jn jh l. fg rt ws ol ed.

c/n

2 nice coin cent cane niece dance ounce check glance

All letters learned

3 Jack Elgin had two hits in the first four innings.

Activity 3-43 KEYS b AND y

Using Figures 3-40, 3-41, and 3-42 as a reference, key each line twice. If time permits, rekey lines 7–9.



FIGURE 3-40
New keys ***b*** and ***y***

Cengage Learning/Bill Smith Group/Sam Kolich



FIGURE 3-41
b Left index finger

Cengage Learning/Bill Smith Group/Sam Kolich



FIGURE 3-42
y Right index finger

Learn b

1 f b f b|fb bf|fib fib|big big|book book|bank bank;
2 fb fb fb|bugs bugs|oboe oboe|label label|bird bird
3 Bob bid; Rob bunted; black rubber ball; brief job;

Learn y

4 j y|jy jy|jay jay|yes yes|eye eye|day day|rye rye;
5 yiy yiy|eye eye|only only|yellow yellow|your yours
6 why did you; yellow cycle; only yesterday; he says

Combine b and y

7 buy buy|boy boy|busy busy|buddy buddy|byway byway;
8 by the bay; you buy a; big burly boy; a yellow bus
9 Bobby went by way of bus to buy the big blue belt.

Activity 3-44 SPACE BAR TECHNIQUE

Technique Tip

Space with a down-and-in motion immediately after each word.

Key each line once.

1 Jason will be able to take the bus to the concert.
2 Gary is to sign for the auto we set aside for her.
3 Rey is in town for just one week to look for work.
4 Ted is to work for us for a week at the lake dock.
5 June said he was in the auto when it hit the tree.
6 Dan has an old car she wants to sell at this sale.

Activity 3-45 ENTER KEY TECHNIQUE

Key each line once. At the end of each line, quickly tap the enter key and start the next line.

1 Gary will hit first.
2 Jan will be the second hitter.
3 Nick will be second and bat after Jason.
4 Roberto will be the center fielder and hit eighth.

1' | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

MicroType

Use MicroType *Lesson 12 for additional practice.*

FIND WORDS KEYED SCORE

INSTANT MESSAGE

You will learn about keying numbers and symbols in Appendix C.

A **standard word** in keyboarding is five characters. These five characters can be letters, numbers, symbols, or spaces. Each group of five characters is shown by the number scale under lines you key. (See scale under line 4 in Activity 3-45 above.) One measure used to describe keying skill is the number of words you key in a certain amount of time, such as a minute. The number of standard words keyed in 1' is called **gross words a minute** *(gwam)*.

1. Key line 4 of Activity 3-45 again as your teacher times you for 1'. Then follow the steps below to find 1' *gwam* for the timing.
   - Note on the scale the figure beneath the last word you keyed. That is your 1' *gwam* if you key the line partially or only once.
   - If you complete the line once and start over, add 10 to the figure you determined in Step 1. The result is your 1' *gwam*.
2. Key line 4 of Activity 3-45 again as your teacher times you for 30". Then follow the steps below to find 30" *gwam*.
   - Find 1' *gwam* (total words keyed).
   - Multiply 1' *gwam* by 2. The resulting figure is your 30" *gwam*.

LESSON 3-13 Review

IN THIS LESSON YOU WILL:

Objectives

1. Improve spacing, shifting, and entering.
2. Increase keying control and speed.

Activity 3-46 WARMUP

Key each line twice.

Reach review

1 ton only beat teen week rich used nice count B. J.

b/y

2 buy yes boy year obey eyes been yield debate Bobby

All letters learned

3 Jason knew the gift you held was for Dr. Jacobson.

Activity 3-47 SPACE BAR AND SHIFT KEYS

Key each line twice.

Space Bar (Space immediately after each word.)

1 in by we so do the and run yet ink low jet fun can
2 in the|when he|if she will|run to|yes you|can be a
3 Lance take a look at her car to see what is wrong.
4 Janet lost both of the keys to the car in the lot.

shift keys (Hold down shift key; tap key; quickly return finger(s) to home keys.)

5 Dr. Alou; Jose K. Casey; Sue A. Finch; Jon B. Bins
6 Della and I went to France in June to see her dad.
7 Roger and Carlos went to Salt Lake City on Friday.
8 The San Francisco Giants were in town on Thursday.

checkpoint

Do you reach up to keys without moving your hands away from your body?

Activity 3-48 CHECK SPEED

Key each line once double-spaced. Key a 20-second timed writing on each line. Your rate of gross words a minute (gwam) is shown word for word below the lines.

1 I will see her.
2 Janet has a new job.
3 Jack will go to the lake.
4 Karl is to go skiing with her.
5 Kara has two old oak doors to sell.
6 Faye and I took the test before we left.
7 Jessie said she will be in school on Tuesday.
8 Jay will go to the city to work on the road signs.

gwam 20" | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |

Activity 3-49 SPEED BUILDING

Key each line once.

1 Judy had gone for that big ice show at Lake Tahoe.
2 Jack said that all of you will find the right job.
3 Cindy has just left for work at the big ski lodge.
4 Rudy can take a good job at the lake if he wishes.
5 Rob saw the bird on the lake by the big boat dock.
6 Ted knew the surf was too rough for kids to enjoy.

MicroType

Use MicroType *Lesson 13 for additional practice.*

LESSON 3-14 New Keys m and x

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for **m** and **x**.
2. Combine **m** and **x** with all other learned keys.

Activity 3-50 WARMUP

Key each line twice.

Reach review 1 fg jy lo fr jn de sw ft ki jh fb dc ju by us if ow

b/y 2 by bay buy big yes boy buy bit try bury ruby byway

All letters learned 3 Beth can win the gold if she will just key faster.

Activity 3-51 KEYS m AND x

Key each line twice, using Figures 3-43, 3-44, and 3-45 as guides. If time permits, rekey lines 7–9.



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-44
m Right index finger



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-45
x Left ring finger



FIGURE 3-43
New keys ***m*** and ***x***

Learn m

```
1 j m|jm jm|jams jams|make make|mail mail|most most;
2 jm jm|me me|may may|moon moon|grim grim|mean meant
3 to them; meet me; make a mark; mail it; mean to me
```

Learn x

```
4 s x|sx sx|six six|fix fix|exit exit|extend extend;
5 sx sx|six six|tax tax|hex hex|fix fix|exact exact;
6 to excel; to exile; an exit; by six; an excise tax
```

Combine m and x

```
7 mix fox six jam men box hoax coax maxim axle taxi;
8 to fix; mix it; six men; make an exit; make a box;
9 Maxine Cox took the exit exams in Texas on Monday.
```

Activity 3-52 KEY MASTERY

Technique Tip

- Reach up without moving your hands away from your body.
- Reach down without moving your hands toward your body.

MicroType

Use MicroType *Lesson 14 for additional practice.*

Key each line twice.

3d/1st rows

```
1 men box but now cut gem rib ton yet not meet mired
2 cub oxen torn went time were note court worn owned
```

Short words

```
3 and own she box fix city duck held hair name their
4 art gas face honk milk draw junk aware extra start
```

Short phrases

```
5 you want|if she is|one of the|that is|they are not
6 make the call|for all the|and is|able to|they may;
```

All keys learned

```
7 Jacki is now at the gym; Lexi is due there by six.
8 Stan saw that he could fix my old bike for Glenda.
```

Activity 3-53 SPACING WITH PUNCTUATION

Spacing Tip

Do not space after an internal period in an abbreviation such as Ed.D.

Key each line twice.

1 He has an Ed.D. in music; I have an Ed.D. in math.
2 She may send a box c.o.d. to Ms. Cox in St. Louis.
3 Maxine will take a boat to St. Thomas in December.
4 Maria used Wed. for Wednesday and Mon. for Monday.

LESSON 3-15 New Keys p and v

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for **p** and **v**.
2. Combine **p** and **v** with all other learned keys.

Activity 3-54 WARMUP

Key each line twice.

One-hand words
1 gate link face moon extra hook base join beef milk

Phrases
2 if you will|take a look|when they|join us|to see a

All letters learned
3 Jo Buck won a gold medal for her sixth show entry.

Activity 3-55 KEYS p AND v

Using Figures 3-46, 3-47, and 3-48 as guides, key each line twice. If time permits, rekey lines 7–9.



FIGURE 3-46
New keys ***p*** and ***v***



Cengage Learning/Sue Smith Group/Sam Kolich

FIGURE 3-47
p Right little finger

Learn p

1 ; p ;p|pay pay|put put|apt apt|kept kept|pack pack
2 ;p ;p|pain pain|paint paint|paper paper|soap soap;
3 a plan; a party cap; pick a place; a pack of paper



FIGURE 3-48
v Left index finger

Learn v

4 f v f v|via via|live live|have have|vote vote|save
5 vf vf|van van|visit visit|liver liver|voice voice;
6 five vans; have a visit; very valid; vim and vigor

Combine p and v

7 pave hive open save plan jive soap very pain votes
8 apt to vote; pick a vase; pack the van; five pans;
9 Pam has a plan to have the van pick us up at five.

Activity 3-56 KEY MASTERY

Key each line twice.

Reach review

1 jn fr ki ft lo dc jh fg ju fb fv ;p sx jm de jy sw
2 just dear sweat jump fever decade injury swat hush

Technique Tip

- Reach up without moving your hands away from your body.
- Reach down without moving your hands toward your body.

3d/1st rows

3 born none mix bore curve more noon bunny comb vice
4 open exit were none trip crop brown money pine pin

Short phrases

5 go to a|they may keep|with your|and the|it will be
6 very much|sure to|a big|make a|too much|to view it

All letters learned

7 Kevin does a top job on your flax farm with Craig.
8 Dixon flew blue jets eight times over a city park.

Activity 3-57 SHIFT AND ENTER KEY TECHNIQUE

1. Key each line once.

2. At the end of each line, quickly tap the ENTER key and immediately start the next line.

1 Dan took a friend to the game.
2 Jan had a double and a single.
3 Bob and Jose Hill will sing a song.
4 Sam and Jo took the test on Monday.
5 Laura sold her old cars to Sandra Smith.
6 Nicky left to play video games with Tim.

qwam 30" | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 |

MicroType

Use MicroType *Lesson 15 for additional practice.*

LESSON 3-16 New Keys q and , (comma)

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for **q** and , (**comma**).
2. Combine **q** and , (**comma**) with all other learned keys.

Activity 3-58 WARMUP

Key each line twice.

All letters learned
1 six buy jam ask dog call vote down fork crop there

p/v
2 five pups; to vote; pay for; very plain; her plan;

All letters learned
3 Jacki Farve played six games on Thursday with Ben.

Activity 3-59 KEYS q AND , (COMMA)

Using Figures 3-49, 3-50, and 3-51 as references, key each line twice. If time permits, rekey lines 7–9.



FIGURE 3-49
New keys ***q*** and ***, (comma)***



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FIGURE 3-50
q Left little finger



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-51
, (comma) Right middle finger

Learn q

1 a q a q|aqua aqua|quote quote|quad quad|quit quits
2 aq|queen queen|quake quake|equip equip|quick quick
3 a square; the quote; a quart; to acquire; is equal

Learn , (comma)

4 k , k , k, k, ,k,|a,b c,d e,f g,h i,j k,l m,n o,p,
5 Monday, Tuesday, Wednesday, Thursday, and Saturday
6 Rob took Janet, Pam, Seth, and Felipe to the game.

Combine q and , (comma)

7 Key the words quit, squad, square, and earthquake.
8 I have quit the squad, Quen; Raquel has quit, too.
9 Quit, quiet, and quaint were on the spelling exam.

Spacing Tip

Space once after , used as punctuation.

Activity 3-60 KEY MASTERY

Key each line twice. If time permits, key lines 7–8 again.

Technique Tip

- Reach up without moving your hands away from your body.

MicroType

Use MicroType *Lesson 16 for additional practice.*

Double letters

1 add egg ill books access three effect otter cheese
2 Betty and Ross will help cook the food for dinner.

q/comma

3 Marquis, Quent, and Quig were quite quick to quit.
4 Quin, Jacqueline, and Paque quickly took the exam.

Short phrases

5 a box|if the call|when you go|if we can|look for a
6 if we go|it is our|up to you|do you see|she took a

All letters learned

7 Jevon will fix my pool deck if the big rain quits.
8 Verna did fly quick jets to map the six big towns.

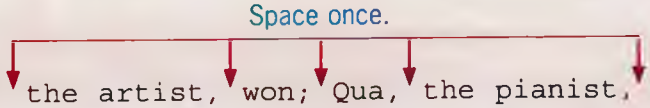
Activity 3-61 SPACING WITH PUNCTUATION TECHNIQUE

1. Key each line once.

2. At the end of each line, quickly tap the ENTER key and immediately start the next line.

Spacing Tip

Space once after , and ; used as punctuation.



1 Quin, the artist, won; Qua, the pianist, also won.
2 Quince, keyed qt. for quart; also, sq. for square.
3 Ship the desk c.o.d. to Dr. Quig at La Quinta Inn.
4 Jay, Kay, and Sue were on my team; Gerald was not.

LESSON 3-17 Review

IN THIS LESSON YOU WILL:

Objectives

1. Learn to key block paragraphs.
2. Improve keying technique and speed.

Activity 3-62 WARMUP

Key each line twice.

All letters learned

1 Jared helped Maxine quickly fix the big wood vase.

shift keys

2 Jake and Kathy went to New York City on Wednesday.

Easy

3 Pamela may hang the signs by the door in the hall.

Activity 3-63 BLOCK PARAGRAPHS

1. Key each paragraph once. Tap enter only at the end of the paragraph.

2. Double-space between the paragraphs; then key the paragraphs again at a faster pace.

Paragraph 1

You already know that you can use the Enter key to space down and start a new line. If you don't use the Enter key, the insertion point will continue on the same line until it reaches the right margin. Then it will automatically space down to the next line.

Paragraph 2

Later in the textbook you will learn how to adjust the right and left margins to vary the line length. As you make the line length smaller, the margins become larger. As you make the line length larger, the margins become smaller.

INSTANT MESSAGE

The paragraphs at the right are called "block" paragraphs. This is because all lines begin evenly at the left margin.

Activity 3-64 KEY BLOCK PARAGRAPHS

1. Key each paragraph once. Tap ENTER only at the end of the paragraph.

2. Key a 1' timed writing on each paragraph. Use the numbers and dots above the words to determine *gwam*. Each dot indicates one additional word. For example, if you key to the beginning of *average* in line 1, you have keyed eight words.

Paragraph 1

```
     •     2     •     4     •     6     •     8     •
The space bar is used frequently.  On average,
  10     •    12     •    14     •    16     •    18     •
every fifth or sixth stroke is a space when you
    20     •    22     •    24     •    26     •    28    •
key.  If you use good techniques, you will be able
   30     •    32     •    34
to increase your speed.
```

Paragraph 2

```
     •     2     •     4     •     6     •     8     •    10
Just keep the thumb low over the space bar.  Move
     •    12     •    14     •    16     •    18     •    20
the thumb down and in quickly towards the palm of
     •    22     •    24     •    26     •    28     •
your hand to get the prized stroke you need to
   30     •    32
build top skill.
```

Activity 3-65 CHECK KEYING SPEED

Key a 30" timed writing on each line. Your rate in gross words a minute (*gwam*) is shown below the lines.

```
1 She owns all of the lake land.
2 The man with the sign may aid them.
3 I may make my goal if I work with vigor.
4 Six of the girls may make a bid for the gown.
5 Laurie and Orlando may make the map of the island.
gwam 30" |  2  |  4  |  6  |  8  |  10  |  12  |  14  |  16  |  18  |  20  |
```

Activity 3-66 BUILD SPEED

Key each line twice.

```
1 I may have six quick jobs to get done for low pay.
2 Vicky packed the box with quail and jam for Jason.
3 Max can plan to bike for just five days with Quig.
4 Jim was quick to get the next top value for Debby.
5 Jack B. Manly requested approval for extra weight.
6 Jacque may have plans for the big dance next week.
gwam 1' |  1  |  2  |  3  |  4  |  5  |  6  |  7  |  8  |  9  |  10  |
```

MicroType

Use MicroType *Lesson 17 for additional practice.*

LESSON 3-18 New Keys z and : (colon)

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for **z** and : (**colon**).
2. Combine **z** and : (**colon**) with all other learned keys.

Activity 3-67 WARMUP

Key each line twice.

All letters learned

1 Max was a big star when he played for Jack Vasque.

shift keys

2 Ramon Santos; Karl Jones; Kate Van Noy; Sue McMan;

Easy

3 Jan and Bob may work with the maid on the problem.

Activity 3-68 KEYS z AND : (COLON)

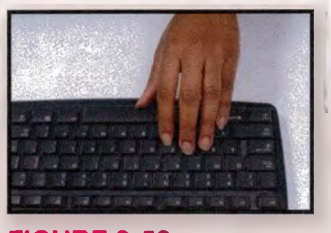


FIGURE 3-53
z Left little finger



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-54
: (colon) Right little finger + Left Shift

Spacing Tip

Space twice after : used as punctuation.

Key each line twice, using Figures 3-52, 3-53, and 3-54 as guides. If time permits, rekey lines 7–9.



FIGURE 3-52
New keys ***z*** and ***: (colon)***

Learn z

1 a z az za za|zap zap|zoo zoo|zone zone|azure azure
2 zip zip|zinc zinc|quiz quiz|zera zero|Zelda Zelda;
3 speed zone; a zigzag; a zoology quiz; puzzle size;

Learn : (colon)

4 ; : ;: :; :;|a:b c:d e:f g:h i:j k:l m:n o:p q:r :
5 To: From: Date: Subject: To: Jason Kummerfeld
6 To: Max Tobin|From: Jerry Cole|Dear Mr. Maxwell:

Combine z and : (colon)

7 Please key these words: amaze, seize, and zigzag.
8 Zane read: Shift to enter: and then space twice.
9 Roz, use these headings: City: State: ZIP Code:

Activity 3-69 KEY MASTERY

Technique Tip

- Use curved, upright fingers.

Key each line twice. If time permits, key lines 5–6 again.

q/z

1 quiz quartz amaze quote Amazon mosque muzzle quick
2 Zane amazed us all on the quiz but quit the squad.

x/comma

3 six, box, tax, axle, next, extra, exhibit, example
4 Lexi, Rex, and Felix went to Texas to the exhibit.

v/m

5 move save moon visit imply valve most vain improve
6 Melvin, Kevin, or Matt drove the van to Las Vegas.

MicroType

Use MicroType *Lesson 18 for additional practice.*

LESSON 3-19 New Keys CAPS LOCK and ? (question mark)

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for CAPS LOCK and **?** (**question mark**).
2. Combine CAPS LOCK and **?** (**question mark**) with other learned keys.

Key Terms

Caps Lock

Activity 3-70 WARMUP

Key each line twice.

Alphabet

1 Jack P. Hildo may buy five quartz rings next week.

x/z

2 excess zebra fixture zoology exact zest extra zero

Easy

3 Jay is to turn to the right when the signal turns.

gwam 1' | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Activity 3-71 KEY CAPS LOCK and ? (QUESTION MARK)



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-56
CAPS LOCK Left little finger



Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-57
? (question mark) Left Shift; then right little finger

The CAPS LOCK key is used to key a series of capital letters. To key capital letters, tap the caps lock key. Key the letters that are to appear in capitals. Then tap the caps lock key again to turn off this feature. Using Figures 3-55, 3-56, and 3-57 as a reference, key each line twice. If time permits, rekey lines 7–9.



FIGURE 3-55
New keys ***CAPS LOCK*** and ***?*** ***(question mark)***

Learn CAPS LOCK

1 Put CUBS and CARDS and METS and EXPOS on the sign.
2 OHIO STATE plays INDIANA on Wednesday or Thursday.
3 Microsoft is MSFT; Intel is INTC; Coca Cola is KO.

Learn ? (question mark)

4 ; ? ; ? ;?|g?h i?j k?l m?n o?p q?r s?t u?v w?x y?z
5 Who? Who? What? What? When? When? Why? Why?
6 Ask who? Are you sure? What time? Where is she?

Combine CAPS LOCK and ?

7 What symbol is DIS? What symbol is YHOO? Did he?
8 What does CPA stand for? What does CFO stand for?
9 Did your mother use NB, NE, or NEBR. for NEBRASKA?

Activity 3-72 KEY MASTERY

Key each line twice. If time permits, key lines 5–6 again.

z/v

1 David and Zack Valdez zipped through both quizzes.
2 Vizquel, Alvarez, Chavez, and Gonzalez have voted.

q/p

3 Quincy quickly put the papers next to the puppies.
4 Paul quickly keyed: quiz, opaque, parquet, equip.

x/c

5 Carl Drexler stood next to Connie Cox and Tex Cey.
6 Rex Cain and Max Carr paid the extra tax for Carl.

Technique Tip

- Use curved, upright fingers.

Activity 3-73 KEY BLOCK PARAGRAPHS

1. Key each paragraph once. Tap ENTER only at the end of the paragraph.

2. Key a 1' timed writing on each paragraph.

3. Determine your *gwam*.

Paragraph 1

```
     •     2     •     4     •     6     •     8     •
Before long you will key copy that is written in
10    •     12    •     14    •     16    •     18    •
script.  Script copy is copy that is written with
20    •     22    •     24    •     26    •     28    •
pen or pencil.  With practice, you will be able
  30     •    32     •    34     •
to key script at a rapid rate.
```

Paragraph 2

```
     •     2     •     4     •     6     •     8     •    10
A rough draft is a draft that is not yet in final
     •     12    •     14    •     16    •     18    •
form.  It is where the writer can get his or her
20    •     22    •     24    •     26    •     28    •
thoughts down on paper.  After the rough draft is
30    •     32    •     34    •     36    •     38    •
completed, it is ready to be edited.  It may take
40    •     42    •     44    •     46    •     48
several edits before it is put in final form.
```

MicroType

Use MicroType *Lesson 19 for additional practice.*

LESSON 3-20 New Keys TAB and BACKSPACE

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for TAB key and BACKSPACE.
2. Improve and check keying speed.

Key Terms

BACKSPACE

TAB

Activity 3-74 WARMUP

Key each line twice.

Alphabet

```
1 Quig just fixed prize vases he won at my key club.
```

caps lock

```
2 Find ZIP Codes for the cities in WYOMING and IOWA.
```

Easy

```
3 It may be a problem if both girls go to the docks.
```

gwam 1' | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Activity 3-75 KEY BACKSPACE


Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-58
BACKSPACE Right little finger

INSTANT MESSAGE

This symbol means to delete.

The BACKSPACE key is used to delete characters. You should key the backspace key with your right little finger, as shown in Figure 3-60. Keep your index finger anchored to the J key as you tap backspace. Tap the backspace key once for each letter to be deleted. Then return the finger to the ; key. When you hold down the backspace key, letters to the left of the insertion point will be deleted until the backspace key in Figure 3-58 is released.

Use the BACKSPACE key to key the sentence as instructed.

1. Key the following.
   `The delete`
2. Use the BACKSPACE key to make the change shown below.
   `The delete`
3. Continue keying the sentence as shown below.
   `The backspace key can be`
4. Use the BACKSPACE key to make the change shown below.
   `The backspace key can be is`
5. Continue keying the sentence as shown below.
   `The backspace key is used to fix`
6. Use the BACKSPACE key to make the change shown below.
   `The backspace key is used to fix make`
7. Continue keying the sentence shown below.
   `The backspace key is used to make changes.`

Activity 3-76 KEY TAB


Cengage Learning/Bill Smith Group/Sam Kolich

FIGURE 3-59
TAB Left little finger

Software Tip

Click the Show/Hide button in the Paragraph group of the Home ribbon to display formatting marks. TAB appears as a right arrow (→).

The TAB key (as shown in Figure 3-59) is used to move the insertion point to a specific location on the line. For example, tab can be used to indent the first line of a paragraph. Word processing software has preset tabs called *default* tabs. Usually, the first default tab is set 0.5" to the right of the left margin. This tab setting is used to indent paragraphs as shown below.

Key each paragraph once. If time permits, key them again.

Tab → `The tab key is used to indent blocks of copy such as these.`

Tab → `It should also be used for tables to arrange data quickly and neatly into columns.`

Tab → `Learn now to use the tab key by touch; doing so will add to your keying skill.`

Tab → `Tap the tab key very quickly. Begin keying the line immediately after you tap the tab key.`

Activity 3-77 TAB AND BACKSPACE

Key each paragraph once. Use the BACKSPACE key to correct errors as you key. If time permits, key the paragraphs again.

Tab → George Washington was the first president of the United States. Before becoming president, he played a key role in helping the colonies gain their freedom.

Tab → Washington was the commander of the Continental Army. Much has been written about the winter he and his army spent at Valley Forge.



Technique Tip

When you use the BACKSPACE key, keep the index finger anchored to the **J** key.

Activity 3-78 CHECK SPEED WITH ALL THE LETTERS

1. Open a blank word processing document.

2. Key each paragraph once to warm up.

3. Key a 1' timed writing on each paragraph; determine *gwam*.

```
          *     2     *     4     *     6     *     8     *
     How you key is just as vital as the copy you
    10    *    12    *    14    *    16    *    18    *
Work from or produce. What you put on paper is a
    20    *    22    *    24    *    26    *    28
Direct result of the way in which you do the job.
          *     2     *     4     *     6     *     8     *
     If you expect to grow quickly in speed, take
    10    *    12    *    14    *    16    *    18    *
Charge of your mind. It will then tell your eyes
    20    *    22    *    24    *    26    *    28
and hands how to work through the maze of letters.
```

INTO THE CLOUD

Keying Better Keywords

In the cloud, it is all about knowing how to find the information you need. When you are finished with school, your learning is far from complete. In fact, you will just be getting started. And it may be a little harder than you think to keep up. According to a 2007 study by IBM (International Business Machines) the amount of digital data online will double every 11 hours starting in 2010.[1]

We are well past 2010, and the volume of new online information is increasing exponentially by the second. Another study, from 2009, puts this voluminous data load into terms we can understand. According to Emma Woollacott, reporting in TG Daily,

"If you feel you're drowning in a sea of data, you're right. The world's total store of digital data now amounts to 487 billion gigabytes, or the equivalent of 19 billion fully-loaded Blu-ray DVDs, thanks to social networking, internet-enabled mobile phones and government surveillance … this figure is expected to double in size every 18 months."[2]

How in the world can you wade through all that information? Well, you cannot. Nobody can read through the billions of bits of data posted online. This is where the ability to search becomes invaluable. Computer tools specializing in search, like Google and Bing, are your lifeline in the middle of an ocean of data.

Let's be honest. Some things are easy to search for. Finding movie, restaurant, or concert tickets is easy. Generally, buying products is easy. But what about finding a more obscure bit of information?

Discussion:

1. Have you ever searched for something and been unable to find what you are looking for?
2. Can you give a few specific examples of failed searches?
3. How many of the top ten search results are really targeted at what you are looking for?
4. What can you do to improve your search keyword choices?
5. Can you use a search to learn how to improve your search technique and keywords?

[1]Farber, Dan, "2010: Data doubling every 11 hours," February 13, 2007, 4:12pm PST ZDNet. Online: http://www.zdnet.com/blog/btl/2010-data-doubling-every-11-hours/4497.

[2]Woollacott, Emma, "Digital content doubles every 18 months", TG Daily, Online. http://www.tgdaily.com/hardware-features/42499-digital-content-doubles-every-18-months (Tue 19th May 2009, 03:00 am).

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 3-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools*.

Building Up: Your Math Skills

Exercise 3-2 HYPHENATING NUMBERS

Numbers between twenty-one to ninety-nine require a hyphen. (So do fractions, such as five-eighths and one-fourth.) But where is the hyphen? It is right next to the 0 key. The reach is a long one; move your right-hand little pinky straight up to the hyphen. No need to press the Shift key.

1. Open a new word processing document.
2. Key your name and press enter twice.
3. Key the following and feel the reach to the hyphen:

   - ; - ; j k l ; - j k l ; - - ; - - ; - ; - ; ; - ;

4. Key all the numbers between twenty-one and ninety-nine. We will get you started. Key the following numbers, pressing the **Tab** key between each number:

twenty-one	**twenty-two**	**twenty-three** (keep going to twenty-nine)
thirty-one	**thirty-two**	**thirty-three** (keep going to thirty-nine)
forty-one	**forty-two**	**forty-three** (keep going to forty-nine)
fifty-one	**fifty-two**	**fifty-three** (keep going to fifty-nine)
sixty-one	**sixty-two**	**sixty-three** (keep going to sixty-nine)
seventy-one	**seventy-two**	**seventy-three** (keep going to seventy-nine)
eighty-one	**eighty-two**	**eighty-three** (keep going to eighty-nine)
ninety-one	**ninety-two**	**ninety-three** (keep going to ninety-nine)

5. Save your file as ***Exercise 3-2*** in your ***Chapter 3*** solutions folder.

Building Up: Your Language Arts Skills

Exercise 3-3 FROM THE EDITOR'S DESK: CREATING POSSESSIVES

Note: Your Editor's Desk exercises are in the Cloud! Follow these steps to the Corporate View intranet and download some helpful lessons.

1. Open your browser software. Use the bookmark in your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet and pick **Corporate Communications > From the Editor's Desk**.)
2. Choose the **Creating Possessives** link. Copy and paste the questions to a word processing document and answer the questions. (Read the information provided on the Web page and follow the directions for completing this practice exercise.)
3. Check your answers by comparing them with the answers on the bottom of the intranet page.
4. Save your work in your ***Chapter 3*** solutions folder as ***Exercise 3-3 Creating Possessives***.

Career Clusters



Education & Training

When you first think of the Education & Training career cluster, you probably think of your schoolteachers. About 8 million teachers are employed in the United States.

Education can be a very rewarding career path for those who possess great interpersonal skills and a love of teaching. Teachers specialize by age and subject area. There are preschool, kindergarten, elementary, secondary, college, and adult education teachers. Content areas cover a wide range of subjects as illustrated in Table 3-2.

Science	History	Art
Mathematics	Computers and technology	Drama
Language arts	Music	Physical education, health, and sports

TABLE 3-2 Subject Areas for Instructors

Another group of educators, which you may not think of right away, teach for businesses. An estimated $60 billion is spent each year training employees.

A bachelor's degree is usually required to work in education and training. However, about 2 million teaching assistants serve in schools with some college training but no degree. Review education and training jobs and their potential salaries in Table 3-3. (Please note that salaries for teachers can vary wildly from state to state and country to country.)

Position and Yearly Salary		Position and Yearly Salary	
Teacher Assistant	$19,410	Preschool Teacher	$21,940
Librarian	$45,900	Kindergarten Teacher	$41,400
Museum Curator	$36,470	Elementary Teacher	$45,320
Special Education Teacher	$46,050	Secondary School Teachers	$46,580
Vocational Education Teacher	$46,050	Postsecondary Teachers	$51,800
Corporate Trainer	$51,747	Adult Literacy Instructor	$38,980
Elementary School Principal	$74,078	Sports Coach	$36,610

TABLE 3-3 Career Cluster: Education and Training

Exercise 3-4 A STORY ABOUT YOUR FAVORITE TEACHER

Almost everyone has been influenced by a teacher. What about you? Use your keying skills and describe your favorite instructor in your own words.

1. Think about your favorite teacher for a few minutes. What did you like about that teacher?
2. Open a new word processing document.
3. Key your name and press **Enter** twice.
4. Give yourself 15 minutes to key a story about your favorite teacher and how that individual helped you in your education. As you key:
   a. Do not correct ANY errors as you go. You will fix your mistakes later.
   b. Do not look at your hands as you compose your story.
5. Proofread your story. Fix any mistakes you may have made.
6. Save your file as ***Exercise 3-4*** in your ***Chapter 3*** solutions folder.

21st-Century Business Skills

Comparing and Contrasting Productivity DigiTools

Exercise 3-5 KEYWORDS FOR KEYBOARDING IN THE CLOUD



One day you may find yourself stuck in the office with nothing to do. It happens. If you hurry and finish your work early, you may find yourself sitting there twiddling your thumbs. Obviously, you cannot play videogames or jump onto Facebook on company time! You can, however, spend some time improving your keyboarding skills.

You do not want to spend any money on something you may just have the opportunity to use occasionally. Can you find an app that is free to use? You know you can use Google or Bing and a few keyboarding related search terms. But what are the best possible search terms?

Before you begin, think about the goal you have for your keywords. What is it you want to locate? In this case, you are looking for an online keyboarding app that will allow you to practice your keyboarding skills, complete with timings, that is free! Is that possible?

1. Have each team member pick different keyword combinations to test. (Hint: two, three or four word combinations can be used.) Compare to make sure you are not performing the same searches.
2. Perform your searches independently.
3. Share and compare each other's results. Which set of keywords got the best results? (Gauge results based upon which keywords got the most accurate matches in the top five or ten results.)
4. Of everyone's results, find five possible online sites or apps that can help you with your keyboarding skills.
5. Open a new word processing document and key your name at the top of the page.
6. Key the Web addresses of all five sources your team has located. When you enter your addresses, add the **http://** before the Web site address. For example, *http://www.cengagelearning.com*. (Hint: The / key is call a slash and is located on the question mark key. Use the small finger on your right hand to reach down and create that slash.)
7. Save your file as ***Exercise 3-5*** in your ***Chapter 3*** solutions folder.

Exercise 3-6 SEARCH FOR ALTERNATIVE INPUT DIGITOOLS

In Table 3-1, many productivity tools are listed. The table points you to lessons that will teach you how to use those technologies. Before you begin those appendices and chapters, look up some information about these technologies online.

1. Enter search keywords to learn more about the following technologies.

   Multi touch screens (or Touch pads)

   Handwriting recognition software

   Speech recognition software (or Voice typing software)

   Numeric keypads

   Digital scanners

   Digital cameras

   Drawing and sketching software

2. Open a new word processing document, and key your name at the top of the page. Press **Enter** twice.
3. Key the name of each technology listed above, followed by a 25 word description of each technology in your own words.
4. Save your file as ***Exercise 3-6*** in your ***Chapter 3*** solutions folder.

Critical Thinking: Search for Answers

Exercise 3-7 RACE AND SEARCH FOR ANSWERS



This is a race. Get ready with the members of your team and begin at the same time.

1. Use your critical thinking and keyword entry skills to find the answers to the following questions:
   The largest city in the world is _____.
   The oldest city in the world is _____.
   The oldest democracy in the world is _____.
   The largest state in Australia is _____.
   The longest five rivers in the world are _____.
   The largest desert in the United States is _____.
2. Open a new word processing document and key your name at the top of the page.
3. Key the sentences in step 1, filling in the correct answers as you key.
4. As soon as you are done, raise your hand and say, "Finished!"
5. Save your file as ***Exercise 3-7*** in your ***Chapter 3*** solutions folder.

Teamwork and Collaboration

Exercise 3-8 RESEARCH AN ARTICLE ABOUT TEAMWORK

As part of their ongoing training program, Corporate View often publishes articles related to teamwork. In this activity, you will find and read the current article.

1. Access the Corporate View intranet, and open the Corporate View intranet home page.
2. Choose **Regular Features > Corporate View Archive > Productivity through Collaboration** (Article).
3. Read the short report.
4. Write a 500-word summary in a word processing document explaining the article. (Be adventurous and try to do this exercise in an online word processing doc rather than using a desktop word processor. See if you can figure out how to use the online tools well in advance of the exercises in Chapter 5.)
5. Save the summary in a document called ***Exercise 3-8*** in your ***Chapter 3*** solutions folder, or if you created the file online, create a ***Chapter 3*** folder in the cloud and save your work inside that folder with the name ***Exercise 3-8***.

Skill Builder 1

Keyboard Review

Key each line twice.

A/Z 1 Zack had a pizza at the plaza by the zoo on a hazy day.
B/Y 2 Bobby may be too busy to buy me a bag for my boat trip.
C/X 3 Ricky caught six cod to fix for the six excited scouts.
D/W 4 Wilda would like to own the doe she found in the woods.
E/V 5 Evan will give us the van to move the five heavy boxes.
F/U 6 All four of us bought coats with fur collars and cuffs.
G/T 7 Eight men tugged the boat into deep water to get going.
H/S 8 Marsha wishes to show how to make charts on a computer.
I/R 9 Ira can rise above his ire to rid the firm of a crisis.
J/Q 10 Josh quietly quit the squad after a major joint injury.
K/P 11 Kip packed a backpack and put it on a box on the porch.
L/O 12 Lola is to wear the royal blue skirt and a gold blouse.
M/N 13 Many of the men met in the hall to see the new manager.

Timed Writings

1. Key two 1' timings on each ¶; determine *gwam*.
2. Key two 2' timings on ¶s 1–2 combined; determine *gwam*.
3. If time permits, key 1' guided timings on each ¶. To set a goal, add 2 to the *gwam* achieved in step 1.

Quarter-Minute Checkpoints

gwam	1/4'	1/2'	3/4'	1'
24	6	12	18	24
28	7	14	21	28
32	8	16	24	32
36	9	18	27	36
40	10	20	30	40
44	11	22	33	44
48	12	24	36	48
52	13	26	39	52
56	14	28	42	56

LA **all letters used** MicroPace

gwam 2

One of the best-known inaugural addresses was given 5
by President John F. Kennedy. The exact words of this 11
President are permanently imprinted into the minds of 16
numerous Americans. If you were to say, "Ask not what 21
your country can do for you but what you can do for your 27
country," quite a few Americans would know the individual 33
you were quoting. 34
These words alone make an impression. However, the 40
way John F. Kennedy delivered them with such zealousness 45
made them have an even greater impact. What do you think 51
he meant by these words? Do you think it is more or less 57
important for Americans to try and live by these words 62
today than when Kennedy delivered them in his inaugural 67
address? 68

gwam 2' | 1 | 2 | 3 | 4 | 5 | 6 |

Skill Builder 2

Speed Building

1. Key each line twice with no pauses between letters or words.
2. Key a 1' timing on lines 2, 4, 6, 8, and 10; determine *gwam* on each timing.

space 1 and the she big city disk held half firm land paid them make
bar 2 Jane and the man may handle the problems with the city firm.
shift 3 Moorcroft, WY; Eau Claire, WI; New York City, NY; Newark, DE
keys 4 M. L. Ramirez left for San Francisco on Tuesday, January 23.
adjacent 5 wire open tire sure ruin said trim quit fire spot lids walks
keys 6 Katrina opened a shop by the stadium to sell sporting goods.
long direct 7 many vice brag stun myth much cents under check juice center
reaches 8 I brought a recorder to the music hall to record my recital.

gwam 1' | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

Timed Writings

1. Key a 1' timing on each ¶; determine *gwam*.
2. Key a 2' timing on ¶s 1–2 combined; determine *gwam*.
3. Key a 3' timing on ¶s 1–2 combined; determine *gwam* and number of errors.

A all letters used MicroPace

gwam 2 | 3

"I left my heart in San Francisco." This expression 5 | 4
becomes much easier to understand after an individual has 11 | 7
visited the city near the bay. San Francisco is one of 17 | 11
the most interesting areas to visit throughout the entire 23 | 15
world. The history of this city is unique. Even though 28 | 19
people inhabited the area prior to the gold rush, it was 34 | 23
the prospect of getting rich that brought about the fast 40 | 26
growth of the city. 42 | 28

It is difficult to write about just one thing that this 47 | 31
exquisite city is known for. Spectacular views, cable cars, 53 | 35
the Golden Gate Bridge, and Fisherman's Wharf are only a 59 | 39
few of the many things that are associated with this amazing 65 | 43
city. The city is also known for the diversity of its people. 71 | 48
In fact, there are three separate cities within the city, 77 | 51
Chinatown being the best known. 80 | 54

gwam 2' | 1 | 2 | 3 | 4 | 5 | 6 |
3' | 1 | 2 | 3 | 4 |

Quarter-Minute Checkpoints

gwam	1/4'	1/2'	3/4'	1'
24	6	12	18	24
28	7	14	21	28
32	8	16	24	32
36	9	18	27	36
40	10	20	30	40
44	11	22	33	44
48	12	24	36	48
52	13	26	39	52
56	14	28	42	56
60	15	30	45	60

Skill Builder 3

Reading/Keying Response Patterns

1. Key each line three times (slowly, faster, top speed).
2. Key two 1' timings on lines 7–9; determine *gwam* on each timing.

Emphasize quick finger reaches, wrists low and relaxed.

balanced-hand words
1 is by do if go he so us to me of jam row rug she bus air but city
2 both also busy held duck dial form make rush sick soap when towns
3 visit widow theme title ivory proxy quake shape amend burnt chair

Emphasize high-speed phrase responses.

balanced-hand phrases
4 He owns it | make the signs | paid the man | go to work | if they fix the
5 Go to the | they may make | to the problem | with the sign | and the maps
6 With the city | the eighth neighbor | social problem | the big ornament

Emphasize high-speed, word-level response; quick spacing.

balanced-hand sentences
7 Pamela paid the man by the city dock for the six bushels of corn.
8 Keith may keep the food for the fish by the big antique fishbowl.
9 The haughty girls paid for their own gowns for the island social.

gwam 1' | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |

Timed Writings

1. Key two 1' timings on each ¶; determine *gwam*.
2. Key three 2' timings on ¶s 1–2 combined; determine *gwam*.

A all letters used MicroPace

gwam 1' 2'

A business is in business to make a profit. They do 11 5
this by employing individuals who help the organization 22 11
achieve its goals. In the past, various styles of 32 16
leadership were used. Today, however, one of the most 42 21
common styles used is the democratic style. This is where 54 27
decisions are made by a team of individuals rather than 65 33
by just one person. 69 34

Because more and more companies are operating as a 79 40
team, it is important for you to learn to participate as 90 45
part of a team. This requires an effort on your part. 101 51
Good team members listen to the opinions of other individuals 113 57
on the team. Good team members are considerate of others. 125 62
Good team members respect the rights of others. Good team 136 68
members are excellent communicators. 144 72

gwam 1' 2' | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

Chapter 4

Powerful Presentations

Lesson 4-1 The Eight Keys to Powerful Presentations
Lesson 4-2 Adding Visual Appeal
Lesson 4-3 Researching, Taking Notes, and Planning
Lesson 4-4 Polishing Your Presentation Skills

EIGHT KEYS TO GREAT PRESENTATIONS

At one time or another, you will be asked to stand in front of a group and make a presentation. It is inevitable. Fortunately, applications like Microsoft PowerPoint and Google Docs can help you create a successful presentation. Both create exciting multimedia shows that can help you shine in front of any group, large or small. And these presentation applications are remarkably easy to learn.



Andresr/Shutterstock.com

FIGURE 4-1
Present with Confidence

Learning to use your presentation software is only a small part of the battle. Your primary challenge is to communicate your ideas to an audience in a powerful way. To ensure success, you should apply the Eight Keys of Dynamic Digital Communication that are explained in more detail in Table 4-1. Commit these eight points to memory because they apply to whatever medium of communication you choose to use.

INSTANT MESSAGE

A medium is the form a digital communication project takes. It may be a Web page, e-mail, brochure, book, magazine article, blog, radio or television spot, report, media kit or press release, PowerPoint presentation, photograph, or work of art.

1	Message & Purpose	What are you going to present, and why are you going to present it?
2	Audience & Impact	Who are you creating your presentation for, and what do you anticipate they will do with the information?
3	Boundaries & Guidelines	Analyze any boundaries (instructions, restrictions, limitations, and guidelines) that will affect your presentation, such as word or page count, the medium to be used, and the deadline.
4	Research, Take Notes, & Plan	Research your message, topics, subtopics, and details while collecting references for citations. As you research, take notes, brainstorm, and record your ideas and creative thoughts. Brainstorm and plan your presentation, and even create a storyboard to guide your work.
5	Create from General to Specific	Grab the attention of your audience by creating a general overview at the beginning and providing more specific information toward the middle and end of your presentation.
6	Readability, Style, & Personality	Present your message in a way that is easy to read, follow, and understand. Use an appropriate personality, style, voice, or attitude in your writing projects and presentations.
7	Accessibility & Visual Appeal	Make the most important information the most accessible or the easiest to find. This may be done with formatting, hyperlinks, tables, bulleted and number lists, and the careful use of headings among other methods. Supply any visual information that will add to the message.
8	Proofing & Accuracy	Proofread carefully. Ensure your presentation is accurate and free from grammatical and spelling errors.

TABLE 4-1
Eight Keys of Dynamic Digital Communication

LESSON 4-1 The Eight Keys to Powerful Presentations

IN THIS LESSON YOU WILL:

Objectives

1. Learn the PowerPoint user interface.
2. Apply message & purpose and audience & impact to a presentation.
3. Consider boundaries & guidelines while creating presentations.
4. Plan for readability as you create a presentation.
5. Correct errors on slides in your presentation.

Key Terms

talking points
title slide

MESSAGE & PURPOSE—AUDIENCE & IMPACT

TravelView is a travel agency for Corporate View, a major corporation. TravelView plans travel for company executives, organizes team and department meetings, and creates memorable business conferences in its luxury mountain lodge. Close to world-class skiing, mountain biking, fishing, and golf, the TravelView Mountain Lodge is the center for team-building activities for the company.

TravelView is constantly hiring and training new employees to meet its mission. In this chapter, you will prepare an orientation for new employees. You will assume the role of a human resource director for TravelView. As you proceed, you must apply the *Eight Keys of Digital Communication*. We will take them a few at a time to help you apply them effectively:

Message & Purpose	You will introduce new employees to TravelView by explaining how the company came about and how it is organized. This is your *message*. Your *purpose* is to make each new employee feel welcome and knowledgeable about the company and its TravelView teams.
Audience & Impact	Your *audience* is a group of recently hired employees that will be working for Corporate View's TravelView division. The main *impact* you desire is to help each new employee fit in and feel as though he or she is important to the company's success.

In order to accomplish these goals, you must first learn PowerPoint's unique user interface (UI).

Activity 4-1 LEARN POWERPOINT'S UI

1. Start PowerPoint and, if necessary, open a new, blank PowerPoint presentation:
   PowerPoint 2010: **File > New > Blank Presentation > Create** as seen in Figure 4-2a.
   PowerPoint 2007: **Office Button > New** as seen in Figure 4-2b, followed by **Blank Presentation > Create**.

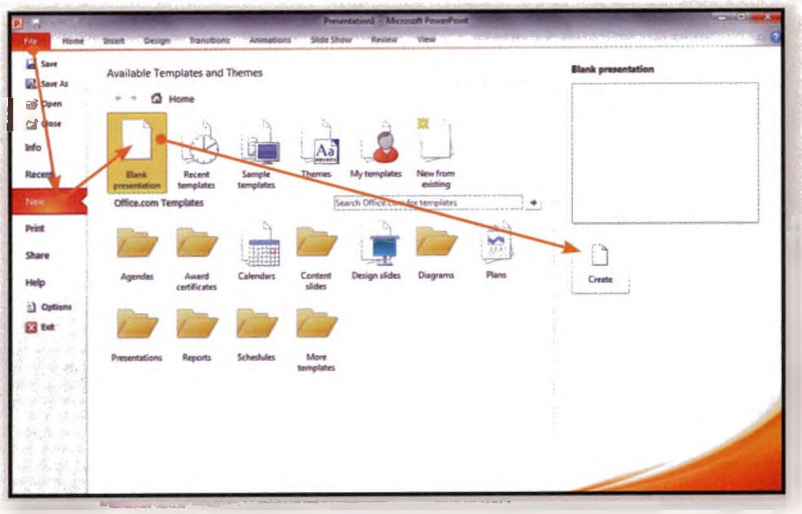


FIGURE 4-2a PowerPoint 2010's File Menu Access to Backstage



FIGURE 4-2b PowerPoint 2007 Office Button

2. Memorize the parts of the PowerPoint UI indicated in Figure 4-3.
3. Notice the Ribbon of tools found on the Home tab. The Ribbon and the Home tab are found on all Microsoft Office applications. This makes them easy to learn. Each tab's Ribbon is broken into groups. For example, in Figure 4-3, you can see *Clipboard*, *Slides*, *Font*, *Paragraph*, *Drawing*, and *Editing* Ribbon groups.

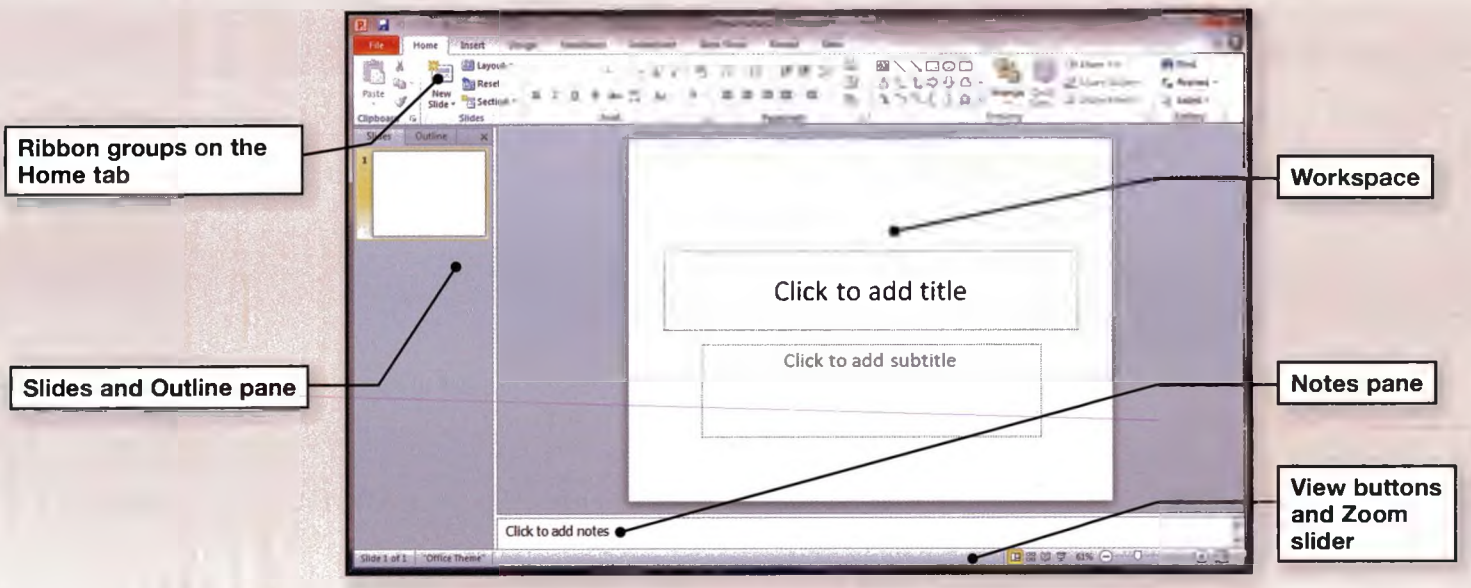


FIGURE 4-3 PowerPoint UI

Watch the Video
Go to the video for this lesson.

A video illustrating how to perform the skills in this lesson is available from your instructor or online at: www.cengage.com/school/keyboarding/digitools.

DigiTip

The *Slides* group is essential to PowerPoint. It allows you to add a new slide, change the layout, reset, and delete slides in your PowerPoint presentation.

4. Click or tap the **Insert** tab. Notice the *Tables* group, the Picture and Clip Art buttons in the *Images* group, and the SmartArt button in the *Illustrations* group as shown in Figure 4-4. Notice also the *Media* group, which allows you to insert movies and sounds.



FIGURE 4-4 Tools on the Insert Tab

5. Click or tap the **Design**, **Transitions**, and **Animations** tabs and notice the options available in each. These buttons will allow you to create attractive slides.
6. Click or tap the **Slide Show** tab. These features are helpful in running your slide show, adding narrations, and having the slide show repeat.
7. Click or tap the **Review** tab. The Review features allow you to collaborate with others.
8. Click or tap the **View** tab. The View features allow you to adjust your slides for on-screen display or for printed handouts. (See Figure 4-5.)



FIGURE 4-5 Tools of the View Tab

9. Explore the tabs and Ribbons until you feel comfortable with their location.

INSTANT MESSAGE

PowerPoint 2007 and 2010 have similar ribbons, groups, and buttons. When there is a difference that impacts your work, we will let you know in the step-by-steps.

INSTANT MESSAGE

Make sure the Normal button has been selected. This is the feature you will use to design your slides in the activities that follow.

BOUNDARIES & GUIDELINES

Before you begin, you should have a clear idea of the boundaries and guidelines for this PowerPoint presentation by asking some important questions:

How much time do I have for the presentation? Your presentation will be about five to ten minutes in length.

How many slides do I need to use? Your slide show will be eight to ten slides long.

Should I use notes on my slides? Yes! You should add notes to key slides. Notes will help you stay focused and remember everything you must say in the presentation. They will help you avoid becoming nervous because you can quickly look up what you need to say.

Activity 4-2 BEGIN YOUR POWERPOINT PRESENTATION

DigiTip

slide is called a **title slide**. Like a cover page for a report, a title slide usually lists your name and the title of your presentation. Following that, you will create a slide that will introduce you to your audience and your audience to each other.

1. If necessary, restart PowerPoint, open a Blank document, and then click or tap the **Home** tab.
2. As seen in Figure 4-3, click or tap **Click to add title** in the center of the Slides pane, and key the main title of the presentation:

   New Employee Orientation
3. Click or tap **Click to add subtitle**. Key your name as seen in Figure 4-6.

DigiTip

The Notes pane at the bottom of the screen may be rather narrow. Hover over the bar above it. When the double-sided arrow appears, touch or click and drag upwards to expand the width of the Notes pane as illustrated in Figure 4-6.

4. Click or tap **Click to add notes** in the bottom of your PowerPoint window as marked in Figure 4-6. Key the following notes to remind yourself of the goals of your presentation:

   Message & Purpose: **Introduce new employees to Corporate View and TravelView's HR, Lodge, and Travel Agency teams.**

   Audience & Impact: **Audience comprised of new employees. The idea is to have new employees excited about going to work at TravelView.**

   Boundaries & Guidelines: **About eight to ten slides for a five to ten minute presentation.**

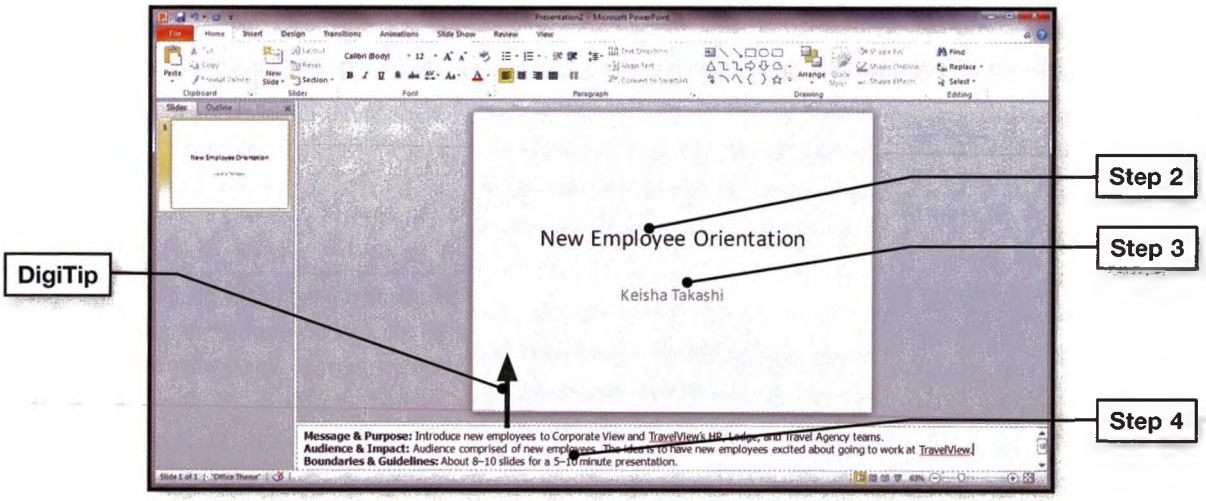


FIGURE 4-6 Your Title Slide

5. Add a second slide to your presentation by choosing **New Slide** from the Home tab's *Slide* group as seen in Figure 4-7. Be sure to click the lower half of the button, where the down arrow is visible, so that you see the options shown in Figure 4-7.

6. There are many different slide layouts to choose from, as seen in Figure 4-7. Select the **Two Content** option from the gallery of choices.

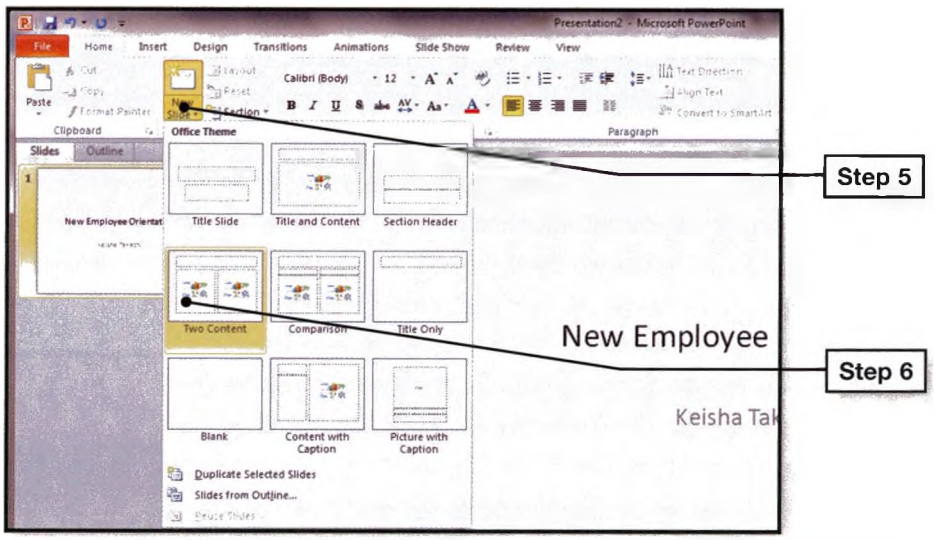


FIGURE 4-7 Content Options

INSTANT MESSAGE

When making a presentation to a group, it is important to provide your contact information so participants can contact you with their follow-up questions.

7. Click or tap **Click to add title** in the top portion of the new slide, and key the word **Introductions**.

DigiTip

Creating lists: Presentations often use lists to make slides more readable. When you choose **Click to add text** and begin keying words, a bullet of some kind will automatically appear. If you tap **Enter**, another bullet will appear. To create sublists, tap the **Tab** key. Press **Shift + Tab** to move back up one level to continue your primary list. Use these keys as indicated in the following steps.

INSTANT MESSAGE

PowerPoint will automatically create hyperlinks out of any e-mail addresses and Web addresses that you key. This puts you one click away from the resource you just entered.

8. Click or tap the left-hand side text input area where it says **Click to add text** and key:
   About me [Enter]

9. As seen in Figure 4-8, key the following information:
   [Tab] HR Director [Enter]
   Email address [Enter]
   Phone number [Enter]

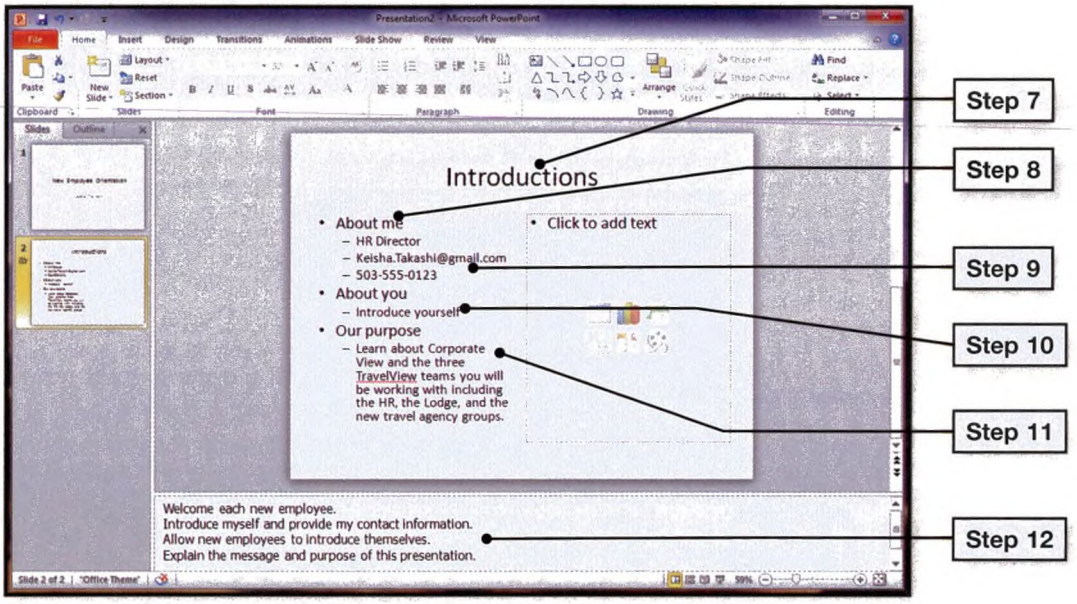


FIGURE 4-8 A Welcome Slide

DIGITIP

As you key long strings of text, PowerPoint will automatically resize the text so it fits in the text box.

10. Move your starting point back to the margin, and key the following text:
    [Shift + Tab]
    About you [Enter]
    [Tab] Introduce yourself

11. Key the following information about message and purpose:
    [Shift + Tab]
    Our purpose [Enter]
    [Tab] Learn about Corporate View and the three TravelView teams you will be working with including the HR, the Lodge, and the new travel agency groups.

12. In your Notes pane, key the following information:
    Welcome each new employee.
    Introduce myself and provide my contact information.
    Allow new employees to introduce themselves.
    Explain the message and purpose of this presentation.

13. Save your presentation as ***Orientation 1*** in your ***Chapter 4*** solutions folder, and leave it open for Activity 4-4.

DIGITAL SNAPSHOT

Talking Points

Many people want to place everything they wish to say on a slide and just read the slide to their audience. This is definitely *not* the way to use PowerPoint. PowerPoint uses bulleted **talking points** to remind presenters of what they wish to say. For example, in slide 2 of your ***Orientation 1*** slide show:

- The bulleted item *About me* will remind you to introduce yourself and talk about your interests, your family, and the things you like about your job. This will help you set a relaxed yet professional tone for the new employees.
- The bulleted item *About you* will remind you to ask each new employee to talk about his or her background, education, and interests and where he or she is from.
- The *Purpose* bullet will give you a chance to explain what the presentation's primary goals will be.

Talking points should be short and to-the-point. They are designed to focus attention. If you need to record the details, use your notes. Notes allow you to script each bulleted item. The notes/script presents the words you will say.

Giving a PowerPoint presentation is a lot like what newscasters do on the nightly news. In fact, it may help you to think of a PowerPoint presentation as a news program. Imagine that a graphic with text appears on the screen behind you with a title slide that says "Earthquake in Iowa." As this title appears, the on-screen newscaster will read his or her scripted notes from a teleprompter to the television audience. The audience will not see the script; they will see the talking point title "Earthquake in Iowa" on the screen behind the newscaster—just as your audience will not see the Notes pane from which you can obtain your more detailed information.

READABILITY

Present your bulleted talking points in a way that is easy to read, follow, and understand by applying the principle of readability as explained in Table 4-1. Do not place too much text on any one slide. (See *Digital Snapshot: Talking Points*.) Because your slide show must be readable from across a crowded room, you need to limit the number of words you place under each bulleted talking point. So how much text should be on each slide to maximize readability? How large should the fonts be? Find out in the next activity.

Activity 4-3 PLANNING FOR READABILITY

1. Open your note-taking software (Microsoft Word, WordPad, or another word processing application).
2. Open your browser and go to **www.cengage.com/schools/keyboarding/digitools**. Select the **Digitools 3rd Edition** cover. Then click or tap on the **Corporate View Intranet** link. (*Note:* Your instructor may also have a local copy of the Corporate View Intranet available. Ask your instructor for the location of this website.)
3. Choose **Corporate Communications**, followed by **Style Guide**. From the Style Guide list, choose **Presentations**. Choose **Font Size and Style** from the list.

4. Answer the following questions in your notes:
   - What is the smallest font size you should consider using for a multimedia slide show presentation?
   - What is the 10-to-1 rule? (Give an example.)
   - Your color choices, equipment, and room lighting and the configuration of your room also affect the _____ of the text.
   - If your projection equipment is not very powerful, increase the readability of the text by choosing a(n) _____ _____ font. Explain why this type of font is considered more appropriate for use in PowerPoint presentations.
5. Use your browser's **Back** button to return to your list of presentation topics. Choose **Number of Words Per Slide and Use of Lists**. Fill in the answers to the following blanks in your notes:
   - With slide show presentations, _____ is more. Do not try to explain _____ in detail on a slide. That is a huge mistake.
   - Try to _____ words, not add them. If you need to provide more details for supporting information, create a(n) _____!
   - Lists can help you avoid bulky, _____-_____-_____ paragraphs.
   - As a general rule, limit the number of words per item in a list to fewer than _____ words.
   - Limit the number of listed items to _____ or fewer whenever possible.
6. Save your notes with the name ***Activity 4-3*** in your ***Chapter 4*** solutions folder.
7. Close your browser and your note-taking software.

Activity 4-4 CORRECT ERRORS ON A SLIDE

There are at least five ways to open a presentation you have previously saved.

- Search for the file with the Windows Start/Search tool. (See Activity 1-9.)
- In Windows 7, click **Start**. Then choose the arrow to the left of the application icon to display recent documents, and pick ***Orientation 1*** from the list.
- Search through your folders to your ***Chapter 4*** solutions folder. (See Lesson 1-5.)
- Click **Start** > **Documents**, and search through your folders to your ***Chapter 4*** solutions folder. (See Lesson 1-5.)
- Click **File** > **Open** in PowerPoint, and browse through your folders. (See Lesson 1-5.)
- To keep it very simple, open ***Orientation 1*** from your Recent Documents list as explained in step 1 below.

INSTANT MESSAGE

Periods are optional in PowerPoint lists. The general rule is that you leave periods out unless you have a complete sentence that is longer than five words.

1. If necessary, open PowerPoint and your ***Orientation 1*** slide show. Examine your first two slides. Is the font size big enough? Does it follow the rules concerning readability you just learned about in the preceding activity?

INSTANT MESSAGE

Make sure the font size is 24 points or larger. If necessary, use the Font Size feature on the Home tab to increase or decrease the font size.

Hot Tip

The lengthy paragraph at the end of the second slide is more than ten words in length and forces the entire section of text below 24 points. By making the correction in step 2, you will comply with two important readability guidelines:

- You will be following the "Ten words or less" rule for bulleted items.
- PowerPoint will automatically adjust the text to increase the font size as words are removed.

2. Make the following adjustment to your slide show. Reduce the number of words in the final paragraph below the *Our purpose* bulleted item by deleting the entire paragraph and replacing it with these eight words:
Learn about the company and its TravelView teams.

3. Save these changes to your ***Orientation 1*** slide show, and, if possible, leave it open for the next activity.

LESSON 4-2 Adding Visual Appeal

IN THIS LESSON YOU WILL:

Objectives

1. Add graphics to presentations.
2. Apply the principles of accessibility & visual appeal to your presentation.
3. Insert themes, textures, and color schemes to a presentation.
4. Add visual appeal and explore the impact of color choices on presentations.

Key Terms

color schemes
sans serif font
serif font
themes

ADDING MULTIPLE MEDIA

INSTANT MESSAGE

If these tools do not appear on your slide, use the Insert tab as seen in Figure 4-4. You can choose to insert a Table, Picture, Clip Art, SmartArt, Media Clip, or Chart.

Pictures and multimedia add interest and focus attention toward what you are trying to say. They help add personality and style to a presentation. PowerPoint provides a very powerful tool that lets you add six types of media easily by clicking the buttons marked in Figure 4-9. This group of tools will appear in the middle of your slide input boxes.

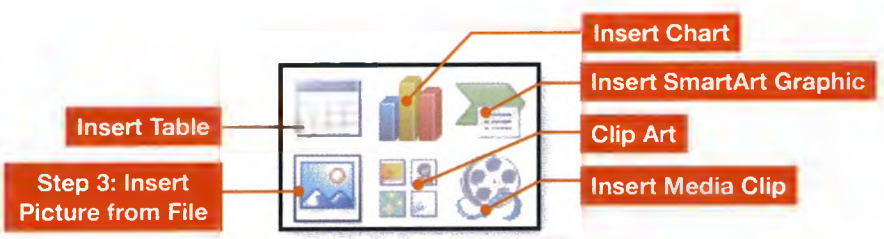


FIGURE 4-9 Multimedia Insertion Options

Activity 4-5 ADD A PICTURE

1. If necessary, start PowerPoint and open your ***Orientation 1*** slide show. One way to do this is to use the Recent Documents list:
   PowerPoint 2010: **File > Recent** and pick ***Orientation 1*** from the list.
   PowerPoint 2007: **Office** button and view the Recent Documents list. Pick ***Orientation 1*** from the list.
2. If necessary, move to your second slide by clicking or tapping it in the Slides pane as seen in Figure 4-10. (*Note:* You may also move between slides with the up and down arrow keys.)
3. Click the **Insert Picture from File** icon seen in Figure 4-9. (*Note:* You may also choose the **Insert** tab and then **Picture** as seen in Figure 4-10.)
4. Browse to your data files; then choose and insert the picture file called ***ski_lift***.
5. Resize your image by dragging the size handles in or out as needed so that it is approximately the same height as the text on the left as seen in Figure 4-10. If necessary, move the entire image by clicking it and dragging it into position, or use the arrow keys on your keyboard to move it left, right, up, or down.

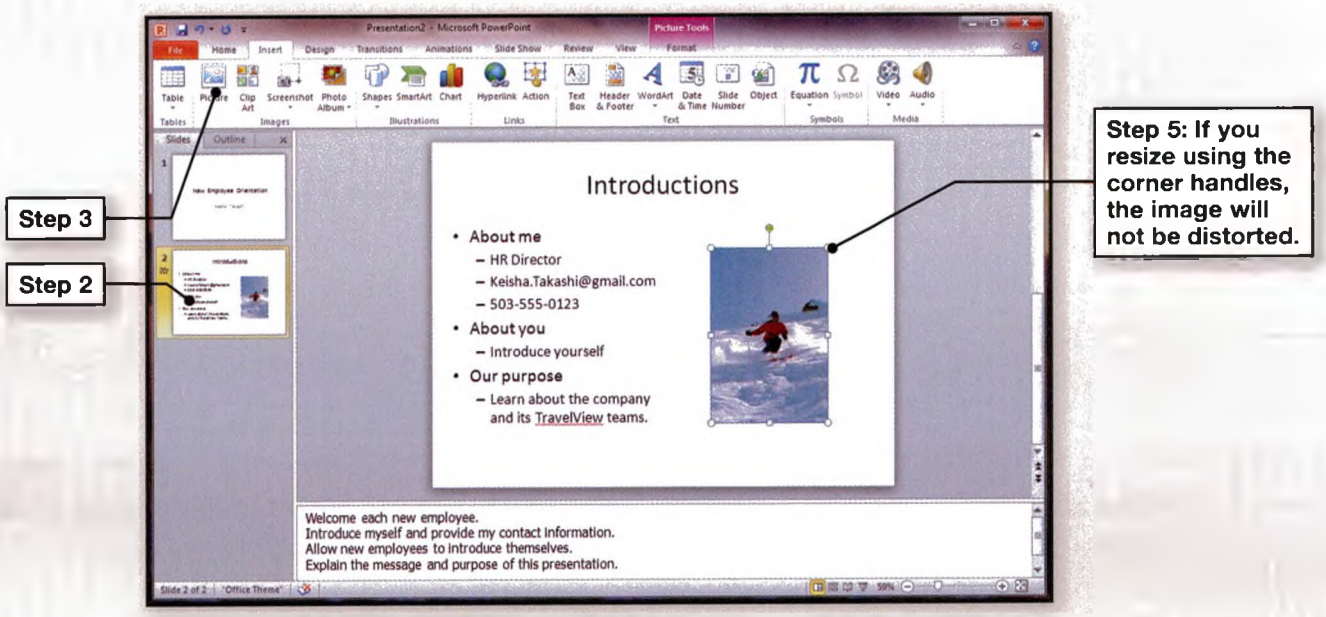


FIGURE 4-10 Picture Insertion

6. Save these changes to your ***Orientation 1*** slide show and leave the presentation open for Activity 4-7.

ACCESSIBILITY & VISUAL APPEAL

One of the goals of any digital communication is to make the most important information the most accessible or the easiest to find. Fortunately, PowerPoint does this almost automatically through its use of titles, outlines, lists, and other formatting options.

Now you must concentrate on making your slide shows visually appealing. PowerPoint makes it easy to apply attractive **themes, color schemes,** and styles to your presentation. Themes are stylized templates you can choose that professionals have created. Themes apply eye-catching techniques to your slides.

You can also choose from a variety of color schemes. Color schemes are collections of colors that complement each other. Learn more about color choices and eye-catching themes in the next activity.

Activity 4-6 PLANNING FOR THEMES AND COLORS

1. Open your note-taking software (Microsoft Word, WordPad, or another word processing application).
2. Open your browser and go to **www.cengage.com/schools/keyboarding/digitools**. Select the **Digitools 3rd Edition** cover. Then click or tap on the **Corporate View Intranet** link. (*Note:* You may also have a local copy of the Corporate View Intranet available. Ask your instructor for the location of this website.)
3. Choose **Corporate Communications**, followed by **Style Guide**. From the Style Guide list, choose **Presentations**. Choose **Color Choices** from the list.
4. Answer the following questions in your notes:
   - Reds and yellows are _____ like the sun, while greens and blues are _____ like water.
   - What is a background color?
   - What is a foreground color?
   - What are the advantages and disadvantages of using white or other bright colors?
   - What are the advantages and disadvantages of using black and other very dark colors?
   - _____ backgrounds are created by adding patterns of color to a background.
   - Explain the concept of complementary colors. Use examples.
   - Explain the concept of harmonious colors. Use examples.
   - What accommodations should be made for color blindness?
   - What are some of the problems that are created by high-contrast color choices?
5. Use **Back** to return to your list of presentation topics. Choose **Controlling Eye Movement with Lines**. Answer the following questions or fill in the blanks in your notes:
   - Name and explain the five basic lines or line patterns that can be used in electronic slide-show presentations.
   - Electronic slide shows usually emphasize _____ lines.
   - Compare and contrast the advantages and disadvantages of the five basic lines.
6. Save your notes as ***Activity 4-6*** in your ***Chapter 4*** solutions folder.
7. Close your note-taking software and your browser.

APPLY VISUAL APPEAL

There are two competing ideas on when to apply visual appeal to PowerPoint presentations. Both have their merits.

- One idea is to place all of your text on the slides first and then apply themes and color choices later.
- Another is to choose your theme early. This is based on the idea that each theme has different characteristics that will impact the number of words per slide and the size and placement of graphics.

In this chapter, you will take the second approach, starting with the next activity.

Activity 4-7 APPLY THEMES AND COLOR CHOICES

1. If necessary, start PowerPoint and open your ***Orientation 1*** slide show.
2. Click or tap the **Design** tab.
3. Choose the **More down** arrow on the right side of the *Themes* group to open the entire gallery as seen in Figure 4-11.
4. Hover over the themes in the Built-In section. Live Preview in PowerPoint will allow you to preview the theme in your slide as you hover over it.
5. Pick a theme that you believe will meet your line and eye movement goals. (Color choices will be modified in the next step.) In the example in Figure 4-11, the theme called Waveform was chosen.

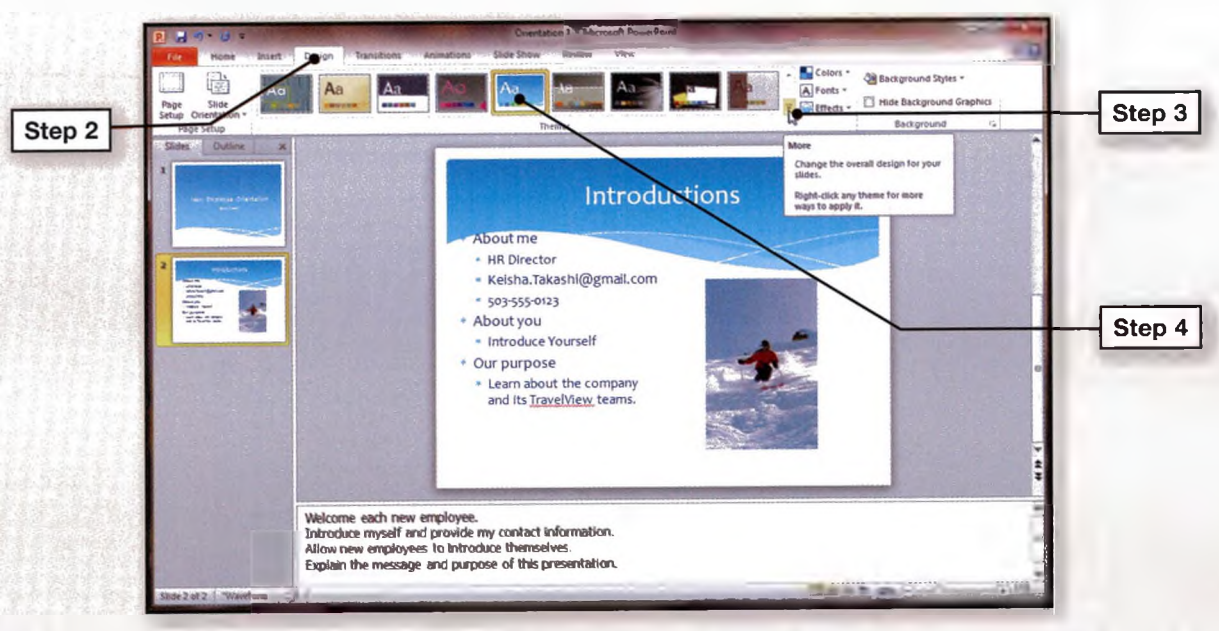


FIGURE 4-11 Theme Applied to Presentation

6. Choose **Colors** from the right side of the Themes group on the Ribbon. Apply what you have learned about color by choosing an appropriate color scheme from the list. In the example in Figure 4-12, a color scheme called Elemental has been chosen.

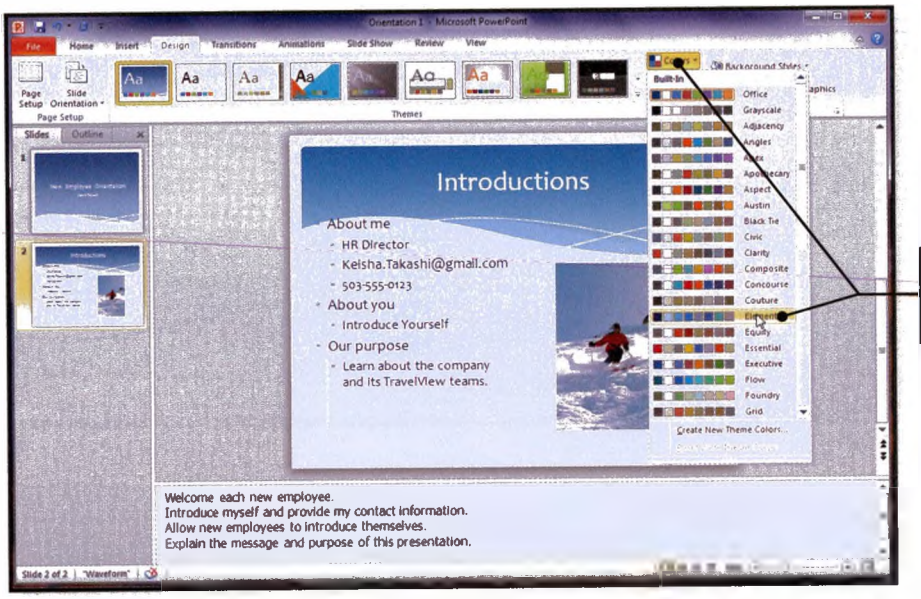
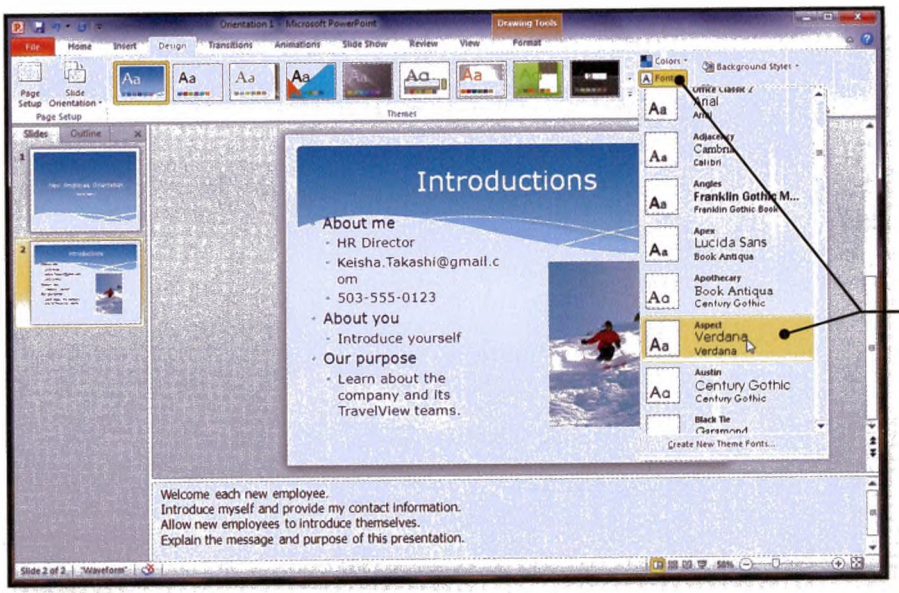


FIGURE 4-12
Color Scheme Options

Generally, sans serif fonts are more readable than serif fonts in projected presentations. Review these two font style options in *Digital Snapshot: Serif vs. Sans Serif Fonts* on page 131.

7. Choose **Fonts** from the *Themes* group, as shown in Figure 4-13. Scroll through the gallery of choices and apply a sans serif font for your slide show. In the example, Aspect, which uses the Verdana font, is selected.



INSTANT MESSAGE

The Background Styles feature will add textures to your slides.

FIGURE 4-13
Font Options

DigiTip

Often, when you change fonts, some of your text will not fit properly inside its text box. For example, in Figures 4-13 and 4-14, the e-mail address is too long for its text box. Also, the text box and the image may be too high or low for the design you are creating and needs to be shifted up, down, left, or right to improve the visual balance of the slide. Usually, only slight nudges are required. If necessary, fix these types of problems in the next two steps.

8. Click once on the text box to display the borders and drag handles. Click again directly on the text box's border and drag handle. When the two-sided arrow appears, drag the side of the text box out to accommodate the width of your text as seen in Figure 4-14.

9. Move the image or text box by clicking the element and then clicking and dragging it into position, or use the arrow keys on your keyboard to move it left, right, up, or down.

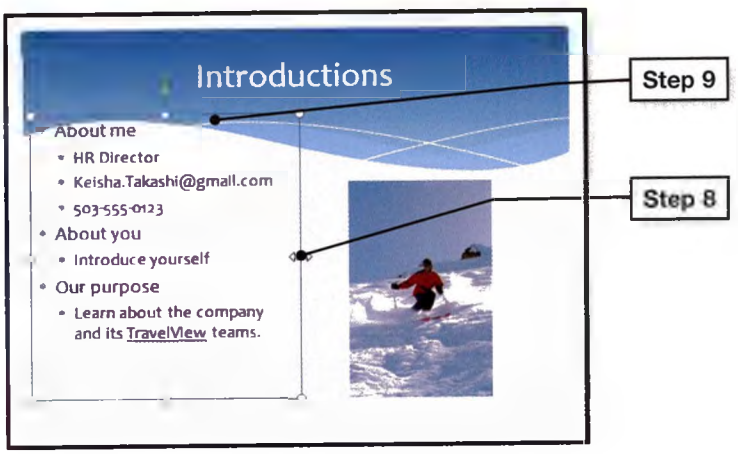


FIGURE 4-14
Moved and Resized Text Box

10. Choose **Background Styles** as marked in Figure 4-15. Apply an appropriate background style that meets your color-scheme, eye-movement, and color-value goals that you studied in previous activities. In the example, Style 9 is selected.

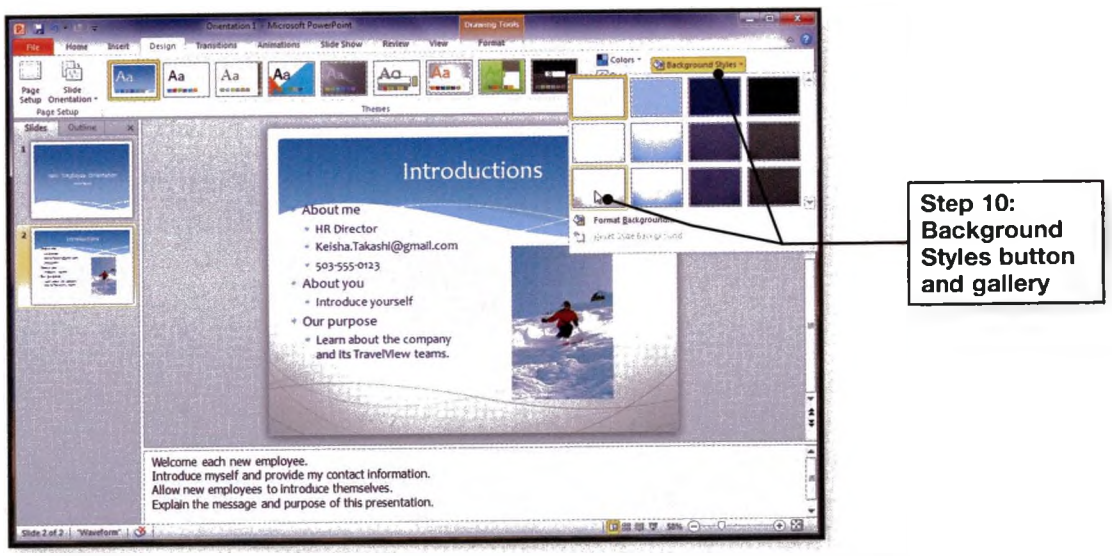


FIGURE 4-15
Background Texture Options

11. Save these changes to your ***Orientation 1*** slide show, and, if possible, leave it open for Activity 4-9.

DIGITAL SNAPSHOT

Serif vs. Sans Serif Fonts

Serif fonts (pronounced SARE IF) add decorative lines to characters. **Sans serif fonts** eliminate these lines. Examine these two samples:

Serif Sans Serif

Times New Roman is a popular serif font. Calibri is a popular sans serif font. Sans serif fonts are considered easier to read, especially online from a computer screen or projected to a large screen in a meeting room or convention center. Serif fonts are very popular for titles and also for formal documents. In published books and magazines, sometimes the first letter of the first word in a chapter or an article may appear larger and in a serif font followed by a sans serif font to grab a reader's attention. For example:

Four score and seven years ago...

LESSON 4-3 Researching, Taking Notes, And Planning

IN THIS LESSON YOU WILL:

Objectives

1. Apply research, note-taking, and planning skills to the development of a presentation.
2. Research your topic in more depth.
3. Storyboard a presentation applying the principle of general to specific planning.
4. Create new slides according to the storyboard plan.

Key Terms

storyboard

RESEARCH, TAKE NOTES, & PLAN

Clearly, you must learn something about your topic before you can create an effective presentation for a group of new, eager, anxious employees. In the next activity, you will be taking a few notes as you research your PowerPoint topic in more depth.

After you have completed your notes and research, you will have a chance to plan your presentation through the use of a **storyboard**. Storyboarding allows you to plan each slide carefully for maximum impact.

Activity 4-8 RESEARCHING YOUR CEO AND TRAVELVIEW

1. Open your note-taking software (Microsoft Word, WordPad, or another word processing application).
2. Open your browser and go to **www.cengage.com/schools/keyboarding/digitools**. Select the **Digitools 3rd Edition** cover. Then click or tap on the **Corporate View Intranet** link. (*Note:* You may also have a local copy of the Corporate View Intranet available. Ask your instructor for the location of this website.)

3. Click the **Regular Features** link. On the Regular Features page, choose **Update from the CEO**.

4. Take notes on the following, from the Web page shown in Figure 4-16:
   - Who is the president and CEO of Corporate View?
   - How many employees work for Corporate View?
   - Besides TravelView, name the other five strategic business units.
   - What is the slogan of Corporate View?
   - Scroll down to the bottom of the page. What does the Web page say about company performance?
   - Why does this CEO believe it is so important that employees use the corporate intranet?
   - What does this CEO have to say about the online Employee Handbook?



FIGURE 4-16
A CEO's Message

5. Scroll back up to the top page and choose the **TravelView** link. Then answer these questions in your notes:
   - How and why was TravelView created? Specifically, how did the Lodge come about? What benefits does the Lodge give the company?
   - For what is the Lodge a great location?
   - From where did the architects and designers take their inspiration?
   - What are some of the winter and summer activities available at the Lodge and its surrounding property?
   - How did the travel agency, CV Travel Partners, come into being? What are the benefits to the company of owning its own travel agency?

6. Scroll to and click the **Organizational Chart** link. List the three teams marked in Figure 4-17 in your notes.

INSTANT MESSAGE

To get to the TravelView page, you may also select the CorpView Divisions link on the navigation bar. Then you can select the TravelView link from the list on the page.

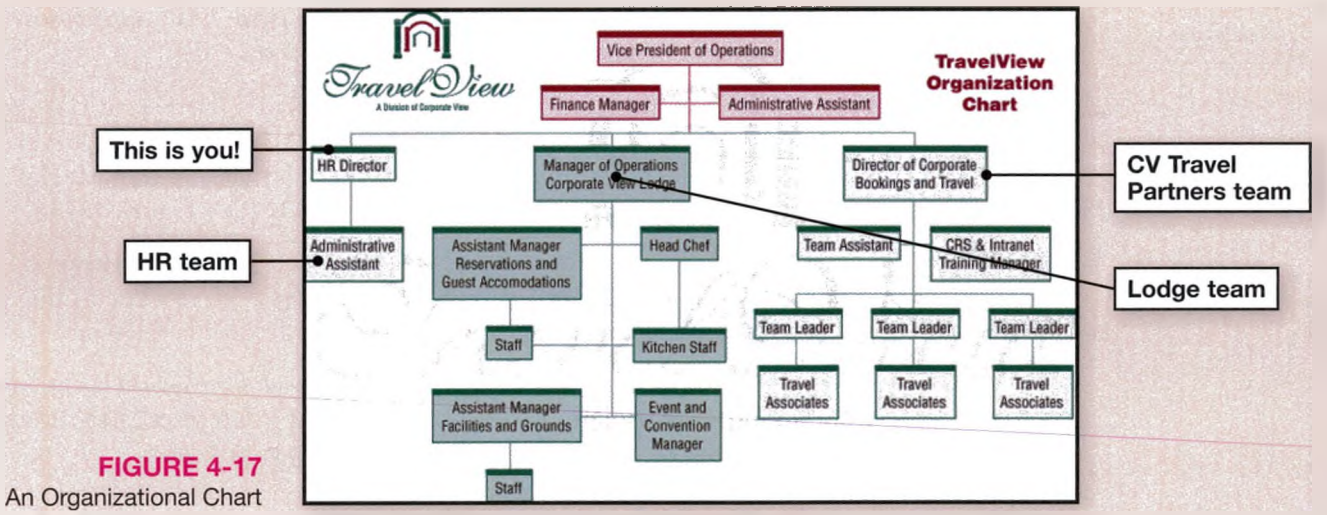


FIGURE 4-17
An Organizational Chart

7. Save your notes as ***Activity 4-8*** in your ***Chapter 4*** solutions folder.
8. Close your browser and your note-taking software.

STORYBOARDING FROM GENERAL TO SPECIFIC

Grab the attention of your audience by creating a general overview at the beginning of the presentation and adding more specific information toward the end. In other words, when creating your talking points about a company as big as Corporate View, it is best to start at the top and work your way down.

- Start with the president and CEO Madeline Tucker, and talk about the parent company Corporate View.
- Move your way down, and talk about the smaller TravelView division.
- As you get more specific, you will want to talk about TravelView's Lodge and its travel agency, CV (Corporate View) Travel Partners.

A storyboard is a great way to plan any presentation. It gives you a chance to outline the content of each slide before you begin. You can create a storyboard by hand using pencil and paper. Traditionally, storyboards were used to plan movies and animated films, with drawings being hung up in order around a big planning room. You can also create a storyboard in a word processing table (see Chapter 5) or in a spreadsheet (see Chapter 6). In this exercise, we created one for you in Table 4-2. The components include:

Slide #:	Number of each slide
Completion Status:	Mark "Complete" when the slide is finished
Slide Title:	Possible title of the slide
Slide Content/Talking Points:	First draft of slide's content
Graphics:	Possible picture for each slide. (In this case, the graphics for the presentation can be found in your data files.)

INSTANT MESSAGE

Review *Digital Snapshot: Talking Points* to understand the concept of bulleted talking points.

TABLE 4-2 Storyboard

Slide #	Completion Status	Slide Title Slide Content/Talking Points	Graphics
Slide 1	Complete	**New Employee Orientation**	None
		Your Name	
Slide 2	Complete	**Introduction**	***ski_lift***
		Introduction Slide. Talking Points:	
		Your contact information	
		About you	
		Our purpose	
Slide 3		**About Corporate View**	***ceo***
		Slide introducing Corporate View. Talking Points:	
		CEO, Madeline Tucker	
		29,000 employees	
		Strategic Business Units	
		TeleView	
		RetailView	
		MoneyView	
		MediView	
		PublishView	
		TravelView	
Slide 4		**Company Performance**	***performance***
		Slide presenting company and products. Talking Points:	
		The company slogan	
		Company performance	
		New products	
		Ultra Mobile Video Phone	
		ZapSmart SmartPhone with digital camera	
Slide 5		**TravelView Teams**	***org_chart***
		Slide introducing TeleView's teams. Talking Points:	
		Human Resources Team	
		Travel Agency Team	
		Lodge Team	
Slide 6		**TravelView Lodge**	***lodge***
		Slide talking about the lodge. Talking Points:	
		Reconstructed in 1997	
		Saves company money	
		Used for training and leadership activities	
		Many recreational activities available	

(continued)

TABLE 4-2 continued

Slide #	Completion Status	Slide Title Slide Content/Talking Points	Graphics
Slide 7		**TravelView Activities**	*1_skilift* *2_skate* *3_golf* *4_canoe* *5_bike* *6_kayak* *7_fish*
		Slide presenting possible winter and summer activities. Talking Points: Ski and Snowboard Skate Golf Canoe Bike Kayak Fishing	
Slide 8		**CV Travel Partners**	*CVTravel*
		Slide presenting information about CV Travel Partners. Talking Points: Reduces company travel costs by 1/3 Corporate View is our biggest customer Always adding new corporate clients Known for quality service	

In the following activity, you will use your own creativity and imagination to produce the six new slides outlined in the storyboard shown in Table 4-2. Remember the following:

- Write the best possible bulleted talking points introducing Corporate View and the TravelView teams to a group of new employees.
- Keep each slide simple. Just a few words will trigger your thoughts so you can talk about each topic. (Review *Digital Snapshot: Talking Points*.)
- Key notes for each slide to remind yourself of what you want to say.
- Possible graphics have been listed in Table 4-2. They can be found in the data files for this chapter. Use at least three graphics in your PowerPoint presentation.

Activity 4-9 ADD NEW SLIDES

1. If necessary, start PowerPoint and open your ***Orientation 1*** slide show.
2. Make sure you click or tap your second slide before you add a new slide. This will ensure that the new slide will appear below your first two slides.
3. *Create slide 3.* Choose **New Slide** down arrow from the Home tab. Choose the slide style that you think will best fit the talking points you wish to present. Then:
   - Use the title **About Corporate View**.
   - Use talking points similar to those described in the storyboard (about the CEO of Corporate View) in Table 4-2.

INSTANT MESSAGE

Use the skills you learned in Chapter 2 on how to copy and save images from the Internet. Because all the images at the Corporate View website are copyright-free, you can copy and use them in your PowerPoint show.

INSTANT MESSAGE

If you start a slide and it goes all wrong, you can delete it and start over. Choose the slide in the Slides pane and tap the Delete key.

- Use a picture of the CEO. (The file ***ceo*** is found in your data files.)
- Enter your notes/script in the Notes pane so you know what you will say when the slide appears.

4. *Create slide 4.* Choose **New Slide** and select a slide style from the gallery. Create slide 4 using the talking points defined in the storyboard in Table 4-2. Use the title **Company Performance**. A graphic called ***performance*** can be found in your data files. Key your notes/script in the Notes pane.
5. *Create slide 5.* Create slide 5 using the talking points defined in the storyboard in Table 4-2. Use the title **TravelView Teams**. (A graphic called ***org_chart*** can be found in your data files.) Key your notes/script in the Notes pane.
6. *Create slide 6.* Create slide 6 using the talking points defined in the storyboard in Table 4-2. Use the title **TravelView Lodge**. (A picture called ***lodge*** can be found in your data files.) Key your notes/script in the Notes pane.
7. *Create slide 7.* Create slide 7 using the talking points defined in the storyboard in Table 4-2. Use the title **TravelView Activities**. You may want to use SmartArt for this slide. See the following *Digital Snapshot: Smart Art*. (*Note:* A list of possible pictures can be found in Table 4-2. Each picture is located in your data files.) Key your notes/script in the Notes pane.
8. *Create slide 8.* Create slide 8 using the talking points defined in the storyboard in Table 4-2. Use the title **CV Travel Partners**. (*Note:* A possible picture called ***CVTravel*** can be found in your data files.) Key your notes/script in the Notes pane.
9. Save these changes to your ***Orientation 1*** presentation, and, if possible, leave it open for Activity 4-10.

DIGITAL SNAPSHOT — SmartArt

SmartArt is a quick way to insert several pictures and text in an attractive way. Any color scheme you have selected will be adopted by SmartArt automatically. Follow these steps.

1. Choose the Insert SmartArt Graphic icon (marked in Figure 4-9), or choose the SmartArt icon from the Insert tab's *Illustrations* group. This opens the Choose a SmartArt Graphic dialog box.
2. Choose a SmartArt option from the gallery as seen in Digital Snapshot 4.1, and then click **OK**.
3. In your slide, choose the Picture icon within a SmartArt box to insert a picture.

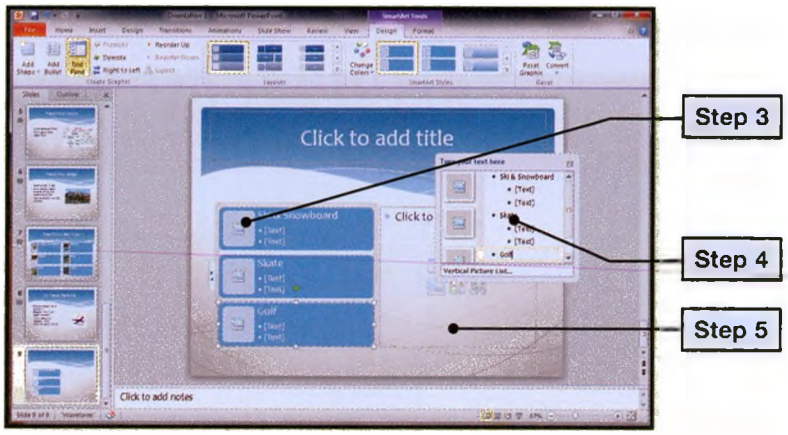


DIGITAL SNAPSHOT 4.1
SmartArt Style Gallery

(continued)

4. In the text input area, label each picture next to its bullet. Delete any Text menu items that are not needed between bullets as marked in Digital Snapshot 4.2.

5. Click on your slide when you are finished entering text and pictures.



DIGITAL SNAPSHOT 4.2
SmartArt Graphics

LESSON 4-4 Polishing Your Presentation Skills

IN THIS LESSON YOU WILL

Objectives

1. Apply the principles of proofing & accuracy as you play a presentation.
2. Reorganize slides.
3. Apply transitions.
4. Play slides continuously and learn to control the timing of the slides.
5. Narrate a presentation.
6. Apply the principles of style & personality while presenting.

Key Terms

cut transition
dissolve transition
fade transition
split transition
transitions
voiceover
wipe transition

PLAY AND PROOFREAD YOUR SHOW

INSTANT MESSAGE

PowerPoint has spelling and grammar correction tools built into every slide. If you see a word or passage that has red or green squiggly lines, right-click to expose the corrections.

Make sure your presentation is accurate and free from grammatical and spelling errors. Believe it or not, one spelling mistake can undo an entire presentation. Some presenters have had members of their audience start snickering when they see misspelled words on a slide. Poor grammar can have the same negative impact. Proofread your presentations carefully.

Also, play your slide show full-screen, the way your audience will see it. There will be little mistakes you can catch only by playing the slide show. For example, you may have a graphic that is too large, is too small, or is in the wrong position. You may see that you have too many words on a slide or that the position of those words makes them hard to read. In the next activity, play your slide show from the beginning and analyze each slide, making sure it is picture-perfect.

Activity 4-10 PICTURE-PERFECT SLIDES

1. If necessary, open your ***Orientation 1*** slide show.
2. Choose the **Slide Show** tab and **From Beginning** in the *Start Slide Show* group on the Ribbon.
3. Move forward by tapping either the Space Bar or the forward arrow key or by clicking on the slide. Move backward by tapping the backward arrow key.



When you find a mistake, tap the **Esc** key to make the correction in the normal slide show creation window. Then choose **From Current Slide** in the *Start Slide Show* group to continue viewing and editing your slides.

4. Carefully scrutinize each slide, looking for errors.
5. Save any changes to your ***Orientation 1*** slide show, and leave it open for the next activity.

IN PERFECT ORDER

As you view your slide show, you may decide to move slides around to make your presentation more interesting. For example, it may be best to end your slide show with the specific activities that employees can participate in while working at TravelView.

PowerPoint has a Slide Sorter View that will allow you to view and rearrange a large number of slides (see Figure 4-18). Use this view to easily reorder your slides.

Activity 4-11 REORGANIZE SLIDES IN THE SLIDE SORTER

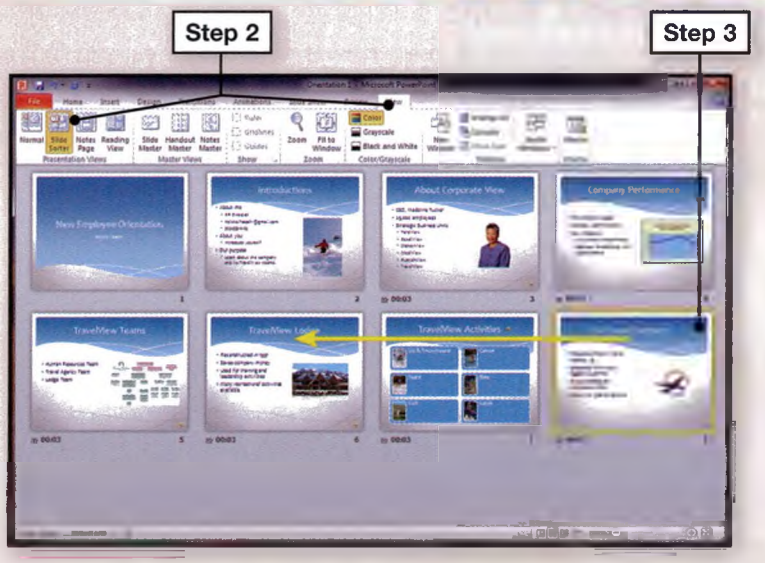


FIGURE 4-18 Slide Sorter View

1. If necessary, open your ***Orientation 1*** slide show.
2. Choose the **View** tab followed by **Slide Sorter** in the *Presentation Views* group.
3. Choose the **CV Travel Partners** slide (slide number 8) by clicking on it; then click and drag it over two slides so it is now slide 6, as seen in Figure 4-18.
4. Save the changes you have made to your ***Orientation 1*** presentation, and leave it open for Activity 4-13.

TRICKY TRANSITIONS

Transitions help one slide move into another slide in an interesting way. Transitions have been used on television and in the movies for years. You see them all the time, although you may not be aware of them. Transitions add visual interest and focus audience attention on the next scene.

One day, when you are watching your favorite movie or TV show, watch how moviemakers transition from one scene to the next. Read more about transition techniques in the next activity.

Activity 4-12 RESEARCH TRANSITIONS

1. Open your note-taking software (Microsoft Word, WordPad, or another word processing application).
2. Open your browser and go to **www.cengage.com/school/keyboarding/digitools**. Then click or tap on the **Corporate View Intranet** link. (*Note:* You may also have a local copy of the Corporate View intranet available. Ask your instructor for the location of this website.)
3. Choose **Corporate Communications**, followed by **Style Guide**. From the Style Guide list, choose **Presentations**. Then choose **Transitions and Special Effects** from the list.
4. Answer the following questions in your note-taking software:
   - What is a transition, and why should you use them in your PowerPoint show?
   - Describe a **cut**.
   - Describe a **dissolve**.
   - Describe a **fade**.
   - Describe a **split**.
   - Describe a **wipe**.
   - Why is it not a good idea to use many different transitions in any one presentation?
5. Save your notes as ***Activity 4-12*** in your ***Chapter 4*** solutions folder.
6. Close your note-taking application and your browser.

Activity 4-13 ADD TRANSITIONS TO YOUR SLIDE SHOW

1. Open your ***Orientation 1*** slide show, and make sure you are in the Slide Sorter View. (See Activity 4-11 to recall how to switch to the Slide Sorter View.) Click or tap the first slide.
2. To see your transition options:
   PowerPoint 2010: Choose the **Transitions** tab followed by the *Transition to This Slide* group's **More** arrow to show all the transition options in the gallery as seen in Figure 4-19.

PowerPoint 2007: Choose the **Animations** tab followed by the *Transition to This Slide* group's **More** arrow to show all the transition options in the gallery.

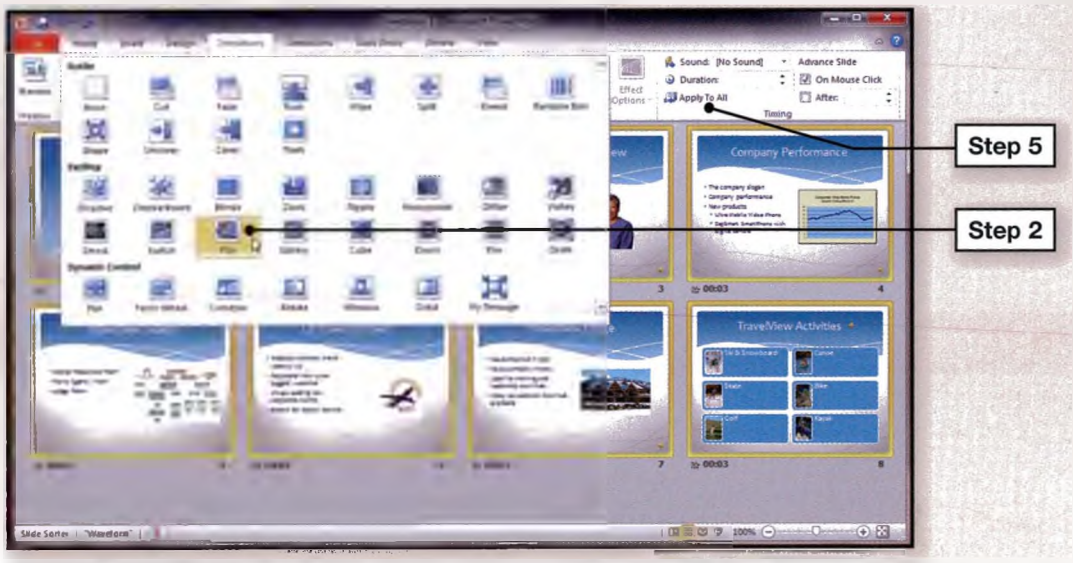


FIGURE 4-19
Transitions Gallery

3. Experiment! Apply a different transition style to each of your slides.
4. View your slide show. Observe your transitions. Which transition choice do you think best fits your slide show?
5. Choose the transition option you believe will work best for your slide show. To apply this transition to each slide, use **Apply to All** found in the *Timing* group.
6. Save the changes you have made to your ***Orientation 1*** presentation. Leave this presentation open for the next activity.

AUTOMATIC AND CONTINUOUS PLAY

There are times when you will want a slide show to play continuously and repeat over and over again. This is often done at trade show booths or benefit fairs where slide shows play continuously to attract the attention of passersby. You can make this happen with a minimum of fuss by following the steps in the next activity.

Activity 4-14 PLAY AWAY

INSTANT MESSAGE

Esc is short for *escape*. When you see "Tap Esc," tap the Esc key.

1. If necessary, open your ***Orientation 1*** slide show, and make sure you are in the Slide Sorter View. Click or tap the first slide.
2. Choose the **Slide Show** tab followed by **Rehearsal Timings** in the *Set Up* group.
3. As each slide appears, watch the little counter in the top left-hand corner of the screen. (See Figure 4-20.) This will help you time how long each slide remains before a new slide begins. For this first practice round, tap your Space Bar as it reaches two to three seconds on each slide.

5. Repeat the process of recording your narration for your slide show. Use your notes. Practice what you want to say for each talking point.
6. After you are satisfied with your narration, save your changes as ***Orientation 2 With Narration*** in your ***Chapter 4*** solutions folder.
7. Close PowerPoint.

PRESENT WITH STYLE & PERSONALITY

At some point, the time for preparation is over and it is time to present. But before you do, decide the personality and style you will use. Should you be formal or informal? Should you be "buddy buddy" with the new employees or act like their boss? You will need to pick a style and personality that best fits you and your presentation.

Next, consider these pre-presentation tips:

- Dress appropriately for the audience and for the presentation you are about to give.
- Think about the configuration of the presentation room. Try to find a place to stand that will not prevent your audience from seeing the slides, but where you also remain the focal point of the presentation.
- If you can, use a remote control to advance the slides. This will allow you to move around the room and relate more closely with your audience.
- Adjust the audience seating so each person can see the presentation clearly.
- Adjust the lighting in the room. The room should be dark enough so the projected presentation is easy to see, but not so dim as to leave you standing in the dark.

Finally, as you present, remember these tips:

- Make eye contact with your audience. Try to judge their reaction and adjust to their needs.
- Use a confident, strong voice when you speak. Do not rush, shout, or whisper. Speak clearly without hesitations or breaks or the use of hesitation words such as '*and uh*,' '*like*,' and '*you know*.'
- Watch your posture. Stand up straight, do not shuffle your feet, appear confident, and do your best.

Activity 4-16 PRACTICE YOUR PRESENTATION SKILLS

1. Present your PowerPoint show to your instructor or your team.
2. Apply the principles of style & personality as you deliver your new employee orientation overview.



FIGURE 4-20
Recording Dialog Box

4. After you have looped through all of the slides and tapped the Space Bar on the last screen, a dialog box will appear giving the total time for the slide show and asking if you want to save these timings. Click **Yes**.
5. Play your slide show from the beginning by selecting **From Beginning** from the *Start Slide Show* group. Your show should play itself, with each transition coming approximately every few seconds. Use this mode to determine whether your transitions and slides are working properly.
6. Repeat the process of rehearsing the timings of your slide show. This time, allow enough time for an average person to read each slide before moving on to the next one.
7. Save the changes you have made to your ***Orientation 1*** presentation, and leave it open for the next activity.

RECORDING YOUR SLIDE SHOW

INSTANT MESSAGE

Use your notes and your personality to narrate an exciting presentation. This is called a **voiceover.**

You can record your voice to a slide show with the use of a microphone. This is a great way to practice delivering your presentation. It will give you a chance to rehearse your presentation before you have to deliver it.

The recording process is similar to rehearsing the timings of your slides, as you did in the previous exercise. After you record your comments for each bulleted talking point on a slide, tap the Space Bar to move to the next slide. Timings will be adjusted based on how much you record on each slide.

Activity 4-15 RECORDING YOUR PRESENTATION



FIGURE 4-21 Start Recording from Beginning Button



FIGURE 4-22 Record Slide Show Dialog Box

1. If necessary, open your ***Orientation 1*** slide show, and make sure you are in the Slide Sorter View. Click or tap the first slide.
2. Choose the **Slide Show** tab and look in the *Set Up* group. To record:
   PowerPoint 2010: Click the down arrow on the **Record Slide Show** button. Pick **Start Recording from Beginning** as seen in Figure 4-21.
   PowerPoint 2007: When the Record Narration dialog box appears, choose **Set Microphone Level**, test your headset, and then choose **OK**. Start recording. After you have completed your voiceover, click **Save**.
3. Place a check mark next to both *Slide and animation timings* and *Narrations and laser pointer* as seen in Figure 4-22. Click **Start Recording** and start recording! Tap the Space Bar to move to the next slide. Do not record during transitions, but wait for the full slide to appear.
4. Play your slide show from the beginning, and listen to your narration. How does your voiceover sound? Is there anything you would change? Are you ready to talk about these topics?

DIGITAL SNAPSHOT

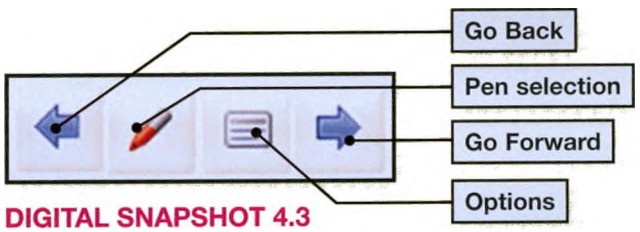
Presenting with Pen Tools, Clickers, and Speaker Notes

If you have the right kind of projector, you can use the speaker notes view in PowerPoint. The speaker notes feature allows you to see your notes along with your presentation as you speak. However, your audience will see only the slides and not know you are using your notes as a cheat sheet. Learn how to enable the speaker notes feature by clicking the Help button (look for the question mark in the top right-hand corner of PowerPoint) and keying *speaker notes* as a search query, just like you would if you were searching with Google or Bing.

Also, many presenters like to use a clicker, which is a mobile device that allows you to stand anywhere in a room and still advance your slides.

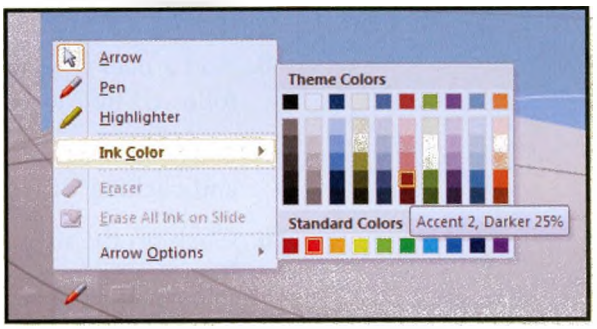
Presenters who do not have clickers must use their keyboard's arrow keys or Space Bar to advance PowerPoint slides. However, keyboards are often unavailable with tablet PCs and ultra-mobile computers. Another way had to be devised to run the PowerPoint shows directly from a computer screen using a digital pen. Happily, this is not very hard to do.

A small toolbar has been added to the PowerPoint screen. It is invisible unless you hover your digital pen (or a mouse) over the bottom left-hand corner of your presentation. The toolbar presents four buttons marked in Digital Snapshot 4.3. To advance a slide, choose **Go Forward**. To go back a slide or two, tap or double-tap **Go Back**.



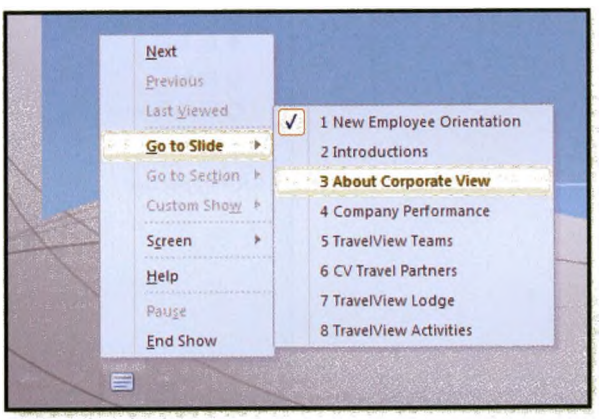
DIGITAL SNAPSHOT 4.3
Pen Presentation Toolbar

Another handy feature is the ability to draw on your slides with digital ink while you are giving a presentation. This is an effective technique to help focus the attention of your audience on specific talking points. Simply choose the Pen, pick a pen color, and start drawing. (See Digital Snapshot 4.4.) After you have finished delivering your slide show, you will be asked to save your handwritten markings or discard them.



DIGITAL SNAPSHOT 4.4 Pen Color Options

The Options button in the on-screen toolbar gives you many choices as seen in Digital Snapshot 4.5. You can jump around from one slide to the next in any order by using the Go to Slide command. This is very handy if you decide in the middle of a presentation that you need to repeat something. Finally, you can escape and end your slide show from the same Options button by choosing End Show.



DIGITAL SNAPSHOT 4.5 Options Menus

INTO THE CLOUD

Online Presentations

You are flying to give an important presentation to a new client. You have prepared for weeks. Then disaster strikes. Your hotel valet, who did not see your bags sitting on the side of the curb, runs over your computer with the rental car. Smash! All of your hard work—destroyed.

Okay. This might be an extreme example, but the best-laid plans can go wrong. Laptops get lost, hard drives crash, files get saved improperly. It happens.

In addition, why should you have to lug your computer to a presentation? Why not use any available computer to show your presentation? Now you can. By saving your presentations in the cloud, you can deliver your presentation on time and as needed...

- From any computer ...
- At any time ...
- From anywhere in the world!

Google provided the first large-scale implementation of free online presentation storage in Google Docs. People loved it! All they had to do was log into their Gmail or Docs account from anywhere, and they could open their presentations and deliver them to their audience. The Google Docs approach was too cool, too convenient, and too safe to be ignored. So Microsoft was forced to respond, and it did with PowerPoint 2010. Now you can store all your presentations in the cloud so you can present from any computer whenever necessary. (We'll show you how to do this in Chapter 14.)

Discussion:

What advantages are there to you, as a student, to save and run your presentations from the cloud?

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 4-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools*.

Building Up: Your Math Skills

Exercise 4-2 CALCULATING CURRENCY CONVERSIONS

You work in the Finance Department at TravelView. Your team must work with many foreign companies and visitors. In addition, you must fund corporate travel abroad, so you need to know how to convert the dollar into the currencies of the world.

In this exercise, you will convert the foreign currency amounts into U.S. dollars so travel plans can be made. Refer to the chart below to find the exchange rate.

Example: 100 Canadian dollars × .6273 = 62.73 U.S. dollars

Convert the following currency amounts to U.S. dollars. Round U.S. dollar amounts up to the nearest whole cent. Save your work as ***Exercise 4-2***.

1. 1,453 euros
2. 1,254,000 Japanese yen
3. 2,983 Australian dollars
4. 3,289.56 Canadian dollars
5. 10,429.39 Great Britain pounds

Sample Currency Exchange Rates

Base Currency	Exchange Rates for U.S. Dollars
Euro	0.8837
Canadian dollars	0.6273
Australian dollars	0.5224
Great Britain pounds	1.4155
Japanese yen	0.0081

Exercise 4-3 GO ONLINE AND FIND OUT WHAT THE CURRENCY RATES ARE TODAY

1. Currency rates change every day. Go online and find out what the exchange rate is against the U.S. dollar for each of the following world currencies.

   Euro

   Japanese yen

   Canadian dollar

   Mexican peso

   Indian rupee

   Chinese yuan

   Brazilian real

2. Save a listing of today's currency rates as ***Exercise 4-3***.

Building Up: Your Language Arts Skills

Exercise 4-4 FROM THE EDITOR'S DESK: CONFUSING USAGE

1. Open your browser software. Use the bookmark on your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications > From the Editor's Desk**.)
2. Choose the **Confusing Usage** link. Under *Confusing Usage*, choose the **Asking Questions: What, Who, When, Where, How** link. Copy and paste the questions to a word processing document and answer the questions. (Read any additional information provided on the Web page, and follow the directions for completing the practice exercise.)
3. Check your answers by comparing them with the answers on the bottom of the intranet page.
4. Save your work in your ***Chapter 4*** folder as ***Exercise 4-4 Asking Questions***.

Career Clusters



Hospitality & Tourism

Some careers help people enjoy their leisure time. These careers, generally referred to as hospitality and tourism, can take you anywhere in the world, which can be both rewarding and exciting. You may work for an amusement park in Orlando; a cruise ship in the Caribbean; or a ski lodge in Solitude, Utah.

Restaurants are a big part of the hospitality industry. Over 10 million people are in the food preparation industry in the United States alone. Millions more work for hotels and recreational facilities including spas, golf courses, and amusement parks.

Review a variety of jobs and their potential salaries in Table 4-3 below. In the exercise to follow, you will have a chance to explore jobs in the hospitality and tourism industry.

Position and Yearly Salary		Position and Yearly Salary	
Housekeeping Cleaner	$21,000	Building Cleaning Worker	$22,910
Groundskeeper	$27,560	Hotel Resort Clerk	$17,640
Chef	$30,680	Waiter or Waitress	$14,040
Fast-Food Cook	$14,705	Dishwasher	$15,080
Food Service Manager	$39,610	Amusement and Recreation Attendant	$15,970
Tour Guide	$20,340	Flight Attendant	$43,440
Travel Coordinator	$44,500	Housekeeping Manager	$29,500
Lodging Manager	$36,820	Hotel Desk Clerk	$17,700
Host or Hostess	$15,641	Maids & Housekeepers	$18,770

TABLE 4-3 Career Cluster: Hospitality and Tourism

Exercise 4-5 RESEARCH JOBS IN HOSPITALITY AND TOURISM

1. Choose a large company in the hospitality and tourism business. Search the Web for companies or use one listed here:
   Universal Studios Theme Parks (www.universalstudios.com)
   Disney Corporation (www.disney.com)
   Six Flags Theme Parks (www.sixflags.com)
   Marriott Hotels (www.marriott.com)
   Hilton Hotels (www.hilton.com)
   Wendy's Restaurant (www.wendys.com)
   AAA (American Automobile Association) (www.aaa.com)
2. Visit the website for the company you choose. Look for career opportunities by following links such as *Careers*, *Employment*, or *Jobs*. These links may appear in small print at the top or bottom of the Web page.
3. Locate a job opening at one company. List the following information about the job:
   Company or organization name
   Job or position title
   Location of the job
   Brief description of the job
   Salary and benefits (if given)

Educational or experience requirements for the job

Instructions for applying for the job (online, by telephone or fax, in person)

4. Save your list as ***Exercise 4-5*** in your ***Chapter 4*** folder.

21st-Century Skills

Teamwork Communication Skills

Teamwork is always a good idea, especially when there are many issues to research. In the next series of activities, you and your team will create a PowerPoint slide about a few important human resource (HR) policies and benefits. Policies are rules employees must follow. Also, companies provide benefits for their employees beyond just salary and income. This is your chance to research all of these important benefits and policies.

Does all of this sound difficult? It is not if you employ teamwork. Work with your team to divide up your topics, research them together, storyboard as a team, create your slides, and share your work. You will also be able to present as a team!

Exercise 4-6 POLICIES AND PROCEDURES WITH POWERPOINT



INSTANT MESSAGE

You can also reach the *Employee Handbook* by clicking a link in the middle of the CEO's update Web page that you saw in Activity 4-8.

1. Create a new slide show. The title slide of this presentation will be:
   Policies and Benefits
2. As a team, divide up the following seven topics. They can be found by going to the Corporate View intranet. Open your browser and go to **www.cengage.com/school/keyboarding/digitools**. Then click or tap on the **Corporate View Intranet** link. (*Note:* Your instructor may also have a local copy of the Corporate View intranet available. Ask your instructor for the location of this website.) Once at the intranet site, choose the **Regular Features** link followed by **Employee Handbook**.
   Attendance
   Drug and Alcohol Policy
   Equal Opportunity Employment
   Harassment Policy
   Progressive Discipline
   Travel
   Work-Related Injury
3. Have each team member research his or her topic or topics and take notes. Each team member must become an expert in the topics he or she has been assigned.
4. Have each team member storyboard his or her slides, titles, and talking points for the topics assigned. Also, have each team member research possible pictures, such as clip art and other images, that can be used to enhance the presentation.

5. Get together with your team, and compile a storyboard. Decide on your theme, color schemes, textures, graphics, and anything else the team needs to make a PowerPoint presentation as effective as possible. Then assign the creation of the slides for the presentation.

6. Save the completed PowerPoint show as ***Team Project 1***. Make sure every team member has a copy and places it in his or her ***Chapter 4*** solutions folder. Leave PowerPoint and this presentation open for the next activity.

The Benefits of Teamwork

Meet with your team again. Now that you have learned to work together on the policies portion of the slide show, dig in and tackle the *Employee Benefits* section of the presentation. Employee benefits include such things as healthcare benefits, retirement plans, vacations, and paid time off (PTO). You will learn more about benefits in this activity.

Exercise 4-7 BENEFITING WITH POWERPOINT



1. Divide up this list of 16 topics from the *Compensation and Employee Benefits* section of the Employee Handbook. The topics that need researching are as follows:

   401(k) Plan
   Bereavement Leave
   Employee Referral Bonus
   Family Medical Leave
   Flexible Spending Account
   Health Care Benefits
   Holidays
   Jury Duty
   Overtime
   Paid Time Off (PTO)
   Performance/Salary Reviews
   Personal Days
   Sick Leave
   Social Security (FICA)
   Worker's Compensation
   Sick Leave

These can be found by going to the Corporate View intranet. Open your browser and go to **www.cengage.com/school/keyboarding/digitools**. Then click or tap on the **Corporate View Intranet** link. (*Note:* Your instructor may also have a local copy of the Corporate View intranet available. Ask your instructor for the location of this website.) Once at the intranet site, choose the **Regular Features** link, select **Employee Handbook**, and choose the **Compensation and Employee Benefits** link.

2. Have each team member research his or her topics and take notes. Each team member must become an expert in the employee benefits assigned.
3. Have each team member storyboard his or her slides, titles, and talking points for the employee benefits assigned. Also have each team member research possible pictures, such as clip art and other images, that can be used to enhance the presentation.
4. If necessary, open your ***Team Project 1*** file. As a team, add the new information to the end of your current PowerPoint project. This will add at least an additional 16 slides to your presentation. Proofread the slide show and make sure it runs smoothly.
5. Add transitions and any special effects that you believe will enhance your presentation.
6. Save this PowerPoint show as ***Team Project 2***. Make sure every team member has a copy and places it in his or her ***Chapter 4*** solutions folder.

Exercise 4-8 PRACTICE YOUR TEAM'S PRESENTATION



1. Present your team's PowerPoint show to your instructor or to another team. Divide up the slides, and have each team member present a portion of the information. Apply the principles of style and personality as you deliver your new presentation.
2. Close the presentation, but leave PowerPoint open for the next activity.

Creativity and Exploration Practice Makes Better PowerPoints

In Chapter 17, you will prepare a personal "career search" PowerPoint. This special presentation will highlight your skills, experience, abilities, and achievements for a potential employer. How will you be able to create such a high-impact PowerPoint show? This lesson was designed to help you do just that.

In this final exercise, you will practice using PowerPoint. This is your chance to try any features you wish that can improve the appeal of your slide shows. You can add animation, create new types of transitions, and experiment with themes and color choices.

As you proceed, just remember this bit of advice: PowerPoint presentations should deliver important talking points and not rely on overpowering graphics in glitzy gimmicks. Your graphics should be attractive, not distracting. Be judicious in your use of multimedia effects, sound effects, audio and video clips, color, and clip art.

Exercise 4-9 PLAYING WITH POWERPOINT

INSTANT MESSAGE

Proofread your slide show for readability, spelling, and grammar.

1. Pick a topic of personal interest with the approval of your instructor.
2. Prepare a five- to ten-minute PowerPoint show on this topic.
3. Save your final project as ***Personal Project 1*** in your ***Chapter 4*** solutions folder.
4. Play your PowerPoint show for your team. Gauge their reaction, and solicit their advice on how you can make your presentation more exciting and interesting.

Chapter 5

Word Processing Skills

Lesson 5-1 The Word User Interface
Lesson 5-2 Apply the Eight Keys of Great Communication
Lesson 5-3 Format with the Ribbon and Mini Toolbar
Lesson 5-4 Format Business Documents
Lesson 5-5 Correct and Format Business Correspondence
Lesson 5-6 Build Informative Tables

WORD IN THE ACADEMIC AND BUSINESS WORLDS



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In this chapter, you will learn the basics of word processing. The focus will be on Microsoft Word simply because it is the most widely used word processing application in businesses. Word was created to make your documents look great. And that is important, but your *message* matters more—much more.

No matter the setting or the situation, in school or on the job, every word processing project requires the careful crafting of your message. *Work to create a message that will guide, direct, motivate, captivate, and sell your ideas.* Word and the other word processing alternatives can do their part to help you apply visual appeal to your work.

Word can be a big help as you create projects for school or in the business world like:

- Book reviews, essays, and themes
- Web pages and blog entries
- Invitations, agendas, and announcements
- Advertisements and sales brochures
- Presentations for the press
- Public relations and media campaigns
- Academic and business reports (see Chapter 10)
- Résumés and career documents (see Chapters 16 and 17)

Word is just one of many word processing applications available, including several free options. If you cannot afford Microsoft Word as a student, you can use other less costly yet very powerful alternatives as seen in Table 5-1.

Open Office	Free download	Visit OpenOffice	www.openoffice.org
Google Docs	Free online	Visit Google	www.docs.google.com
Microsoft Works	Free with Windows	See Windows Help	Start > All Programs > Microsoft Works
Corel WordPerfect Office	Low Cost/Free Trials	Visit www.corel.com	www.corel.com
WordPad	Free with Windows	See Chapter 1	Start > All Programs > Accessories > WordPad

TABLE 5-1 Word Processing Options

LESSON 5-1 The Word User Interface

IN THIS LESSON YOU WILL:

Objectives

1. Learn to use the tabs and ribbons of the Word user interface.
2. Modify the Quick Access Toolbar, document views, zooming, and scrolling features.
3. Create a book report while learning to create, name, and save Word files.

LEARN THE WORD USER INTERFACE

Watch the Video
Go to the video for this lesson.

www.cengage.com/school/keyboarding/digitools.

The first critical step is to learn Word's user interface, or UI, from top to bottom. You will accomplish this task in Activity 5-1. Then you will need to input text and save a Word file for safekeeping. After that, you will be ready to put Word through its paces and learn how to make it work for you in the classroom and in the business world.

Grab your keyboard and hold on tight because you are going to cover a lot of crucial skills without any further delay.

Activity 5-1 PRACTICE WITH THE WORD USER INTERFACE (UI)

INSTANT MESSAGE

As in PowerPoint, the Word File tab opens up dozens of options in a screen called "Backstage."

1. Open Microsoft Word.
2. Review the parts of the Word user interface (UI) marked in Figure 5-1.
   Word 2010: The File tab.
   Word 2007: The File tab looks like a circle and is called the Office button.

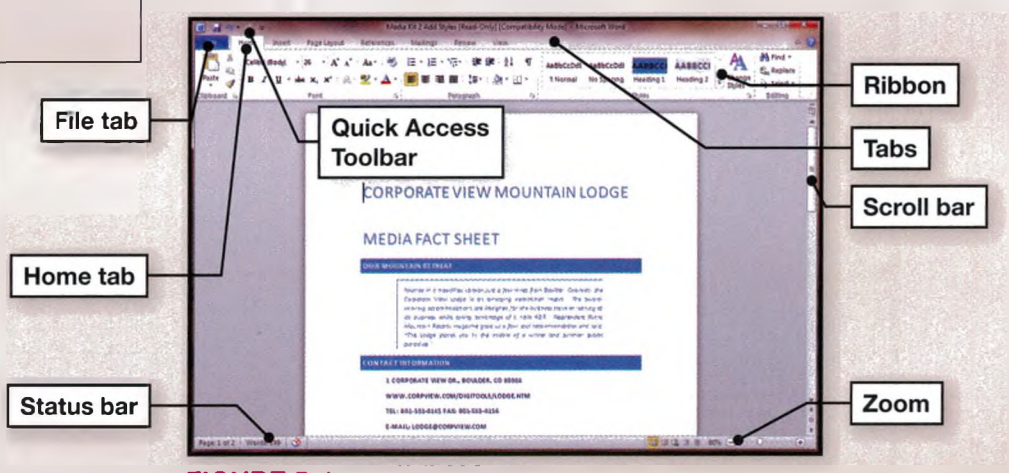


FIGURE 5-1 Microsoft Word's UI

3. Click any tab. When you do, you will display the *Ribbon* for that tab. The Ribbon displays hundreds of commands. Each tab activates a different feature or set of features. Each tab is divided into groups. In each group you will see the related options or buttons as seen in Figure 5-2.

4. Click the **Home** Tab if necessary. Examine the groups on the Home tab ribbon including *Clipboard, Font, Paragraph, Styles,* and *Editing*.

The Quick Access Toolbar is visible no matter what tab you choose. The Save, Undo, and Redo options are visible by default. You can add and delete options as seen in Figure 5-3.

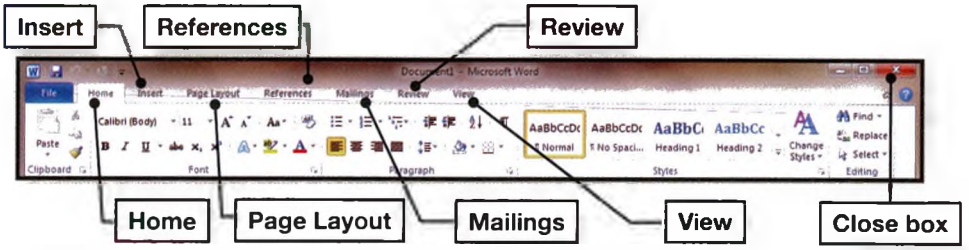


FIGURE 5-2 Commands and Features Available with Tabs

5. Choose the **Insert**, **Page Layout**, **References**, **Mailings**, **Review**, and **View** tabs marked in Figure 5-2 to view the groups and options available on each tab.

6. Choose the **down arrow** at the end of the Quick Access Toolbar.

7. Click the **Quick Print** option. This will add the Quick Print button to the Quick Access Toolbar, giving you the option to print with a single click of the button.

8. Again choose the **down arrow** at the end of the Quick Access Toolbar.

9. Click the **Spelling & Grammar** option. This will add the Spelling & Grammar button to the Quick Access Toolbar, giving you single-click access to your spelling and grammar checking tools. Leave Word open for the next activity.

INSTANT MESSAGE

The Ribbons can be collapsed so only the tabs appear. This allows you to see more of your document. However, while studying this chapter, do not collapse the Ribbons. If necessary, restore the full ribbons by right-clicking on any tab and unchecking *Minimize the Ribbon* in Word 2010. In Word 2007, uncheck the same *Minimize the Ribbon* option from the Quick Access menu.

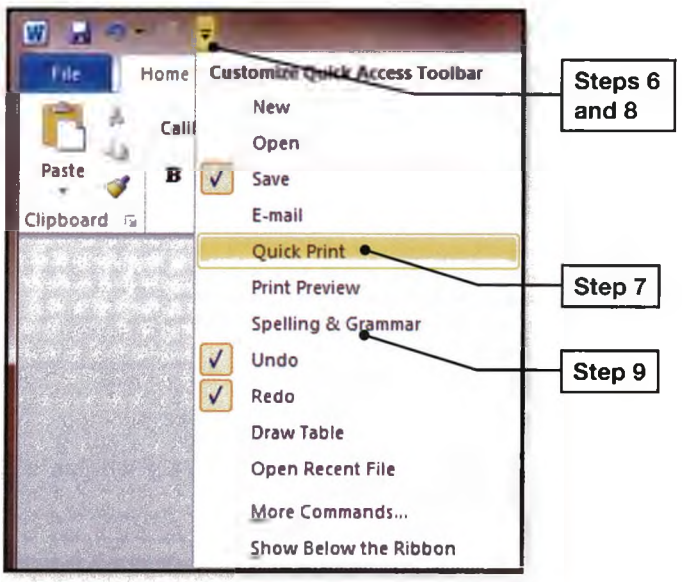


FIGURE 5-3 Quick Access Toolbar

Activity 5-2 START A BOOK REPORT

1. If necessary, open a blank document in Microsoft Word and choose the **Home** tab.
2. Key the book report shown below. Tap **Enter** at the end of each paragraph as indicated.

The Twilight Series <Enter>

Author: Stephenie Meyer <Enter>

Review by [Your Name] <Enter>

In Twilight, Stephenie Meyer weaves the lives of vampires, werewolves and humans into a dramatic tale of romance and suspense. Meyer introduces Bella, a typical teenage girl, who meets Edward, every girl's dream of a boyfriend who just happens to be a vampire. <Enter>

Bella has no way of knowing that age-old rivalry between werewolves and vampires has been stirred up. She is caught in the middle when one of her best friends turns out to be, you guessed it, a werewolf. This is just one of the plot twists created in the mind of Stephenie Meyer. <Enter>

About the Author <Enter>

Stephenie Meyer was born on December 24, 1973 in Hartford, Connecticut. She grew up in Phoenix, Arizona and graduated from Chaparral High School. She earned a B.A. in English in 1997 from Brigham Young University in Provo, Utah. She lives in Arizona with her husband, Christian, and her three sons Gave, Seth, and Eli. Her success as a writer led to her selection as USA Today's Author of the Year in 2008. She has written many novels and short stories, but she will probably be defined by her Twilight series the way J. K. Rowling was defined by the Harry Potter series. The Twilight series consists of these books: <Enter>

2005 Twilight <Enter>

2006 New Moon <Enter>

2007 Eclipse <Enter>

2008 Breaking Dawn <Enter>

The Twilight Series on the Big Screen <Enter>

Stephenie Meyer has sold more than 100 million copies of her vampire books, selling more than 29 million in just one year! Her books have been translated into dozens of languages. This level of enthusiasm for the books and its characters naturally caught the attention of Hollywood. Her stories have spawned a series of blockbuster, multi-million dollar movies based on her books. The first movie, Twilight, brought in over $70 million dollars in the first weekend. <Enter>

3. Save the starting paragraphs of this book report by choosing **File** > **Save As** in Word 2010 as seen in Figure 5-4. (Choose **Office Button** > **Save As** in Word 2007.)
4. In the Save As dialog box:
   a. Key **Book Report 1** in the File Name box.
   b. Browse to your ***Chapter 5*** solutions folder.
   c. Click or tap **Save**.
5. The Save As dialog box closes, the document is saved, and you can continue working with the document.

INSTANT MESSAGE

When you key text, notice that there is a slight space between each line. This is called the default line spacing, which is set at 1.15 spaces so that the lines don't crush together. Adequate line spacing makes the document easier to read.

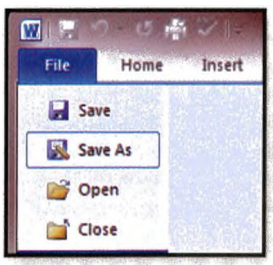


FIGURE 5-4
Save As Option Under the File (Backstage) Menu

YOUR VIEW ON THE WORD WORLD

The Views tab allows you to quickly change the way you look at a document. Some views can help you determine whether the document is visually appealing and professional-looking. Other views are better for editing or outlining. In the next activity, you will view your book report in these ways:

- Print Layout
- Full-Screen Reading
- Web Layout
- Outline
- Draft

The Views menu also lets you display the Ruler in Word, which will be a helpful tool in finding spacing problems and formatting errors as you move through this chapter.

Activity 5-3 APPLY WORD'S VIEWING AND ZOOMING TOOLS

DidYou

The Full Screen Reading option makes a document easy to view and read. It is an excellent view for proofreading and accuracy checking.

1. If necessary, open Microsoft Word, choose the **File** button, and select **Open**. (Word 2007 users choose the **Office** button and then **Open**.)
2. Navigate to your ***Chapter 5*** solutions folder and open your ***Book Report 1*** file.
3. Pick the **View** tab and then choose the **Print Layout** button in the *Document Views* group as shown in Figure 5-5. This view is the one you will use for most of your work.
4. Click a check mark in the **Ruler** option in the *Show* group marked in Figure 5-5.

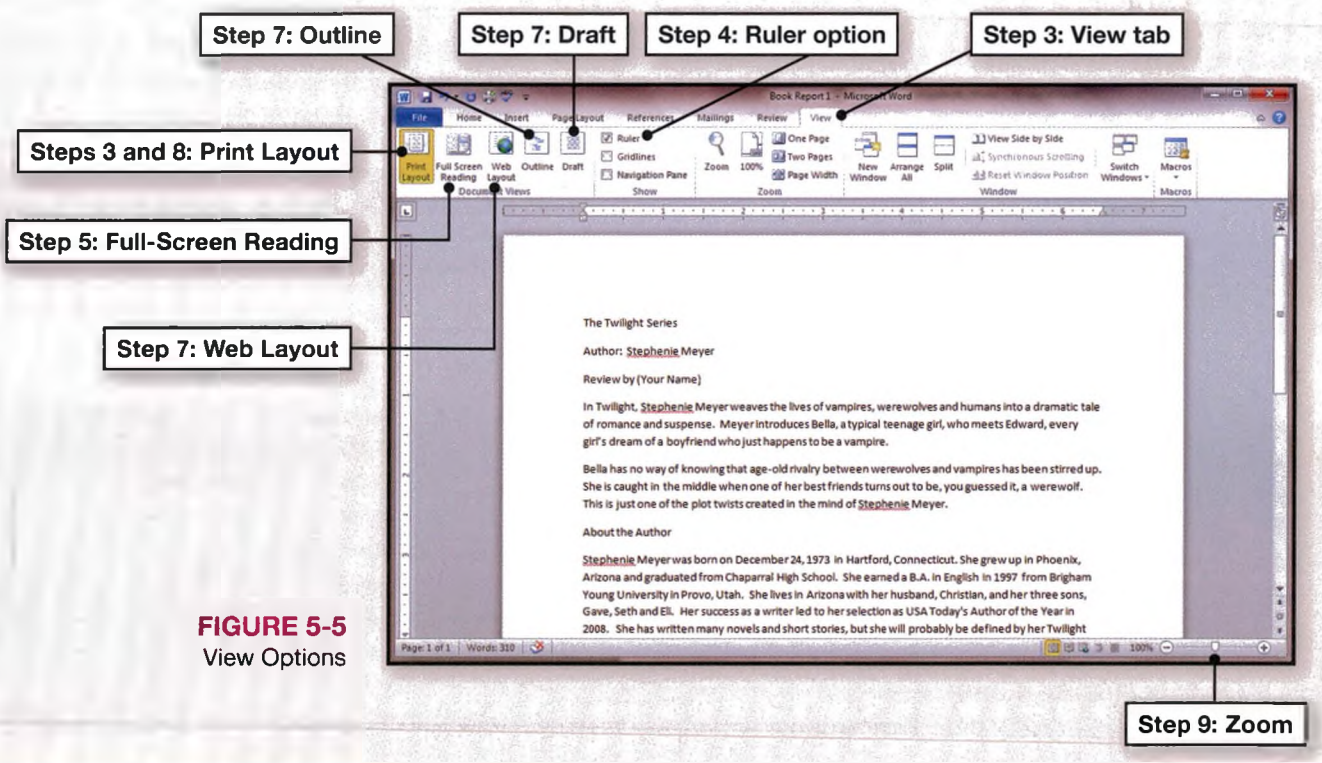


FIGURE 5-5
View Options

INSTANT MESSAGE

The Web Layout view shows you what a document will look like online. The Draft view is helpful in preparing initial unformatted drafts. Outlines can be created with ease in Microsoft Word.

5. Choose the **Full Screen Reading** option.
6. Close the *Full Screen Reading* option by clicking the **Close** box.
7. See the **Web Layout**, **Outline**, and **Draft** views by clicking or tapping each button one after another. Each button is marked in Figure 5-5. (*Note:* To exit the Outline view, you need to click the **Close** box.)
8. Select the **Print Layout** button to return, once again, to your normal Print Layout view. (See Figure 5-6.)
9. Drag the **Zoom** Slider toward the + symbol, which will zoom into your document until it appears about 500 percent of its normal size. (See Figure 5-6.)
10. Use the scroll bars to move around the document until the name *Bella* appears in the middle of the screen as shown in Figure 5-6.

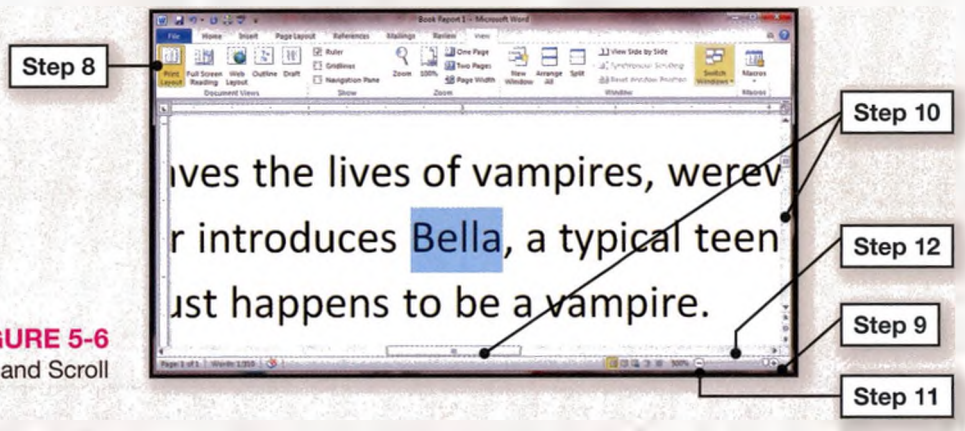


FIGURE 5-6
Zoom In and Scroll

11. Drag the **Zoom** Slider next to the - symbol, which will zoom you back and away from your document until it appears about 10 percent of its normal size.
12. Drag the **Zoom** Slider to the middle of the slider bar, which will zoom your document out to 100 percent of its original size. You can zoom in and out of your document with the Zoom feature and scroll to a specific place in a document with the scroll bar.
13. Close your ***Book Report 1*** document.

LESSON 5-2 Apply the Eight Keys of Great Communication

IN THIS LESSON YOU WILL

Objectives

1. Apply the eight keys of dynamic digital communication.
2. Track document statistics through the Status bar.
3. Find and replace mistakes, correct grammar, and correct spelling errors.

Key Terms

homonym
media kit

MANAGING THE MEDIA AND IMPRESSING THE PRESS

In the next few lessons, see how TeleView, Corporate View's small travel and hospitality team, has applied the *Eight Keys to Dynamic Digital Communication* in a report called a media kit. (Review the *Eight Keys* in Table 4-1 in Chapter 4.)

The *Message & Purpose* behind a media kit: TeleView is besieged with inquiries from the media about its popular Corporate View Lodge and its many recreational activities and community events. Questions come via reporters, editors, and fact checkers from travel, skiing, and snowboarding magazines; extreme sport websites and blogs; and newspapers, TV, and radio stations. Taking time to answer each request for information can easily swamp the most dedicated media relations manager.

To reduce the communications overload, TravelView produces a **media kit** that can be read online or printed as needed. A media kit is like a fact sheet. It is an effective way to make sure the information shared about the resort is clear, concise, accurate, and helpful to the audience of media and press professionals.

BOUNDARIES & GUIDELINES: THE STATUS BAR

Resting at the bottom of Microsoft Word interface is the Status bar. Barely noticeable, it is nonetheless a powerful tool that few people take advantage of. The Status bar will help you attack your proofing and accuracy goals and will track your boundaries and guidelines with very little fuss. It is the perfect tool for the following:

- Finding and replacing mistaken words
- Counting characters, words, lines, and paragraphs
- Viewing documents in a variety of ways
- Proofing and editing spelling and grammar

Activity 5-4 IMPROVE THE STATUS OF YOUR DOCUMENTS

1. If necessary, open Microsoft Word.
2. Choose the **File** button and select **Open**.
3. Navigate your way to the ***DigiTools Data*** files for ***Chapter 5*** and open the ***Media Kit*** file.
4. Before you start making changes, save a copy to your ***Chapter 5*** solutions folder.
   a. Choose the **File** button and select **Save As**.
   b. Navigate to your ***Chapter 5*** solutions folder.
   c. In the *File name* text box, key **Media Kit 1**.
5. Become familiar with each command button on the Status bar marked in Figure 5-7.

DigiTip

Access the Go To, Find, and Replace option: Use this feature to find mistaken words or phrases, replace them, or go to a specific portion in a document.

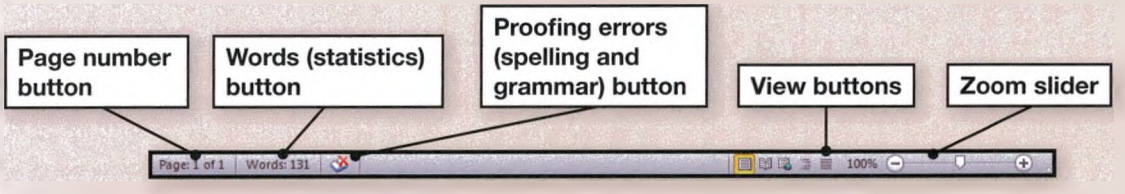


FIGURE 5-7 Command Buttons on the Status Bar

6. Click or tap on the **Page number** button marked in Figure 5-8. This will open the Go To tab of the Find and Replace dialog box. (*Note:* You can also access Replace from the Home ribbon's *Editing* group.)
7. Select the **Replace** tab. (See Figure 5-8.)
8. Key **Location** in the *Find what* text box.
9. Key **Accessibility** in the *Replace with* text box.

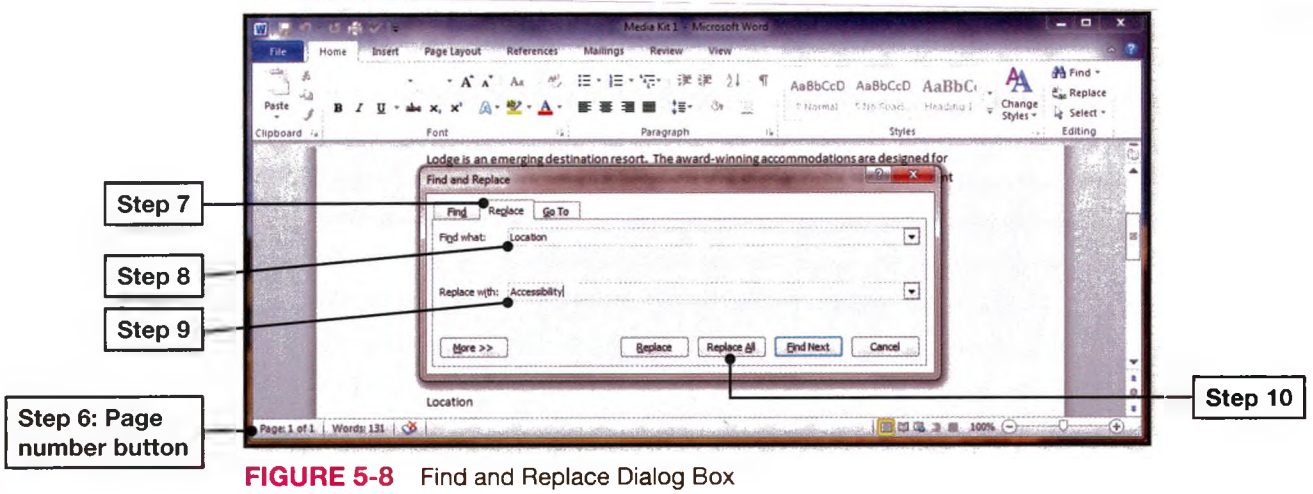


FIGURE 5-8 Find and Replace Dialog Box

Statistics: Track your assignment length guidelines by counting the number of pages, words, characters, paragraphs, and lines.

10. Select **Replace All** so the word *Accessibility* replaces the word *Location* every time it appears in the document. Click **OK** in the message box that indicates the number of replacements made. Then click **Close** in the Find and Replace dialog box.
11. Select the heading *Accessibility* and the paragraph directly below it as seen in Figure 5-9.
12. Select the **Words** button as marked in Figure 5-9. Review the number of words, characters, paragraphs, and lines appearing in the Word Count dialog box.

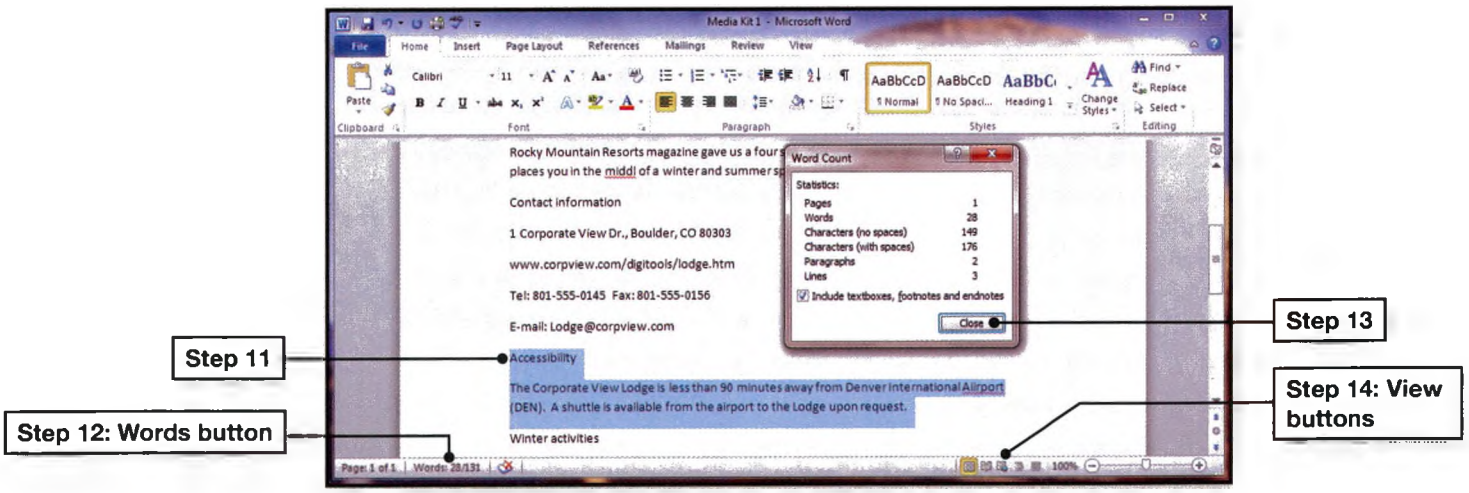


FIGURE 5-9 Document Statistics

INSTANT MESSAGE

To count words in the entire document, do not select anything and pick the Word Count button on the Status bar.

13. Click or tap **Close** to close the dialog box.

Document views: The Status bar quickly allows you to change the way you view a document. This can help you determine whether a document is visually appealing, accessible, accurate, and professional-looking.

14. Use the Status bar's one-click View buttons, indicated in Figure 5-9, to see your document in different views, as you did from the Views ribbon back in Activity 5-3.
    - Print Layout
    - Full-Screen Reading
    - Web Layout
    - Outline
    - Draft
15. Return to the Print Layout view.
16. Save your changes to ***Media Kit 1*** by clicking the **Save** button from the Quick Access Toolbar or choosing **File** > **Save** (or **Office** button > **Save As** in Word 2007).

PROOFING & ACCURACY: CHECK SPELLING AND GRAMMAR

There is no more important principle in digital communication than making sure your documents are "accurate and free from grammatical and spelling errors." Word can help with that. In Word, misspellings are marked with a wavy red underlines. (See the word *Airport* in the ***Media Kit 1*** file.) Grammatical errors appear with wavy green or blue lines: green will point you to potential structural mistakes, and blue can indicate **homonym** errors. (A homonym is a word that sounds the same but has a different meaning, like *its* and *it's* or *their* and *there*.) Microsoft Word gives you several options when it comes to checking and fixing these mistakes. You can:

- Choose the Spelling & Grammar button from the Quick Access Toolbar.
- Right-click on any misspelled word.
- Choose the Review tab, and select Spelling & Grammar.
- Choose the Proofing button on the Status bar as marked in Figure 5-10.

Activity 5-5 PROOF YOUR SPELLING AND GRAMMAR

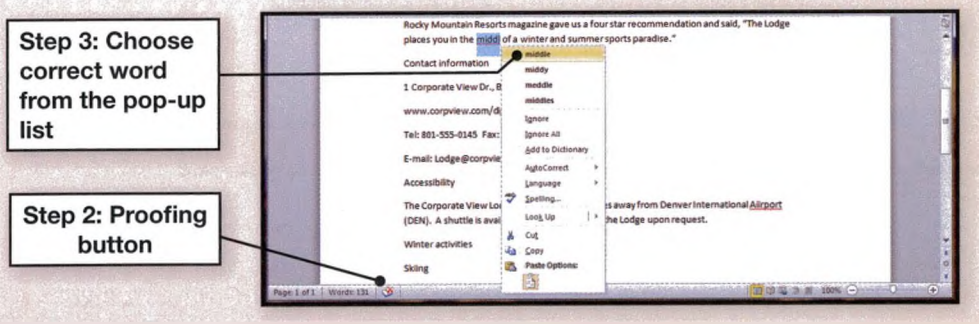


FIGURE 5-10 Proof and Spell Check

1. If necessary, open Microsoft Word and the ***Media Kit 1*** file from your ***Chapter 5*** solutions folder.
2. Click or tap on the **Proofing** button marked in Figure 5-10.

INSTANT MESSAGE

Carefully proofread your document and make sure you have corrected all of the spelling and grammatical mistakes.

3. Choose the correct word from the pop-up list.
4. Fix your second error by right-clicking on any word with a wavy red, blue, or green line under it and making the correction.
5. Choose the **Spelling & Grammar** button from the Quick Access Toolbar. (*Note:* If you do not see this button on your Quick Access Toolbar, repeat Activity 5-1, step 8.)
6. Make the remaining corrections by picking the correct suggestions from the Spelling and Grammar dialog box and choosing **Change**, as seen in Figure 5-11.

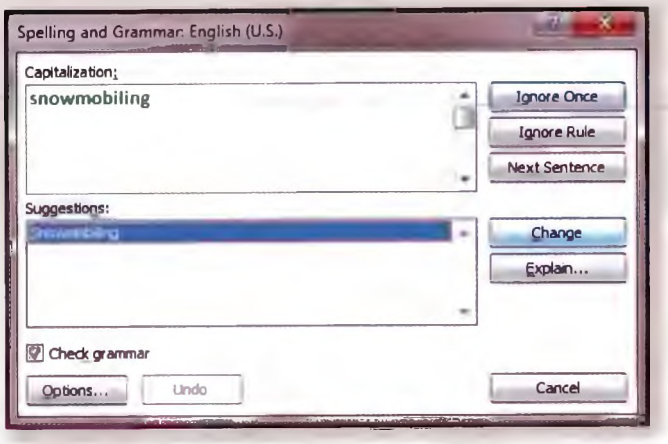


FIGURE 5-11 Spelling and Grammar Tools

7. Continue proofing and correcting all of the spelling and grammar mistakes in this document. Then proofread the document. Fix any errors that need correcting.
8. Resave your ***Media Kit 1*** file quickly by choosing the **Save** button from the Quick Access Toolbar or choosing **Save** from the File/Backstage menu in Word 2010 (or the Office button's menu in Word 2007).

ADD WORDS TO YOUR DICTIONARY

What do you do when a word is spelled correctly but Word marks it as wrong? You simply add it to your dictionary. For example, think about the spelling of *Stephenie* in ***Book Report 1***. Her name is not misspelled; Ms. Meyer simply has an unconventional spelling of the name Stephanie! Fix this problem in the next activity.

Activity 5-6 SPELL CHECK YOUR BOOK REPORT

1. Open Microsoft Word and then open the ***Book Report 1*** file from your ***Chapter 5*** solutions folder.
2. Right-click on the name **Stephenie**.
3. Choose **Add to Dictionary**.
4. Use the Spelling and Grammar tools to correct any additional errors you may have made.
5. Save the changes to your ***Book Report 1*** file and then close it. If possible, leave Word open for the next lesson.

LESSON 5-3 Format with the Ribbon and Mini Toolbar

IN THIS LESSON YOU WILL:

Objectives

1. Apply case and alignment formatting.
2. Adjust spacing.
3. Copy and paste text, formats, and styles.

Key Terms

align left
align right
bulleted lists
case
center
clipboard
default
flush
font style
Format Painter
formatting
justify
Live Preview
lowercase
Mini Toolbar
sentence case
Styles
tOGGLE cASE
UPPERCASE

USE THE HOME TAB'S FORMATTING AND ACCESSIBILITY TOOLS

INSTANT MESSAGE

Save key versions of important projects. That way if you delete something important or if a file is corrupted, you can go back to an earlier copy.

Formatting is the artful arrangement, layout, and design of a document. Quality formatting makes documents visually appealing and accessible to the reader. Accessibility means that your audience can quickly find the information they are looking for. There are many formatting tricks that can be used to improve accessibility: titles, subtitles, side headings, bold, italic, tabs, spacing, indenting, and the use of lists and tables.

Help TeleView accomplish its communications goals by applying the seventh key of technical communication, *Accessibility & Visual Appeal*, to its media kit.

Activity 5-7 FORMAT A MEDIA KIT WITH THE HOME TAB'S TOOLS

The *Home* tab's command buttons are divided into the groups illustrated in Figure 5-12. These include the *Clipboard*, *Font*, *Paragraph*, *Styles*, and *Editing* groups.

1. If necessary, open Word and then reopen your ***Media Kit 1*** file saved in Activity 5-5.
2. Choose the **Home** tab (see Figure 5-12), and memorize the groups under this tab.

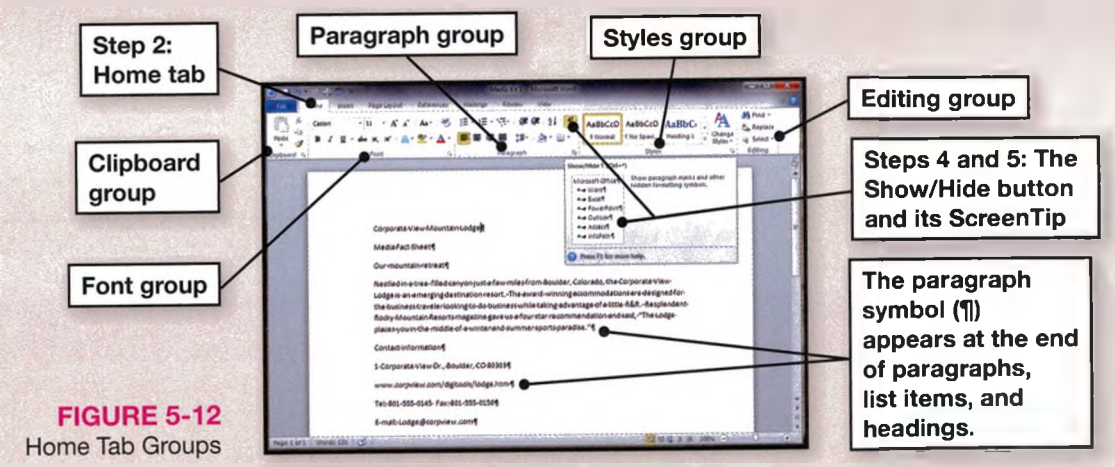


FIGURE 5-12
Home Tab Groups

3. Move your mouse pointer over the command buttons on the Home tab. Pause or hover over each button so that the ScreenTips have time to appear.

DigiTip

Choose **Show/Hide** to display the hidden paragraph (¶) symbols, the space dots between words (.), and the tab symbol (→). These symbols can help you easily identify formatting mistakes but will not appear in the final printed document. These symbols may distract you at first, but leave the Show/Hide symbols active as you work. You will soon get used to them, and they will help you find spacing mistakes.

INSTANT MESSAGE

The dots between words are space markers. Allow only one space between words. Two spaces after periods and other punctuation marks are acceptable, but most fonts today require only a single space after punctuation.

4. Hover over the **Show/Hide** button (which looks like the paragraph (¶) symbol) in the *Paragraph* group as illustrated in Figure 5-12. Read the ScreenTip description for this button.

5. Activate the hidden symbols by clicking or tapping the **Show/Hide** button in the *Paragraph* group. (See Figure 5-12.)

DigiTip

The **font style** determines the look of the letters in words. The font style can have a dramatic impact on your document's readability and visual appeal. If you choose a font that is unreadable, no matter how interesting you think it looks, your message could be lost in the confusion.

INSTANT MESSAGE

If the Editing group has been collapsed, click or tap the maximize button or click or tap on the down arrow near the word *Editing* to display all the options.

6. Select the entire document by picking the **Select** button in the *Editing* group and picking **Select All** as illustrated in Figure 5-13. (*Note:* You can also click or tap on the left side of the first word and drag down to the end of the document or press **Ctrl + A**.)

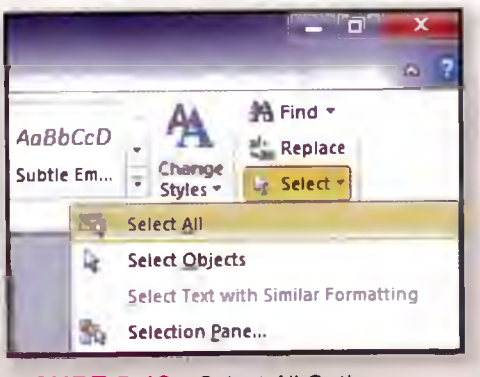


FIGURE 5-13 Select All Option

7. Choose the down arrow next to the **Font** selection button and scroll down the list, as shown in Figure 5-14, observing the Live Previews of the many font styles.

DigiTip

As you scroll over the list of font styles and sizes, the **Live Preview** feature allows you to see in advance what a font change will look like.

8. Continue scrolling down, and choose the font named **Tahoma**, as shown in Figure 5-14.

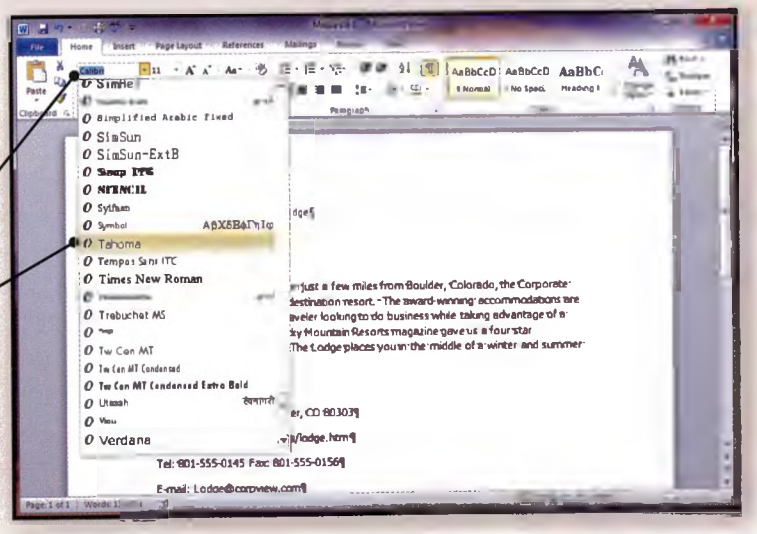


FIGURE 5-14
Tahoma Font from Font Menu

INSTANT MESSAGE

Font size is measured in points. There are 72 points in an inch. An average font size for easy reading is usually set between 10 and 12 points for normal paragraphs. Titles and side headings can be slightly larger.

DigiTip

Font size: The size of the font should be determined by the readability and accessibility needs of your audience. If members of your audience are younger or suffer with poor vision, larger font sizes are preferable. Otherwise, 10- to 12-point fonts are considered average.

9. Select all of the text in the document again.
10. Choose the font **Size** button's down arrow to display the font size list. Hover down and choose the number **12** as seen in Figure 5-15.
11. Click or tap the **Undo** button twice. (See Figure 5-16.) This will change your font size and font style back to the original selections.

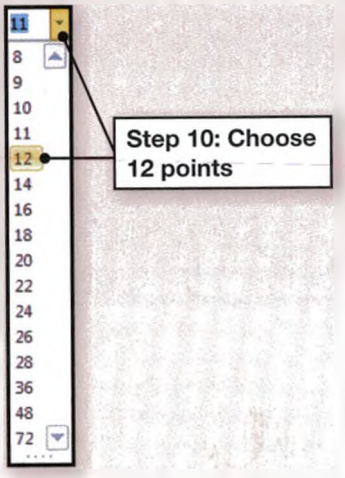


FIGURE 5-15 Font Size Menu

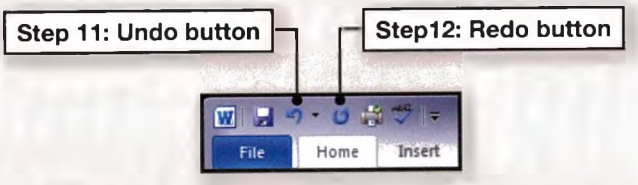


FIGURE 5-16 Quick Access Toolbar

12. Click or tap the **Redo** button two times. This will change the font size back to the Tahoma 12-point font.

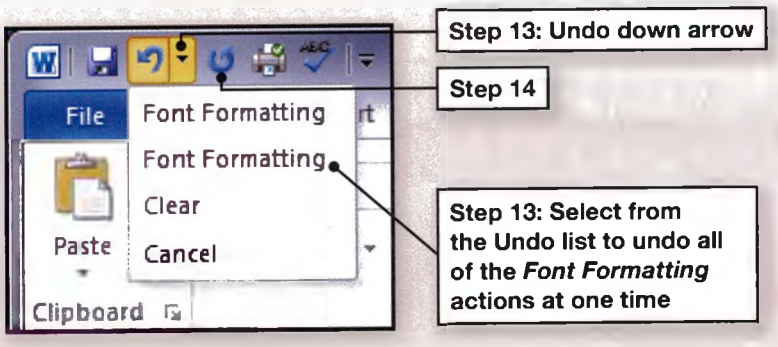


FIGURE 5-17 Undo Drop-Down Menu

13. Choose the down arrow next to the **Undo** button. This reveals the actions you have taken. Choosing from this list will allow you to undo multiple actions at once. Move down the list and select the last **Font Formatting** option in the list to undo the font style and font size (*Font Formatting*) changes made in steps 6–10. (See Figure 5-17.)
14. Choose the **Redo** command button two times. This will reapply the font style and font size changes removed in step 13. Your document should now shift back to a 12-point Tahoma font.
15. Save the changes to your ***Media Kit 1*** file.

MAKE A STRONG VISUAL PRESENTATION

Case refers to the capitalization of a word. The **UPPERCASE** option capitalizes each letter or character and is used for titles and main headings. **Sentence case** capitalizes the first word of each sentence. The **lowercase** option removes all capitalization. The **tOGGLE cASE** feature reverses the current capitalization of each letter in each word.

Bolded text stands out from normal text. It adds to a document's accessibility and visual appeal when used for titles and side headings.

Activity 5-8 FORMAT HEADINGS WITH HOME TAB OR MINI TOOLBAR COMMANDS

1. If necessary, reopen your ***Media Kit 1*** file.
2. Choose the title of your media report by selecting the top two lines as shown in Figure 5-18.
3. Choose the **Change Case** button in the *Font* group.
4. Choose **UPPERCASE** from the list, as shown in Figure 5-18.

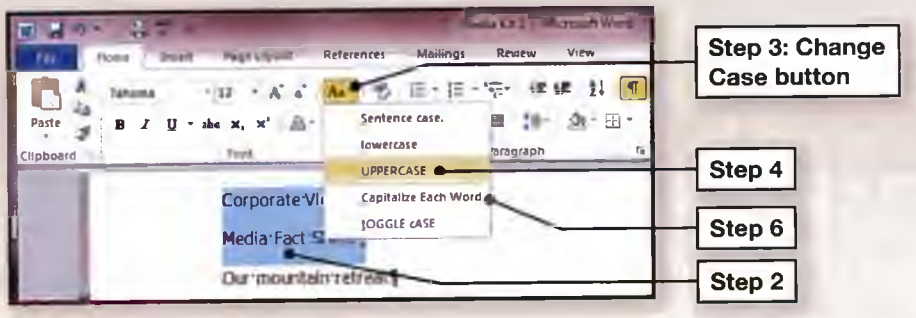


FIGURE 5-18 Case Drop-Down Menu

INSTANT MESSAGE

Capitalize important words in a title, including the beginning and ending words (*For Whom the Bell Tolls, Camping Made Easy, DigiTools*).

DigiTip

Capitalize side headings: Side headings require capital letters for each significant word. This makes them accessible by making them easy to locate on the page.

5. Choose the first multiple-word side heading, *Our mountain retreat*, in your media report.
6. Choose the **Change Case** button in the *Font* group, and choose **Capitalize Each Word** from the list. (See Figure 5-18.)
7. Repeat steps 5–6 with the other multiple-word side headings, including *Contact Information* and *Winter Activities*.
8. Select the title once again by choosing the first two lines of the document, as seen in Figure 5-19.
9. Choose the **Bold** button from either the Mini Toolbar or the *Font* group as indicated in Figure 5-19.

DigiTip

Use the buttons on the **Mini Toolbar** (see Figure 5-19) to apply the most common formatting options, such as bold and italic. The Mini Toolbar appears immediately after you select your target text.

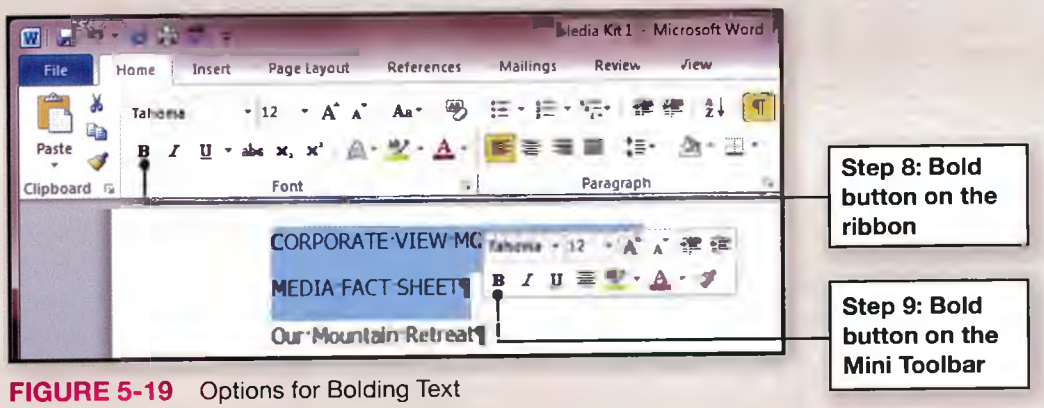


FIGURE 5-19 Options for Bolding Text

10. Apply bold to each of the major side headings, including *Our Mountain Retreat*, *Contact Information*, *Accessibility*, and *Winter Activities*.

INSTANT MESSAGE

Italicize the titles of magazines, newspapers, and online publications: *Time*, *Newsweek*, *People*, and *Resplendent Rocky Mountain Resorts*.

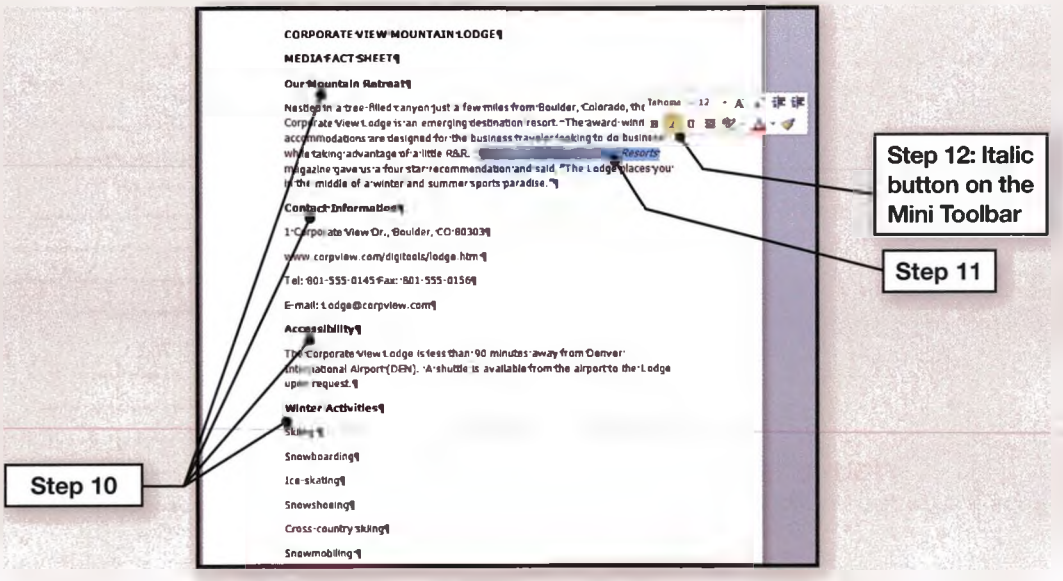


FIGURE 5-20 Formatting within Document

11. Select the title of the magazine, *Resplendent Rocky Mountain Resorts*, as seen in Figure 5-20.

12. Choose the **Italic** button from the Mini Toolbar or from the *Font* group. (See Figure 5-20.)

13. Save the changes to your ***Media Kit 1*** file in your ***Chapter 5*** solutions folder.

Italic makes text stand out but in a more subtle way than bold text. Italic should also be used sparingly but is required for the titles of publications like books, articles, magazines, and online publications.

CENTER, ALIGN, AND JUSTIFY TEXT TO THE MARGINS

INSTANT MESSAGE

Microsoft Word 2010 will automatically set **default** (or initial) margins for every document. Unless changed, the left and right margins as well as the top and bottom margins will be set at 1 inch. Word 2007 will set the side margins at 1.25 inches and the top and bottom margins at 1 inch.

Margins are the unprinted area surrounding a document. Think of a margin as a frame around a picture. Margins make documents look clean. Margins also make documents easier to read and more professional looking.

Margins are very useful. For example, titles are often centered between the margins. Text can also be aligned to the left and right margins of the page, as illustrated in Figure 5-21.

A. **Center**: Text is placed midway between the margins.

B. **Justify**: Text lines up **flush** against both the left and right margins. Spacing between words is averaged across the line.

C. **Align Right**: Text lines up flush along the right margin but leaves text jagged on the left margin.

D. **Align Left**: Text lines up straight (flush) along the left margin but leaves text jagged on the right margin.

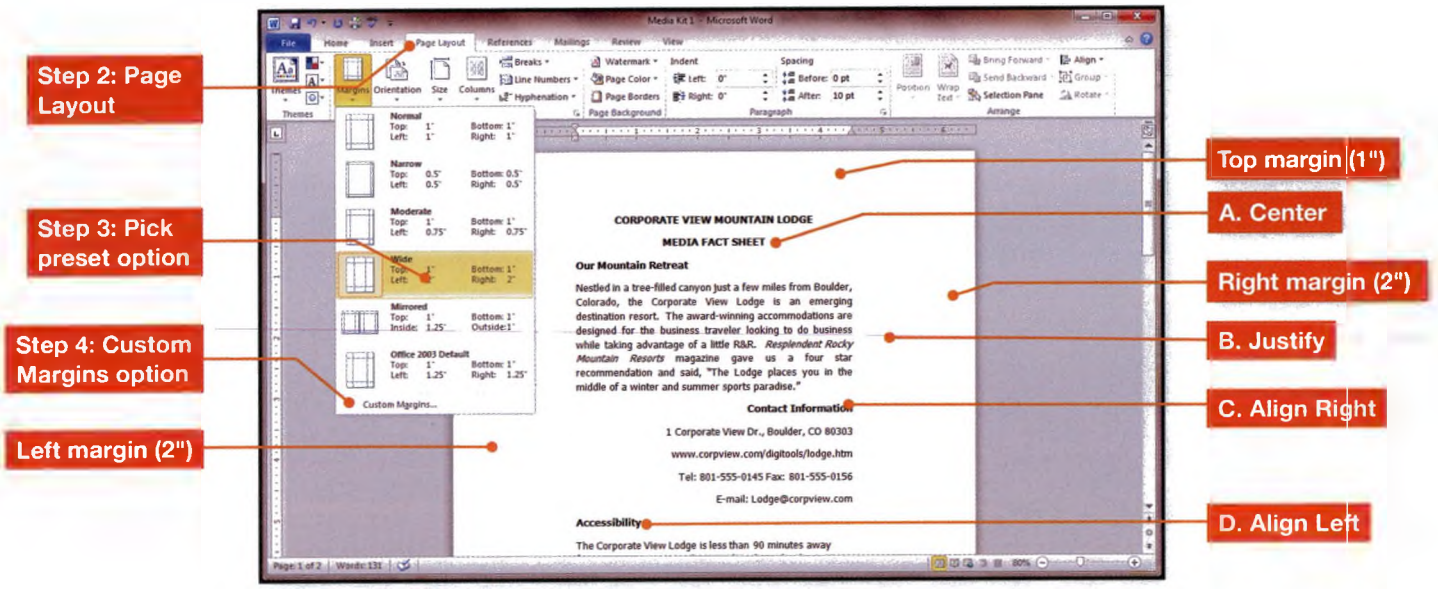


FIGURE 5-21 Page Layout and Alignment Options

Activity 5-9 CHANGING MARGINS AND ALIGNING TEXT

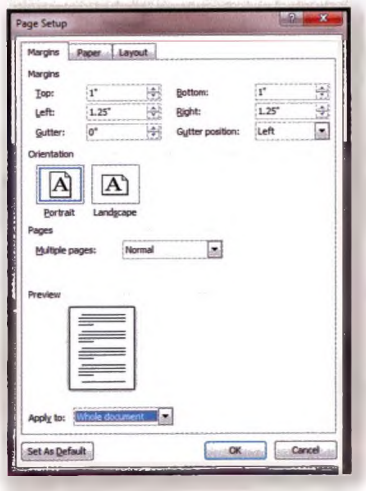


FIGURE 5-22
Page Setup Dialog Box

1. If necessary, reopen your ***Media Kit 1*** file.
2. Choose the **Page Layout** tab.
3. Choose the **Margins** button's down arrow and pick **Wide**, one of the preset options seen in Figure 5-21. The Wide choice will set the left and right margins at 2".
4. Choose the **Custom Margins** to open the Page Setup dialog box and change the settings, as seen in Figure 5-22. Notice that the margins are set at 1 inch for the top and bottom margins and at 1.25 for the left and right margins. Leave the document open for the next activity.
5. Select the title, the first two lines of the document, as illustrated in Figure 5-23.
6. Choose the **Center** button from the *Paragraph* group or from the Mini Toolbar as shown in Figure 5-23.

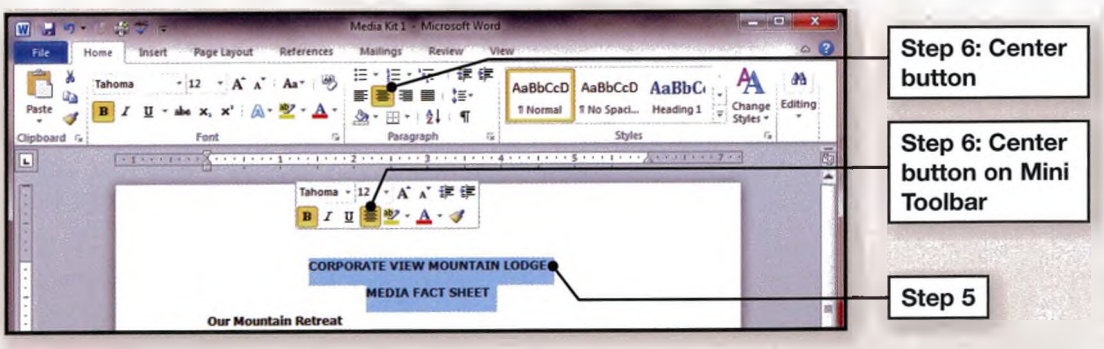


FIGURE 5-23 Centering Text

INSTANT MESSAGE

Hold down the Ctrl key to select and format more than one paragraph at a time.

INSTANT MESSAGE

Indent and tab: To help a reader quickly identify paragraphs and key information, use tabs and indents for paragraphs or lists.

7. Experiment with the Align Right feature by choosing each side heading and clicking the **Align Right** button.
8. Left-align each side heading again by choosing each one and clicking or tapping the **Align Left** button as seen in Figure 5-24.
9. Apply the Justify feature to the paragraphs below the *Our Mountain Retreat* and *Accessibility* side headings by choosing each one and clicking or tapping the **Justify** button. (See Figure 5-24.)
10. Tab the paragraphs below the side headings *Our Mountain Retreat* and *Accessibility* as seen in Figure 5-24. Position your insertion point (flashing line) in front of the word *Nestled* in the paragraph following the side heading *Our Mountain Retreat* and then tap the **Tab** key. This will indent the first line as seen in Figure 5-24. In the same way, tab the first line underneath the *Accessibility* side heading.

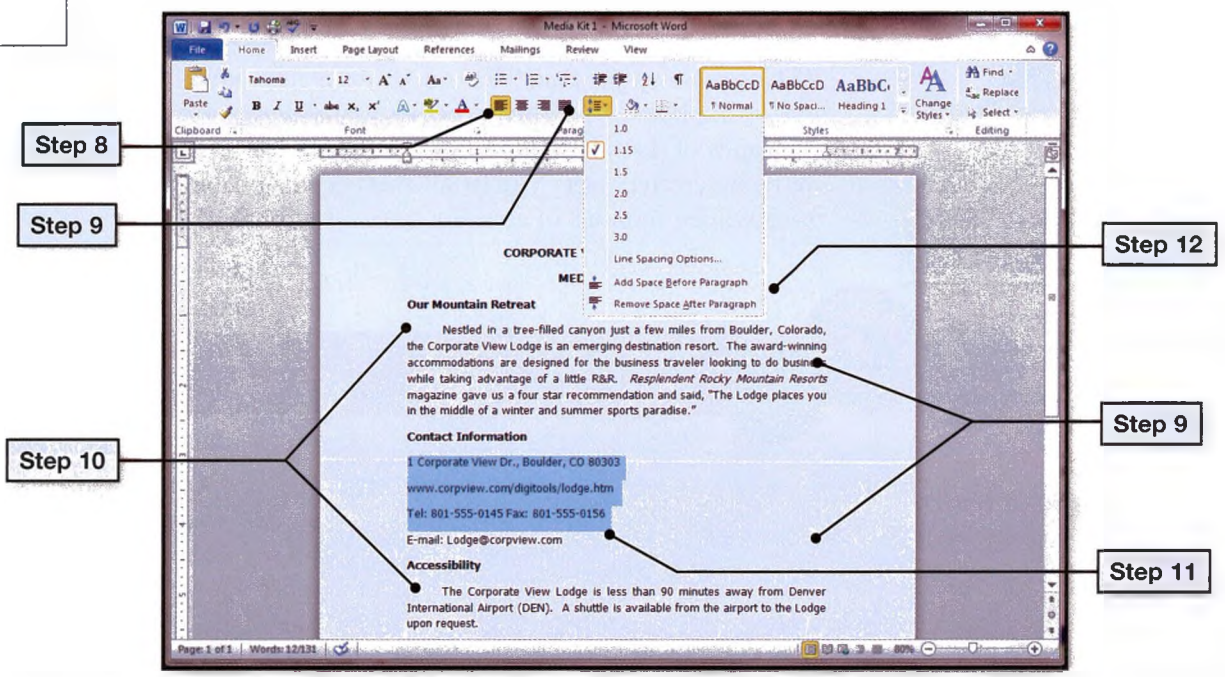


FIGURE 5-24 Alignment and Spacing Options

DIGITip

Decrease the line spacing between lines in the paragraphs in a list with the Line and Paragraph Spacing button's (Home tab, Paragraph group) **Remove Space After Paragraph** command. Then use the **Increase Indent** command to shift entire paragraphs ½ inch to the right as seen in Figure 5-25.

11. Select the first three lines below the *Contact Information* side heading, as seen in Figure 5-24.
12. Choose the **Line and Paragraph Spacing** button's down arrow from the *Paragraph* group, as seen in Figure 5-25, and then pick **Remove Space After Paragraph**.

13. Select the four lines of text below the side heading *Contact Information*. Choose the **Increase Indent** button from the *Paragraph* group or the Mini Toolbar. Each line will move ½ inch to the right as seen in Figure 5-25.

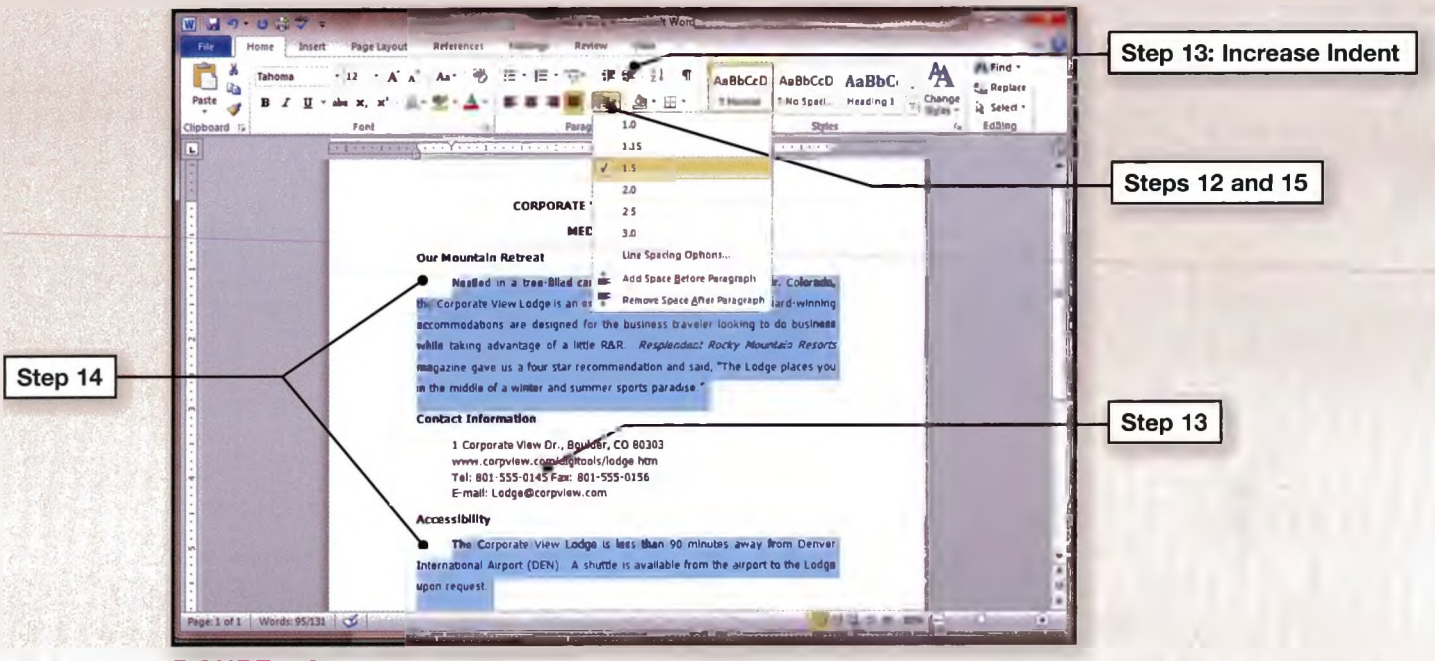


FIGURE 5-25 Paragraph Spacing and Indent Options

DigiTip

Indent and tab: To help readers quickly find what they are looking for, tabs and indents are used for paragraphs and lists.

14. Select the two paragraphs below the *Our Mountain Retreat* and *Accessibility* side headings as seen in Figure 5-25.

15. Choose the **Line and Paragraph Spacing** button's down arrow from the *Paragraph* group, as seen in Figure 5-25, and then pick **1.5** spacing option. This will increase the spacing between the lines in the paragraph.

DigiTip

Bulleted lists help organize specific details in an accessible and easy-to-read manner. Bulleted lists are used to highlight items of similar rank or priority. Bullets do not have to be bullets or dots. They can be check marks, diamonds, or symbols of many kinds.

INSTANT MESSAGE

Hold down the **Ctrl** key to select and format more than one paragraph at a time.

16. Select the six items of text below the side heading called *Winter Activities*. Choose the **Bullets** button from either the Mini Toolbar or the *Paragraph* group. The items will be bulleted as shown in Figure 5-26.

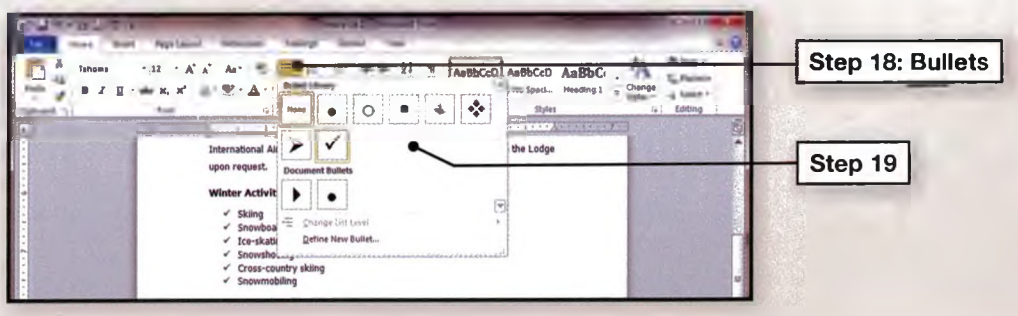


FIGURE 5-26 Bullet Lists

17. Select the six items of the bulleted list again.
18. Choose the down arrow next to the **Bullets** button from the *Paragraph* group. (See Figure 26.)
19. Choose the check mark bullet (✓) from the Bullet Library in the pop-up menu shown in Figure 5-26.
20. Save your file with a new name, ***Media Kit 2***, in your ***Chapter 5*** solutions folder.

Activity 5-10 COPYING AND PASTING TEXT AND FORMATS

1. Open your ***Media Kit 2*** file if necessary.
2. Open the ***Summer Activities*** file from the data files for this chapter. Correct any spelling and grammatical errors you see. (Refer to proofing, spelling, and grammar information earlier in this chapter.)



The **clipboard** is a holding space. When you cut or copy text or images, they are stored in the clipboard until you decide to use them by choosing the Paste command.



INSTANT MESSAGE

To make it easier to see both files, Windows 7 users can snap the two open files to the left and right sides of the screen as described in Chapter 1.

3. Select all of the text in ***Summer Activities***, as seen in Figure 5-27.
4. Choose the **Copy** button from the *Clipboard* group.

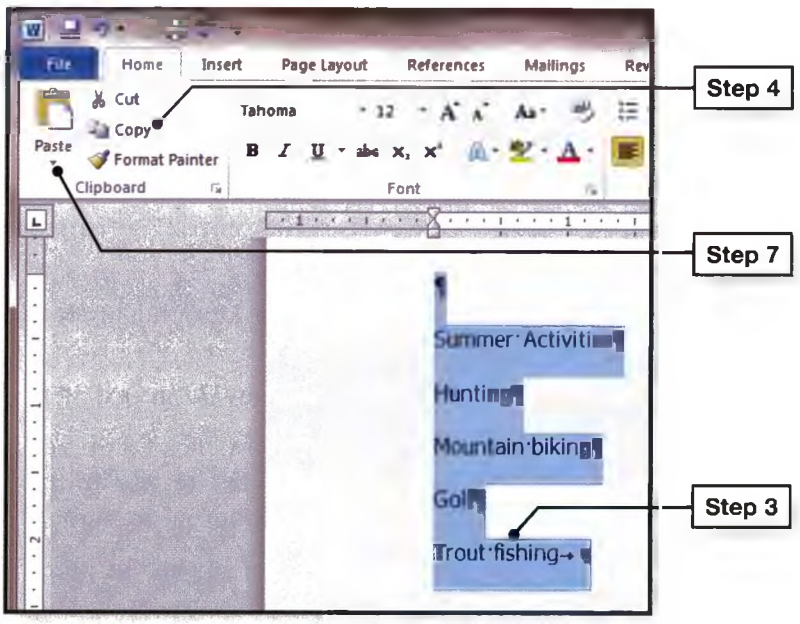


FIGURE 5-27
Copy and Paste Buttons

5. Close the ***Summer Activities*** file without saving and switch to ***Media Kit 2***.
6. Click your insertion point just after the *Accessibility* paragraph and just before the *Winter Activities* side heading.

7. Choose the **Paste** button from the *Clipboard* group.

DID YOU KNOW?

The **Format Painter** allows you to copy and paste formats from one selection of text to another. A single click or tap will allow you to copy and paste one format at a time. If you need to copy a format to several places in a document, double-click or double tap on the Format Painter button. However, if you double-click or double tap on the Format Painter button, the feature remains active until you click or tap on it one more time to turn it off.

INSTANT MESSAGE

If you accidentally apply a format, use the Undo button to correct your mistake.

8. Select the heading *Winter Activities* as shown in Figure 5-28.
9. Click or tap on the **Format Painter** button from the *Clipboard* group or from the Mini Toolbar as shown in Figure 5-28. Your insertion point will now take the shape of the Format Painter icon.

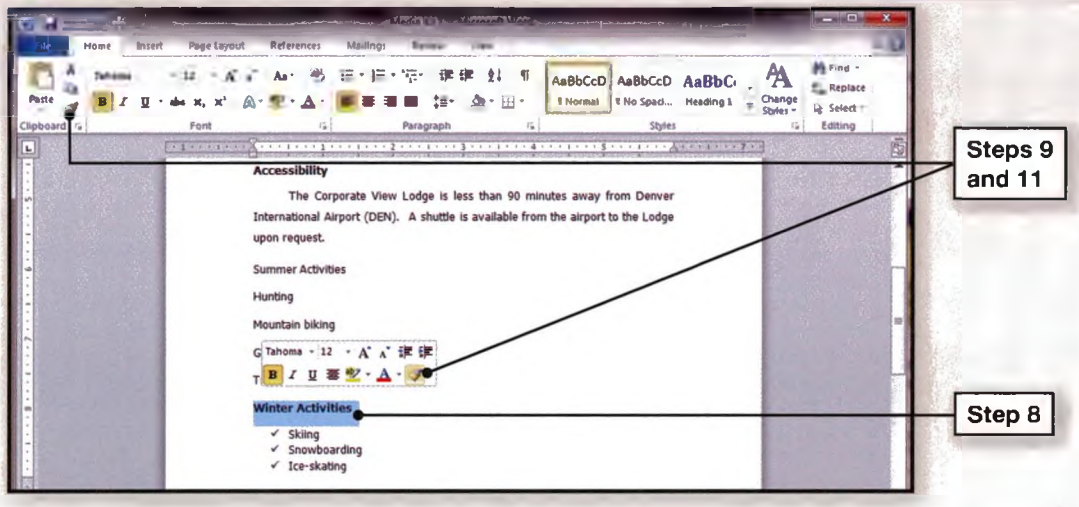


FIGURE 5-28
Format Painter Button

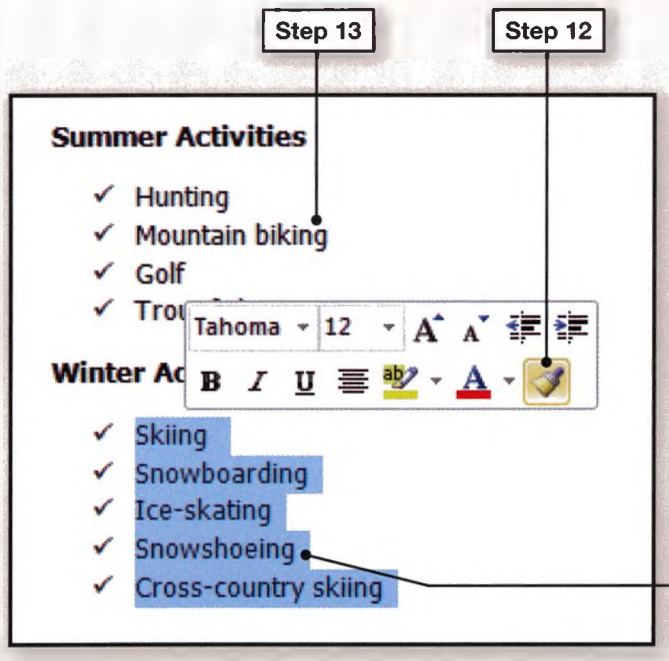


FIGURE 5-29 Formatting

10. Select the *Summer Activities* heading. As soon as you do, the *Winter Activities* formatting will be applied to the new side heading as seen in Figure 5-29.
11. Choose the words on the bulleted list under the *Winter Activities* heading, as shown in Figure 5-29.
12. Choose the **Format Painter** button.
13. Touch and drag over the four items under *Summer Activities* and turn them into a bulleted list (using check marks), as seen in Figure 5-29.
14. Save your ***Media Kit 2*** file in your ***Chapter 5*** solutions folder. Leave the document open for the next activity.

DIGITAL SNAPSHOT

Smart Tags

You will often see little markings below a word you have copied and pasted. These are called *Smart Tags*. You can click or tap on the Smart Tag to reveal the formatting applied to that particular word or paragraph that has been pasted. You can make changes by clicking the down arrow (or you can tap the Ctrl key). The options include:

- *Keep Source Formatting:* Keep the copied text's formatting and apply it to the pasted text.
- *Merge Formatting:* Merge the text into the document with the formatting in the existing text.
- *Keep Text Only:* Copy the text as is; let Word apply the formatting it thinks best fits the text.



DIGITAL SNAPSHOT 5.1
Smart Tags

APPLY STYLES TO YOUR MEDIA KIT

Styles are fun ways to liven up plain text documents. In Microsoft Word, many styles have been created in advance and can be found in style galleries. Styles define how the various parts of the document should look. Some very clever people at Microsoft have developed distinctive styles for titles, side headings, and text inside a document. In the next activity, you will try a few of their creations.

Styles can be enhanced by applying different color schemes. A color scheme is a set of complementary and contrasting colors that look good together.

Activity 5-11 ADD STYLE TO YOUR MEDIA KIT



FIGURE 5-30
Color Scheme Menu

1. If necessary, reopen the ***Media Kit 2*** file from your ***Chapter 5*** solutions folder.
2. Save a copy of your file as ***Media Kit 3 Add Styles*** in your ***Chapter 5*** solutions folder.
3. Choose the **Change Styles** button from the Home tab's *Styles* group. Point to **Colors**, and choose a color scheme such as Apex, Opulent, or Technic as seen in Figure 5-30.
4. Choose the **Change Styles** button again. This time choose **Style Set**, and then choose one of the styles such as Modern, Classic, Elegant, or Distinctive from the list as shown in Figure 5-31.

If you make a mistake or change your mind, use the *Undo* command located in the Quick Access Toolbar. If you need to reverse the action, choose the *Redo* button again.

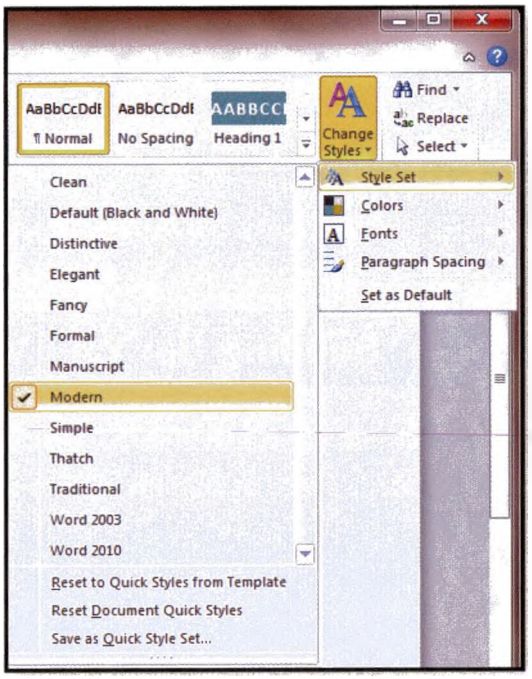


FIGURE 5-31
Style Set Menu

5. Choose the title of your media report by selecting the top two lines.
6. Choose **Heading** 1 from the *Styles* group.
7. Select each side heading, and then choose the **Heading 2** style from the *Styles* group. Change the following side headings to a **Heading 2** style: *Our Mountain Retreat*, *Contact Information*, *Accessibility*, *Summer Activities*, and *Winter Activities*. (See Figure 5-32.)

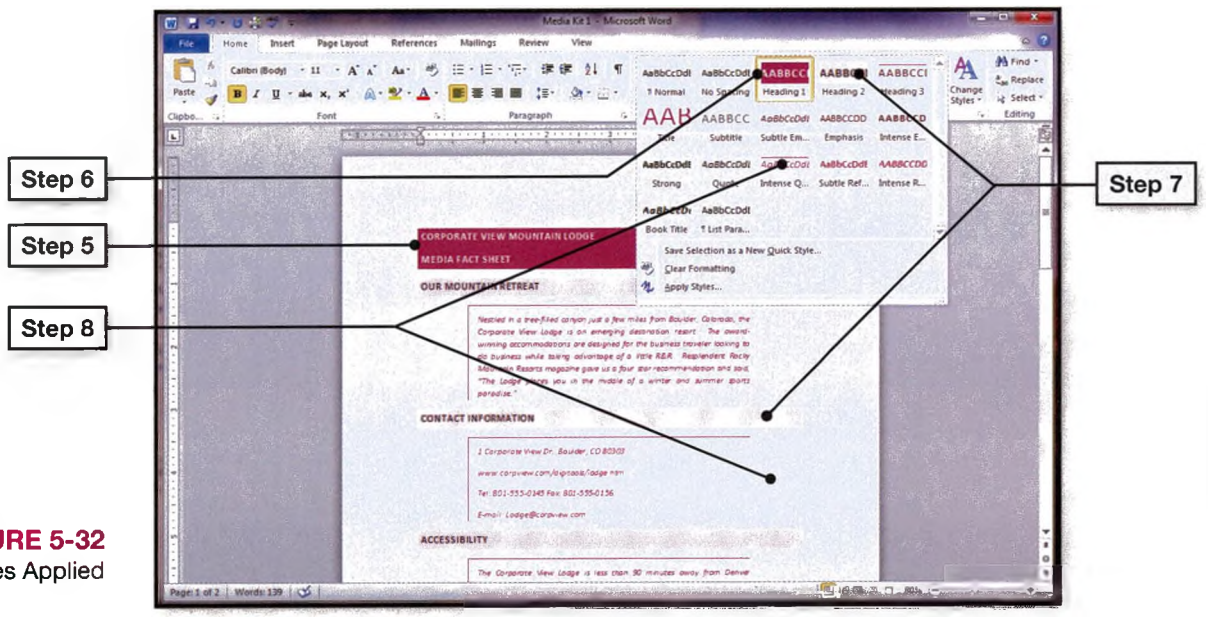


FIGURE 5-32
Styles Applied

8. Choose the paragraphs below the side headings and then choose an appropriate style for these paragraphs, as shown in Figure 5-32. (To see all of the style options, select the **More** drop-down arrow to the right of the styles shown.)

INSTANT MESSAGE

To select more than one side heading, list item, or paragraph in different places of the document, hold down the Ctrl key while selecting them one by one until each has been chosen.

9. Change the styles and color schemes (as explained in steps 3 and 4). Watch what happens as you try new options. Find the scheme and style that you like best.
10. Use the **Full Screen Reading** option to see the result of your efforts.
11. Add the following information to the bottom of your media kit.
    Environmental Commitment
    We are committed to preserving and enjoying the natural wonders of Colorado. Nestled in nature, the Lodge has implemented green environmental standards. All the rooms have been remodeled with eco-friendly recycled building materials. The rooftop solar panels provide power on sunny days. Electricity for dark days comes from the Windy Flats windmill project on the Colorado plateau. A recent hillside reforestation project earned the Colorado Environmental Business of the Year award.
12. Change the font, style, and color scheme of the newly added text to match the rest of your document.
13. Resave your ***Media Kit 3 Add Styles*** file in your ***Chapter 5*** solutions.

Activity 5-12 ADD TEXT STYLES AND COLORS TO YOUR BOOK REPORT

1. Reopen the ***Book Report 1*** file from your ***Chapter 5*** solutions folder.
2. Change the styles and color schemes (as explained in Activity 5-11). Find a color scheme and style that you like for your report.
3. Use the **Full Screen Reading** option to see the result of your efforts.
4. Save your document as ***Book Report 2 Add Styles*** in your ***Chapter 5*** solutions folder.

LESSON 5-4 Format Business Documents

IN THIS LESSON YOU WILL:

Objectives

1. Apply and alter default fonts.
2. Edit and apply reviewing tools.
3. Create and sort numbered and alphabetic lists.
4. Set tab markers, align a document vertically, and add a watermark.

Key Terms

chronological order
numbered list
tab markers
Thesaurus
watermark

MEMORABLE MEMOS

TravelView is trying to create a top-flight destination resort at its Mountain Lodge location. But there is a big problem! Customer surveys say that the name *Corporate View Lodge* is uninteresting—boring, actually. The name does not describe a place people would be

excited to visit for a weekend of rest and relaxation (R&R). The name paints a poor image to its audience of potential vacationers.

TravelView wants the Corporate View Board of Directors to provide the funds to change the name and to launch a new branding and marketing campaign. The Corporate View CEO, Madeline Tucker, has asked that a brief memo be prepared to inform the board of directors of the Lodge's image problem. You are going to help TravelView prepare its memo to the board.

A memo (once called memorandum) can be used for announcements, requests, and short reports or as handouts for meetings. It also serves as a simple letter style. Additionally, it is a little-known secret that the memo format gave birth to today's e-mail message.

Activity 5-13 CREATE A MEMO

1. Open Microsoft Word and a blank, new document.
2. Create a memo like that shown in Figure 5-33, using the many skills you learned in the previous lessons.

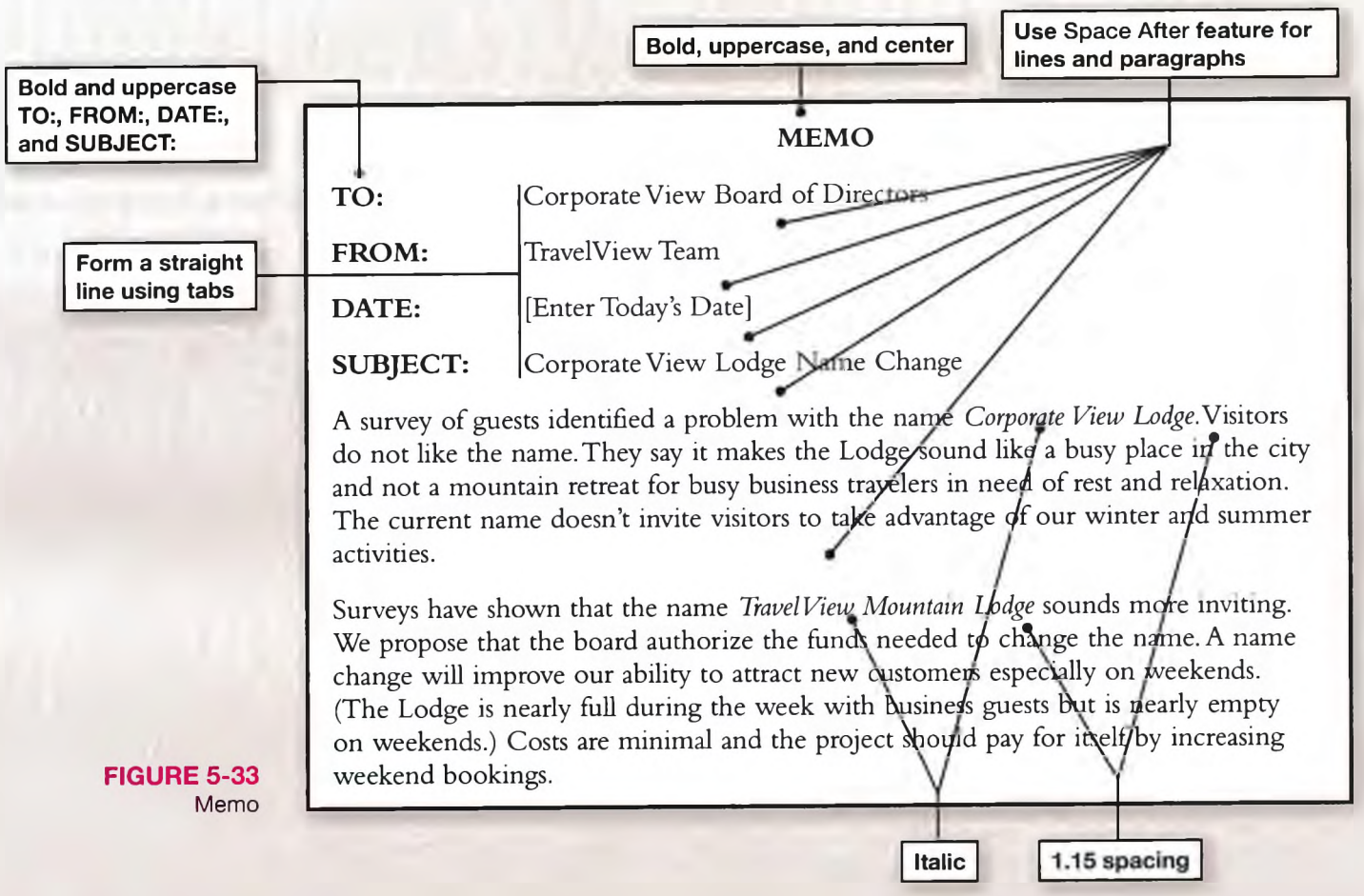


FIGURE 5-33
Memo

3. Make the following improvements to your memo as marked in Figure 5-33:
   - Make sure your entire memo is in an attractive font.
   - Uppercase and bold the heading words: **MEMO**, **TO:**, **FROM:**, **DATE:**, and **SUBJECT:**.
   - Use the Tab key to create a straight line for the information following the heading words as marked in Figure 5-33.
   - Use italic for the titles *Corporate View Lodge* and *TravelView Mountain Lodge*.
   - Justify the last two paragraphs.
   - Set the spacing in the last two paragraphs to 1.15". You may notice only a slight change.
   - If necessary, use the Space After command to control the spacing after heading words and after paragraphs.
4. Save the memo as ***Memo 1*** in your ***Chapter 5*** solutions folder, and then close the file.

WHAT HAPPENS WHEN A MEMO FALLS SHORT

The CEO of Corporate View, Madeline Tucker, was disappointed with Memo 1. Using the New Comment feature, she wrote, "Lacks details!" and added other suggestions on how to improve the memo. Read and begin to act on her comments by completing the next activity.

Activity 5-14 READ AND DELETE COMMENTS AND MAKE CHANGES

1. Open ***Memo 1 Comments from MT*** from the data files for this chapter.
2. Choose the **Review** tab, and review the names of the various groups on this tab.
3. Choose **Next** from the *Comments* group to move forward from comment to comment.
4. Choose **Previous** to back up through the comments one by one.
5. After you have finished reading each comment, choose **Next** and then the **Delete** command (shown in Figure 5-34), and delete each comment one at a time as marked in Figure 5-34.



Choosing just the right word to describe something is very important. Fortunately, the **Thesaurus** lists alternative word choices. It is an essential tool for improving the accuracy of your statements and the readability of your writing.

6. Choose the word **minimal** as shown in Figure 5-34.

FIXING THE MEMO

It's true; Memo 1 fell short. It did a fine job of providing the audience with a general overview of the problem; however, it did not follow up with specific details about how much it would cost to fix the Lodge's image problem. Ms. Tucker knows her board of directors will not approve anything without knowing the overall impact on the company's bottom line (or potential profit or loss). It is up to you to add the details outlined in Ms. Tucker's comments. You must strengthen the case for the name change and make your memo an all-around better document.

You will begin by inserting a date field that will be automatically updated. Any document that tracks business activities needs to be dated accurately. If you use Word's Insert Date feature, the date will automatically be updated by your computer every time you open the document—ensuring that the memo is always accurate.

Activity 5-15 INSERT AUTOMATIC DATE

1. If necessary, reopen your copy of the ***Memo 2 Add Details*** file and then choose the **Insert** tab.
2. Select and delete the date in your memo.
3. Choose the **Date & Time** button from the *Text* group. (See Figure 5-36.)
4. Choose the date format that displays the month, date, and year (for example, ***May 10, 2012***).
5. Click the **Update automatically** check box.

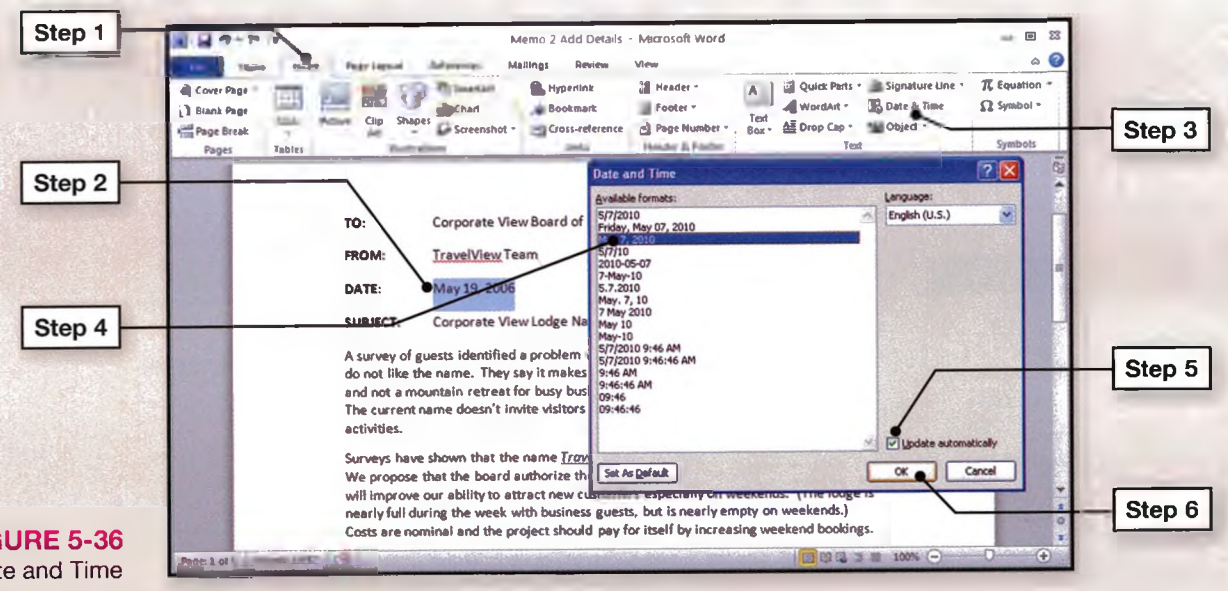


FIGURE 5-36
Insert Date and Time

6. Choose **OK** to insert the selected date and/or time.
7. Resave your updated memo in your ***Chapter 5*** solutions folder, and leave it open for the next activity.

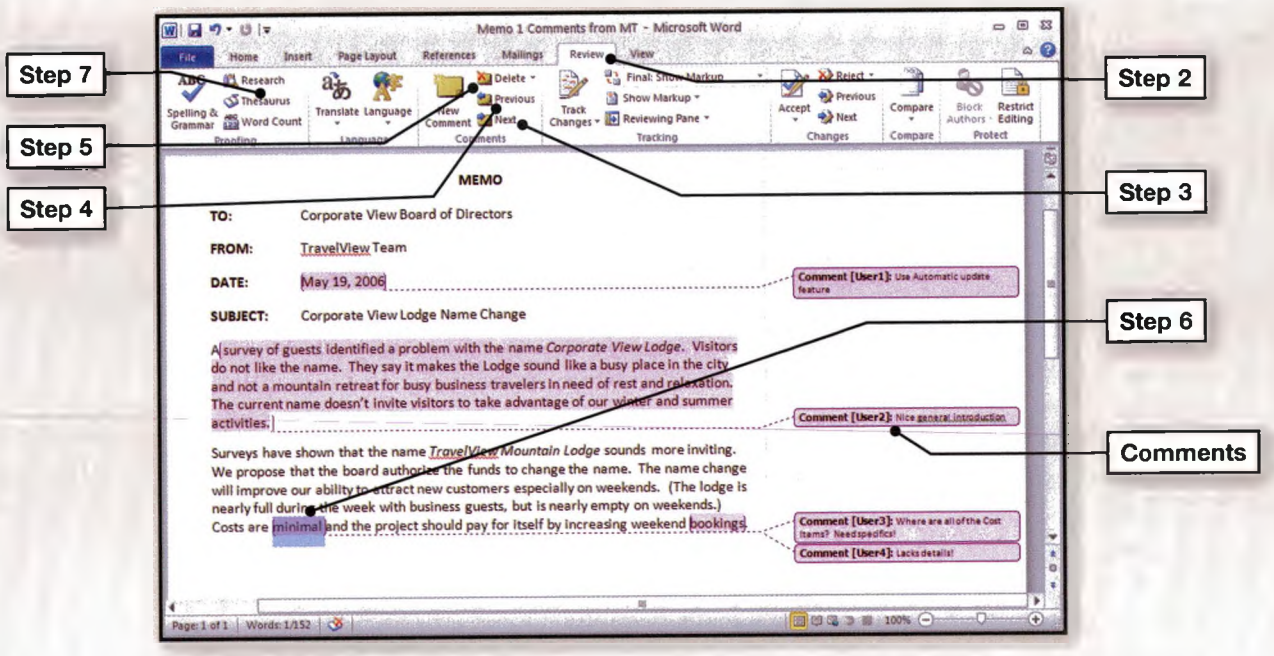


FIGURE 5-34 Review Tab's Features

7. Choose the **Thesaurus** button marked in Figure 5-34. This will open the Research task pane and the Thesaurus, which provides alternative word choices for the selected word. (See Figure 5-35.)

8. Hover over the word *nominal* in the Research task pane. When the down arrow appears next to the word, choose the arrow followed by **Insert**, as seen in Figure 5-35. (*Note:* This will move the word *nominal* into your document, replacing the word *minimal*.)

9. Choose the **Close** box at the top of the Research task pane to close it.

10. Save a new version of the memo by choosing the **File** button and selecting **Save As**. Key **Memo 2 Add Details** in the *File name* text box and choose **Save**. Leave the document open for the next activity.

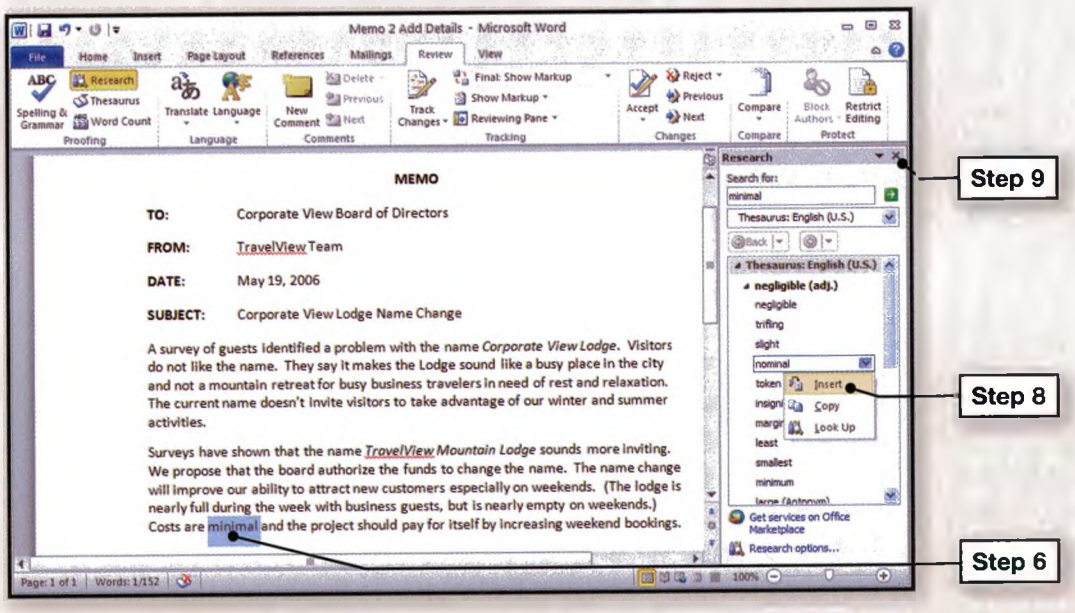


FIGURE 5-35
Research Pane

NUMBERED LISTS

A **numbered list** is used instead of a bulleted list:

- When prioritizing items (like a scale from 1 to 10).
- For step-by-step items (do this step first, this step second, etc.).
- When items are to be completed in a specific **chronological order**. Chronological order is determined by date (as in a historical timeline).

Numbered lists meet many of the dynamic keys of effective digital communication. They are visually appealing, provide easy access to information, and make detailed information more readable. Numbered lists can also have subordinate levels that provide more specific details for the general items in a list, as shown in Figure 5-37.

Activity 5-16 CREATE A NUMBERED LIST

1. If necessary, reopen your ***Memo 2 Add Details*** file. Go to the bottom of your memo and add the following items:

   COST ITEMS

   New signs for the Lodge

   New website

   Marketing campaign

   Reprinting of business documents

   Letterhead

   Brochures

   Rate cards

   Business cards

   TOTAL

2. Uppercase and bold the words *COST ITEMS* and *TOTAL*. Center just the title *COST ITEMS* as shown in Figure 5-37.
3. Select the list of words from *New signs for the Lodge* down to *Business cards*.
4. Choose the **Numbering** button from the *Paragraph* group on the Home tab as indicated in Figure 5-37. This will number each item from 1–8.
5. Select the bottom four items in the list starting with *Letterhead* and ending with *Business cards*.
6. Choose the **Increase Indent** button from the Mini Toolbar or from the *Paragraph* group. This will make these four items subordinate to item number 4. They will be labeled *a*, *b*, *c*, and *d* as seen in Figure 5-37.

INSTANT MESSAGE

If you indent too far, choose the Decrease Indent button to move text back.

DigiTip

Sort alphabetically: When you have a list of items that are of equal value (when no single item is more important than the others), you should sort them alphabetically. This is done with the Sort feature.

INSTANT MESSAGE

If main items are indicated by numbers (1, 2, 3, etc.), subordinate items can use letters (such as a, b, and c) as seen in Figure 5-37.

7. Select the bottom four items in the list again starting with *Letterhead* and ending with *Business cards*. (See Figure 5-37.)
8. Choose the **Sort** button from the *Paragraph* group on the Home tab.
9. Sort alphabetically by making sure **Paragraph** appears in the *Sort by* text box and the **Ascending** radio button has been picked, and then choose **OK**.

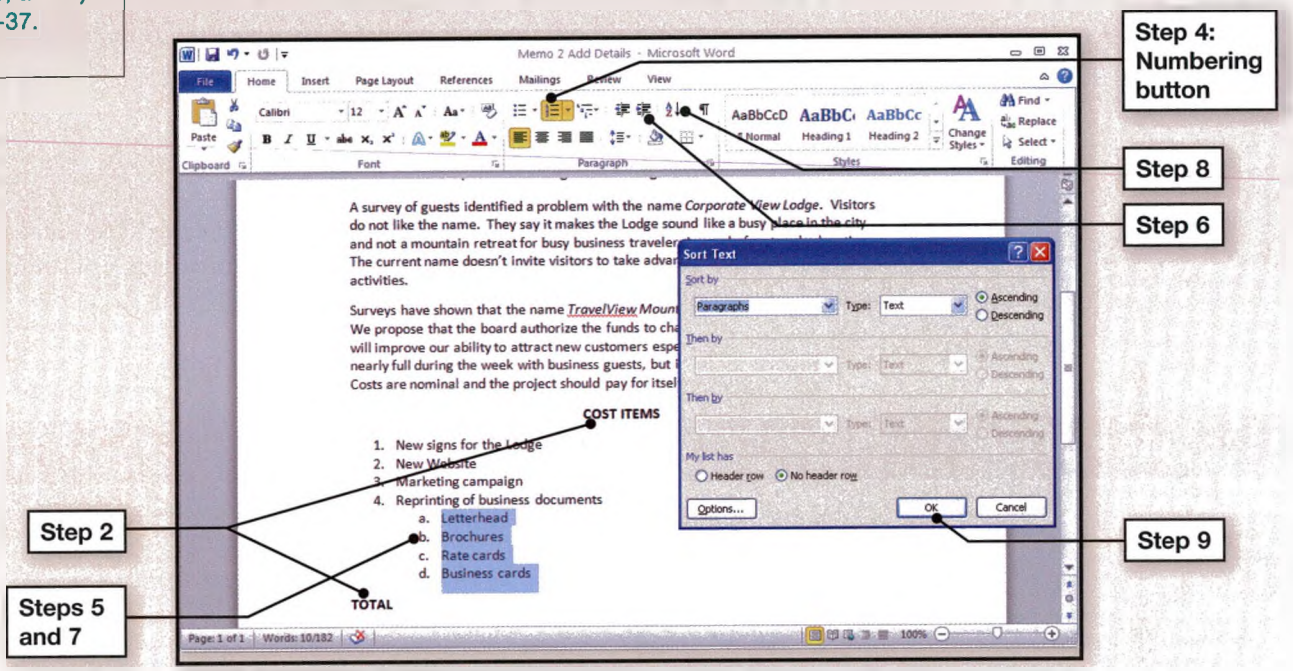


FIGURE 5-37 Sort Text

10. Resave your ***Memo 2 Add Details*** file, and leave it open for the next activity.

SET TAB MARKERS ON THE RULER

Tab markers can be used to add specific details without cluttering up a page. With tab markers, you can organize data in columns. To do so, you must learn about Word's Ruler and the different types of tab markers, which are described in more detail in Table 5-2.

	The **Left** tab aligns text flush against the left side of wherever this tab is placed.
	The **Right** tab aligns text flush against the right side of wherever this tab is placed.
	The **Decimal** tab aligns numbers at the decimal point based on the location of this tab.
	The **Center** tab centers text at the tab.

TABLE 5-2
Tab Markers

Activity 5-17 MARKING YOUR MEMO WITH TABS

INSTANT MESSAGE

If you make a mistake, click or tap on a tab marker and drag it to the left or right. A line will appear, as seen in Figure 5-38, to help you position the marker. To remove a tab marker, drag it straight down off the Ruler.

1. If necessary, reopen the ***Memo 2 Add Details*** file from your ***Chapter 5*** solutions folder.
2. Make the Ruler appear, if necessary, by choosing the **View** tab and placing a check mark in the **Ruler** box. Then pick the **Home** tab to continue.
3. Select the list of words from *New signs for the Lodge* down through and including *TOTAL* as seen in Figure 5-38. (*Note:* The tab markers you will set in the next few steps apply only to the text you have just selected.)
4. Click or tap on the Tab Marker selection box (in the upper-left corner of the document screen, to the left of the Ruler) until you come to the **left tab** marker.
5. Click or tap on the **3.5** inch mark on the Ruler to place a left tab marker at that location. (*Note:* This will line text tabbed to this location flush left from this imaginary line.)

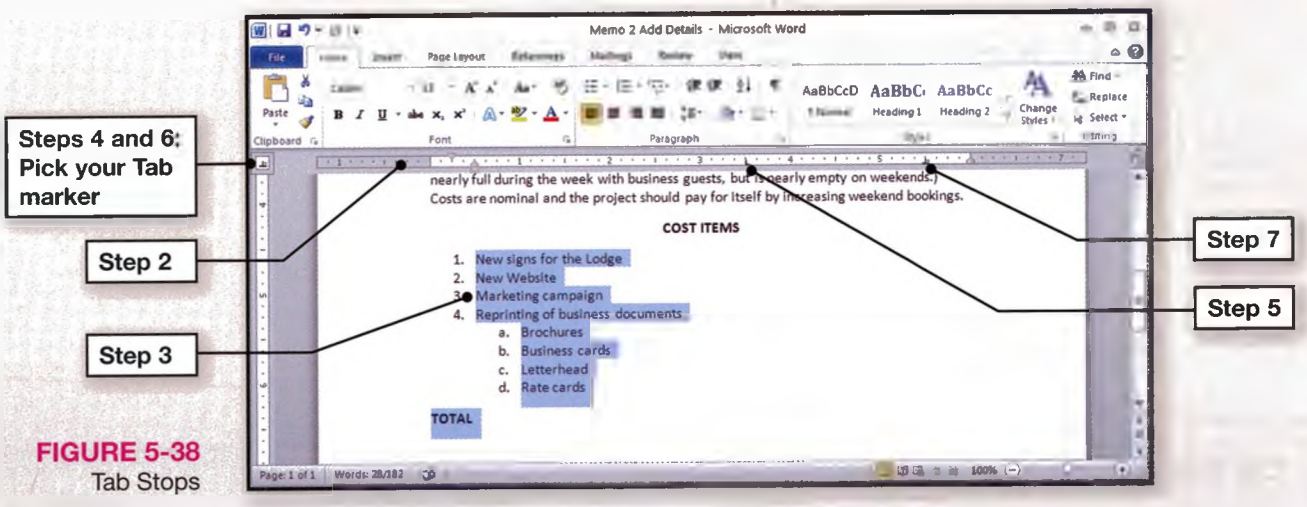


FIGURE 5-38
Tab Stops

6. Click or tap on the **Tab Marker** selection box until you come to the **Decimal Tab** marker.
7. Click or tap at the **5.5** inch mark on the Ruler to place the Decimal Tab marker at this location. (*Note:* This will line any number to this imaginary line on the decimal point.)

DigiTip

Caution! Do *not* tap the Enter key to move your insertion point to the end of each line before tabbing. Instead, click your mouse, touch the screen, click your pen, or use the arrow keys on your keyboard to move to the correct position.

8. Activate the **Show/Hide** button to show the paragraph, tab, and spacing markers seen in Figure 5-39. (Review Activity 5-7 to refresh your memory on the Show/Hide button.)

9. Place your insertion point after the word *Lodge* in the *New signs for the Lodge* paragraph, and tap the **Tab** key. (See Figure 5-39.)

10. Key the date **May 15, 20??**. (*Note:* Replace *??* with the current year, such as *2012*.)

11. Tap the **Tab** key, and key the number **$15,000.00**.

12. Repeat steps 8–11 so that all of the data in Table 5-3 is added to the memo.

TABLE 5-3
Data for Your Document

COST ITEMS		
1. New signs for the Lodge	May 15, 20??	$15,000.00
2. New website	May 30, 20??	$3,000.00
3. Marketing campaign	June 1, 20??	$10,000.00
4. Reprinting of business documents		
a. Brochures	June 7, 20??	$1,200.00
b. Business cards	June 7, 20??	$350.00
c. Letterhead	June 7, 20??	$750.00
d. Rate cards	June 7, 20??	$200.00
TOTAL		**$30,500.00**

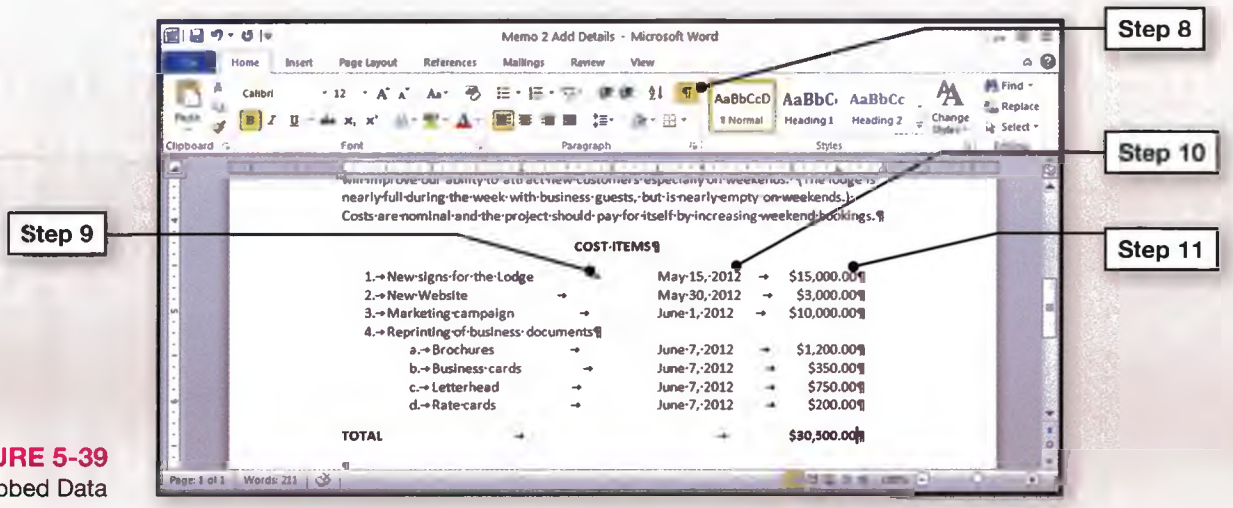


FIGURE 5-39
Tabbed Data

13. Resave your ***Memo 2 Add Details*** file, and leave it open for the next activity.

DigiTip

Center vertically: Aligning your text vertically from top to bottom will place the same empty space at the top as it does at the bottom. This will give your document a more professional look.

INSTANT MESSAGE

Open dialog boxes by clicking or tapping the tiny buttons seen at the bottom right-hand corner of a group.

1. If necessary, reopen the ***Memo 2 Add Details*** file from your ***Chapter 5*** solutions folder and turn off the **Show/Hide** option so you can view how the document will look when it is printed without the paragraph, tab, and space markers.
2. Use the **Zoom** tool on the Status bar to zoom your document to 70% or 60% so you can see the impact of the changes you are going to make in the next few steps.
3. Choose the **Page Layout** tab, and choose the **Page Setup** dialog menu button in the bottom right-hand corner of the *Page Setup* group. (See Figure 5-40.)
4. Choose the **Layout** tab in the Page Setup dialog box as shown in Figure 5-40.
5. Choose the **Vertical alignment** down arrow and choose **Center** from the list. (See Figure 5-40.)
6. Choose **OK** to close the dialog box.

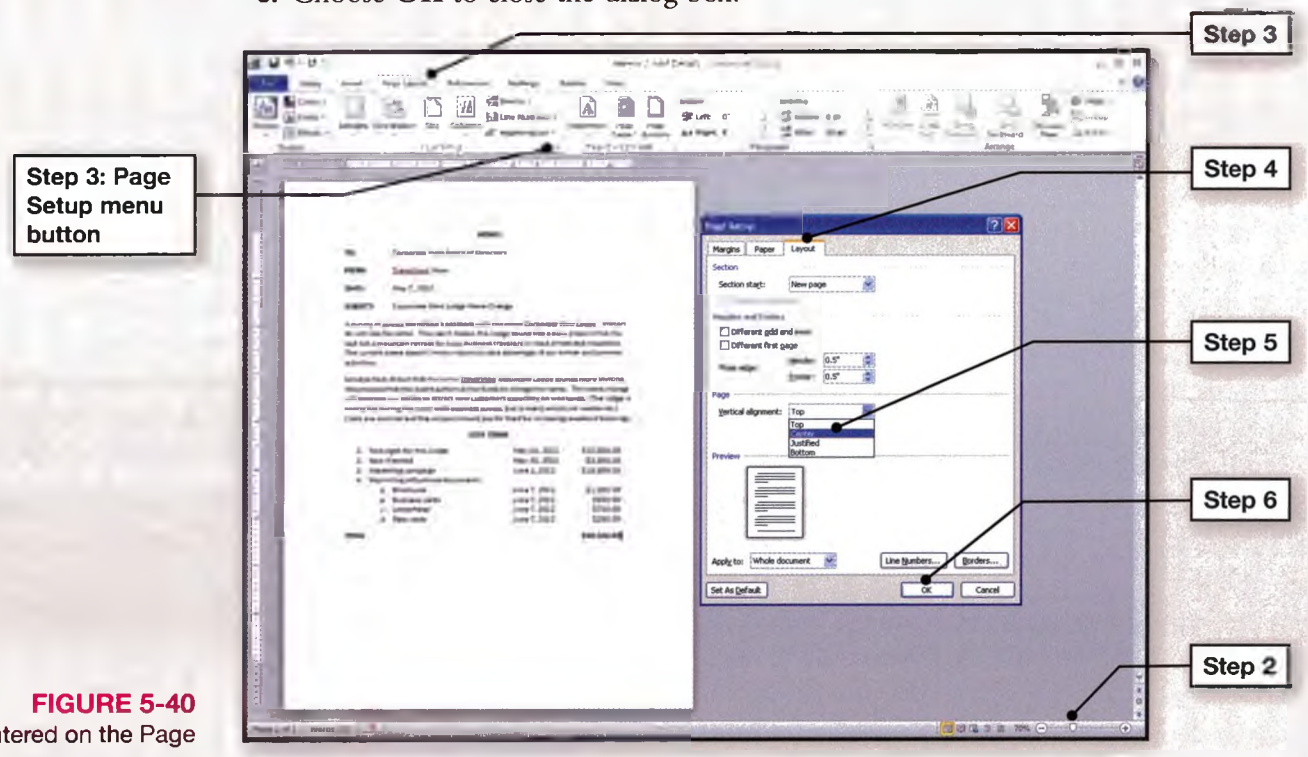


FIGURE 5-40
Memo Centered on the Page

DigiTip

A **watermark** is a shadowy word or phrase that appears behind your document. Watermarks are often used to mark a document as *confidential* or as a *draft*. A memo might be marked as confidential if it needs to be kept private or secret.

7. Choose the down arrow on the **Watermark** button from the *Page Background* group on the Page Layout tab. (See Figure 5-41.)

8. Choose **Confidential 1** from the list of choices as seen in Figure 5-41.

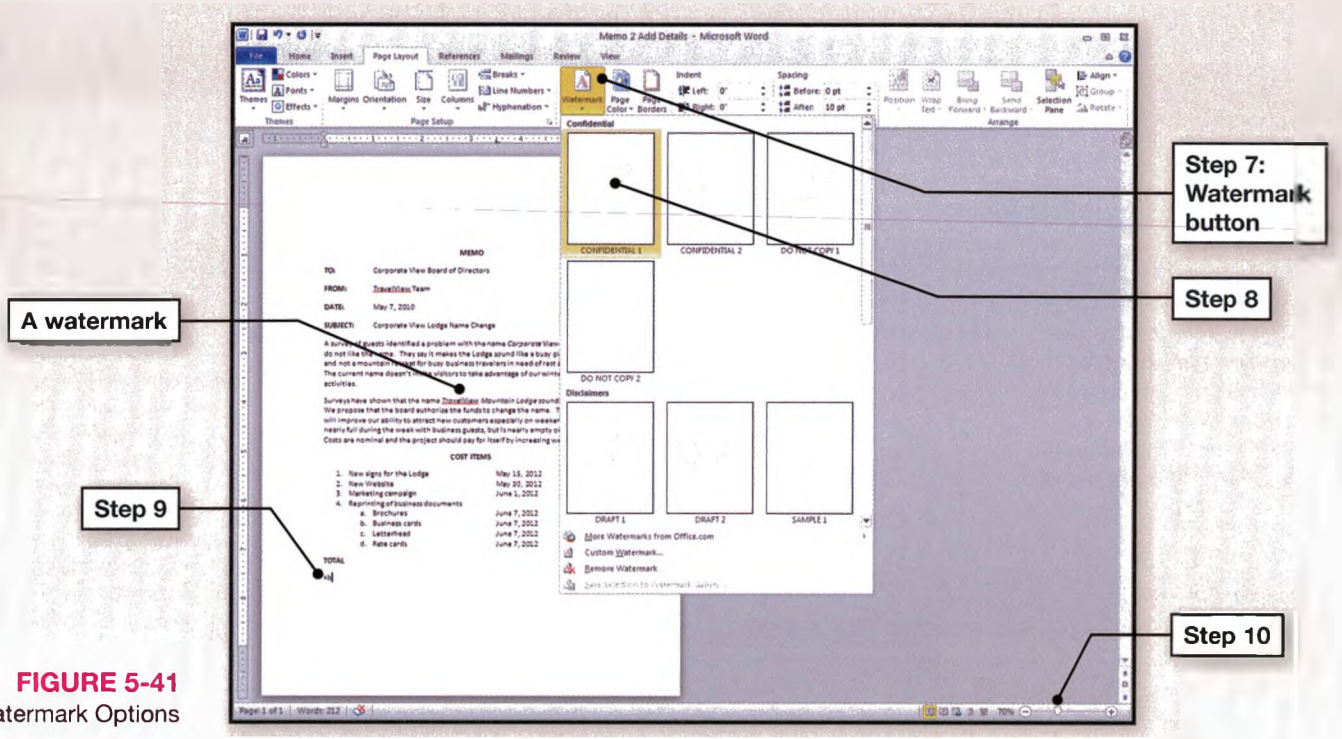


FIGURE 5-41
Watermark Options

INSTANT MESSAGE

If your initials appear bolded, remove the bold by selecting your initials and choosing the Bold button.

9. Now that you have finished your memo, add your initials (in lowercase letters) to the bottom of the page as seen in Figure 5-41.

10. Zoom back to 100% from the **Zoom** tool on the Status bar.

11. Add the following additional paragraph dictated by the CEO, Madeline Tucker, to the bottom of your memo just above your initials.

    I also request that the Board add $100,000 to this plan in order to upgrade the broadband system in the Lodge. We must meet the needs of traveling executives looking for a remote mountain retreat while also requiring fast and flawless online connections from every room and lounge area. Busy business executives must stay connected with their business contacts. Today we need a Lodge that is natural and environmentally friendly, yet connected to the Net.

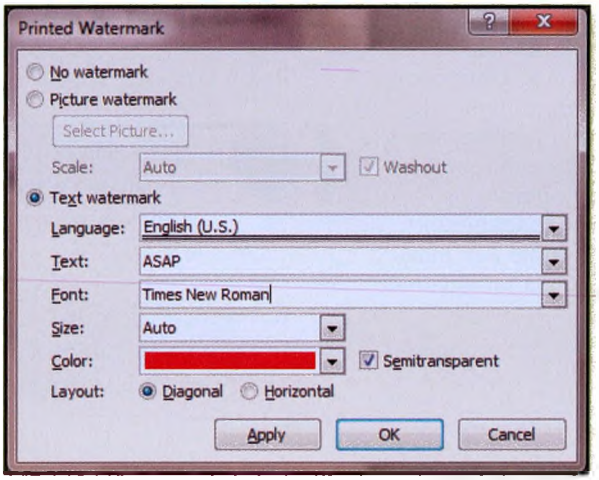
12. Save your memo as ***Memo 3 Final Draft*** in your ***Chapter 5*** solutions folder, and then close the file.

DIGITAL SNAPSHOT

Custom Watermarks

A watermark is a semitransparent set of words or an image barely visible behind the text of your document. A number of commonly used watermarks are available in a gallery of options. You can also customize your own watermarks. To create your own watermark:

1. Click the Page Layout tab, or choose the **Watermark** down arrow from the *Page Background* group.
2. Choose **Custom Watermarks** to open the Printed Watermark dialog box.
3. Choose **Text watermark**. (See Digital Snapshot 5.2.)
4. Key whatever words you wish in the *Text* field.
5. Change the color in the *Color* field.
6. Choose to have the watermark appear diagonally.
7. Choose **OK** to apply the watermark, and close the dialog box.



DIGITAL SNAPSHOT 5.2 Printed Watermark Options

Before you insert a fancy new watermark, make sure you delete any previous ones by selecting the **Watermark** down arrow followed by **Remove Watermark**. Otherwise, you will have two watermarks showing.

LESSON 5-5 Correct and Format Business Correspondence

IN THIS LESSON YOU WILL:

Objectives

1. Interpret and apply proofreader marks.
2. Apply the following letter formats:
   - Block with mixed punctuation
   - Modified block with mixed punctuation
   - Block with open punctuation
3. Address and attach an envelope to a letter

Key Terms

centerline
correspondence
modified block style
open punctuation
proofreader marks

ACCURACY MATTERS

The eighth principle of dynamic digital communication is *Proofing & Accuracy*. Steer clear of errors. Mistakes—like spelling errors and improper formatting—can create doubt in the minds of your audience members. Readers may think that if your presentation is less than professional, perhaps the information you are presenting is inaccurate or unimportant. So as you write, consider this:

> *You may have the best ideas in the world, but without proper formatting and proofing, your message may be lost.*

To prevent this from happening to your message, you will learn how Microsoft Word can assist you in proofing for accuracy. You will also learn how to proof beyond what Word can do for you and how to work with others to improve the delivery of your message. (Read *Ethics: Classy Constructive Criticism.*)



ETHICS

Classy Constructive Criticism

Criticism of any kind can be painful. Even when the most well-intentioned person offers advice, it can feel like an insult and a negative reflection on your abilities. After all, it is your work being criticized!

Every author, journalist, movie director, artist, website developer, or media specialist in the world receives criticism. How constructive criticism impacts you is up to you. It is how *you* react that will make you either *bitter* or *better.* The best approach is to turn criticism into collaboration. Ask yourself the following questions:

- Is this person trying to help me?
- Does this person want me to be successful?

If the answer to those questions is yes, rise above the negative feelings and show your class. Showing class means:

- Making eye contact and being interested in what your critic has to say.
- Listening intently and trying to figure out what your critic is trying to communicate to you.
- Saying something like "That makes sense; I didn't think of that" or "I like that idea."
- Repeating to your critic what you think you heard and making sure you are on the same page.
- Avoiding negative comments about the person who just shared constructive criticism with you. (After all, it may have been difficult for him or her to bring up the criticism in the first place.)
- Trying to take the person's input and improving your work.
- Thanking the person who gave you the criticism.

COLLABORATION TOOLS AND PROOFREADER MARKS

Microsoft Word offers many ways for people to collaborate. For example, in Activity 5-14, when Madeline Tucker used the Comments feature in the *Memo 1 Comments from MT* file, she was helping a team improve its digital communication skills in a constructive way. There is another tool she could have used to accomplish this task. It is a tool that has been used for centuries to mark corrections: the *dreaded red pen*!

The marks in Table 5-4 are called **proofreader marks**, and they are used to mark mistakes for correction. Memorize these basic marks. While in the past, they were used only on paper documents, they can now be made with electronic digital pens. So you probably will not be able to escape them! (See Appendix C.)

TABLE 5-4 Proofreader Marks

Mark	Meaning	Mark	Meaning
||	Align copy; also, make these items parallel	ℓ	Delete
¶	Begin a new paragraph	<#	Delete space
Cap ≡	Capitalize	No¶	Do not begin a new paragraph
⊂	Close up	^	Insert

(*continued*)

TABLE 5-4 Continued

Mark	Meaning	Mark	Meaning
#>	Insert space	⌴	Move down; lower
✓	Insert apostrophe	⊂	Move left
stet	Let it stand; ignore correction	⊃	Move right
lc	Lowercase	⌐	Move up; raise
✓	Insert comma	CAP	Spell out the word
⊙	Insert period	tr	Transpose; turn the letters or words around
✓	Insert quotation mark	———	Underline or italicize

MAKING CORRECTIONS TO CORRESPONDENCE

Examine the memo in Figure 5-42. It is a mess! Notice that many of the document's errors have been marked with digital ink using proofreader marks.

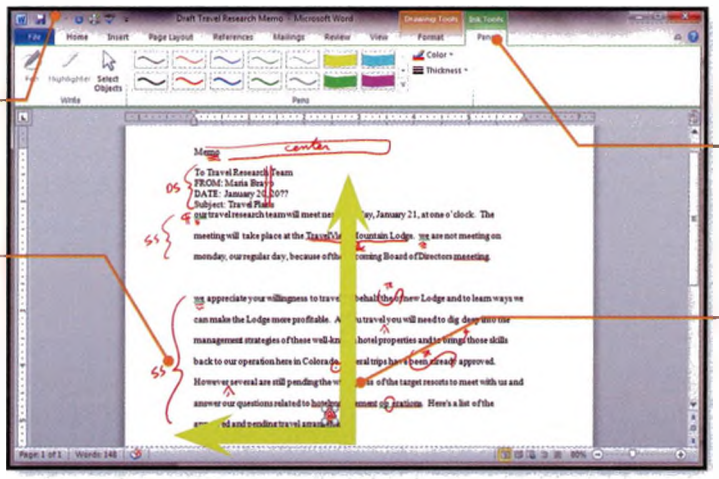


FIGURE 5-42
Memo with Proofreader Marks

INSTANT MESSAGE

Even if you do not have the inking tools needed to create proofreader marks yourself, you may still be able to read the marks created by others.

You may receive documents from your instructor with these important corrective marks. You will need to make the corrections and return a clean, edited document to your instructor. Making these corrections is as easy as the first four letters of the alphabet:

A. Start making corrections from the bottom right and work your way to the top left as seen in Figure 5-42. (If you start at the top, the corrective marks can change position in relation to the text.)

B. Click or tap a corrective mark until the sizing handles appear. (Sizing handles are the four little squares in the corners of the box.) After a mark has been selected, tap the **Backspace** or **Delete** key to eliminate it.

C. If you delete a corrective mark by accident, use Undo to restore it.

D. Word's Drawing and Ink tools will appear as Tabs with additional Ribbon options. Learn more in Appendix C about these tools that work best with tablet PCs, touch screens, and handwriting tablets.

Activity 5-19 FIX MESSY CORRESPONDENCE

1. If necessary, open Microsoft Word and then open ***Draft Travel Research Correspondence*** from the data files for this chapter.
2. Make the following repairs to your memo:
   - Make all the changes marked in red ink starting from the bottom right-hand corner and moving to the top of the page.
   - Fix any spelling and grammar errors.
   - Bold, uppercase, and center the word *memo*.
   - Uppercase and bold the four key heading words.
   - Uppercase the subject line.
   - Use tabs appropriately following the four key heading words.
   - Select the entire memo, and change the font to **Calibri 11** points.
   - Space the paragraphs correctly. Use Line Spacing to set line spacing in the two paragraphs to **1.15**. Add a space after the subject line and after the paragraphs.
   - Turn on **Show/Hide** paragraph marks, and delete any extra paragraph markers between paragraphs.
   - Include your initials at the bottom.
   - Center the document vertically.
   - Add a watermark that says **Confidential**.
   - Fix any last-minute spacing or other errors.
3. Save your file as ***Travel 1 Correspondence*** in your ***Chapter 5*** solutions folder.

LONG LIVE THE LETTER



iStockphoto.com/Monkey Business Images

Letters have been around for centuries. In fact, the term **correspondence** once applied primarily to letter writing. Today, correspondence has expanded to include a variety of electronic media. Starting with e-mail in the 1980s, text messaging in the 1990s, and video correspondence in the current decade, digital correspondence sparked a communication revolution, and traditional letter writing was used less frequently as a way to correspond.

However, letters are still critical documents in official situations. They have a formality and a certain authority lacking in e-mail messages. For instance, if you have a complaint about a product and desire a refund, letters are the perfect communications tool. Additionally, copies of the letter can become part of a legal record if there is a dispute in court. Here are other samples of important types of letters:

- Letters of introduction for resumes and applications (see Chapter 17)
- Letters of acceptance
- Letters of announcement
- Letters of appreciation
- Letters of follow-up
- Letters of collection for payment
- Letters of complaint
- Letters reporting progress
- Letters of sympathy
- Letters of resignation

DIGITAL SNAPSHOT

One Space or Two

A debate is raging among language arts teachers, technical writers, artists, and software engineers. No one, it seems, can agree on the answer to the following question: Should there be one space or two following punctuation marks at the end of sentences?

Two spaces after periods, exclamation marks, and question marks became the rule well over 100 years ago when typewriters were used to prepare correspondence. Typewriters moved forward the same amount of space for every letter keyed. There was little or no distinction between the skinny letter *I* and the fat letter *W*. To ensure that sentences did not appear to be running together, two spaces between sentences became the rule. And no one dared argue the point!

However, computers adjust the width between characters at the speed of electricity. So clever artists designed thousands of stylized fonts, each with its own unique look, characteristics, and distinctive style. Font designers try to ensure that each letter fits together in an easy-to-read way, so why bother putting in two spaces when one will do?

But it's not that simple. Technical writers emphasize the sixth key of dynamic digital communication—readability. They ask, "Is it easier for the reader to see the beginning of a new sentence with a single space or with a double space?" If your answer is two spaces, use two spaces. If a single space is your answer, use one space. But not everyone agrees with this simple solution, so ask your instructor what is preferred and why.

Regardless of your choice, *be consistent*. If you start using one space, you must continue with a single space throughout your document. If you start using two spaces, you must continue to use two spaces consistently.

YOU CAN FORMAT IT

In the previous activities in this chapter, you learned all the skills you need to complete the block style letter seen in Figure 5-43. Think of the following activity as a practice quiz where you can display all of the skills you have learned. Review previous activities and the online Skills Preview or previous lessons if you need a quick refresher. You can do this!

Activity 5-20 BLOCK STYLE LETTER WITH MIXED PUNCTUATION

1. Open a blank document in Word.
2. Key the letter shown in Figure 5-43, approving Keisha Takashi's travel to the Nez Perce Resort at Big Sky.
3. Turn on **Show/Hide** (in the *Paragraph* group) so that you can see any extra line spaces between paragraphs. Use the **Enter** key to create the additional spaces between the many parts of the letter. Use the **Backspace** or **Delete** key to remove any extra spacing.
4. Use a creative bullet (something other than a round dot) for the bulleted list. If necessary, select the first three lines of the list and remove the spaces after just those lines with the **Line Spacing** tools on the *Paragraph* group.

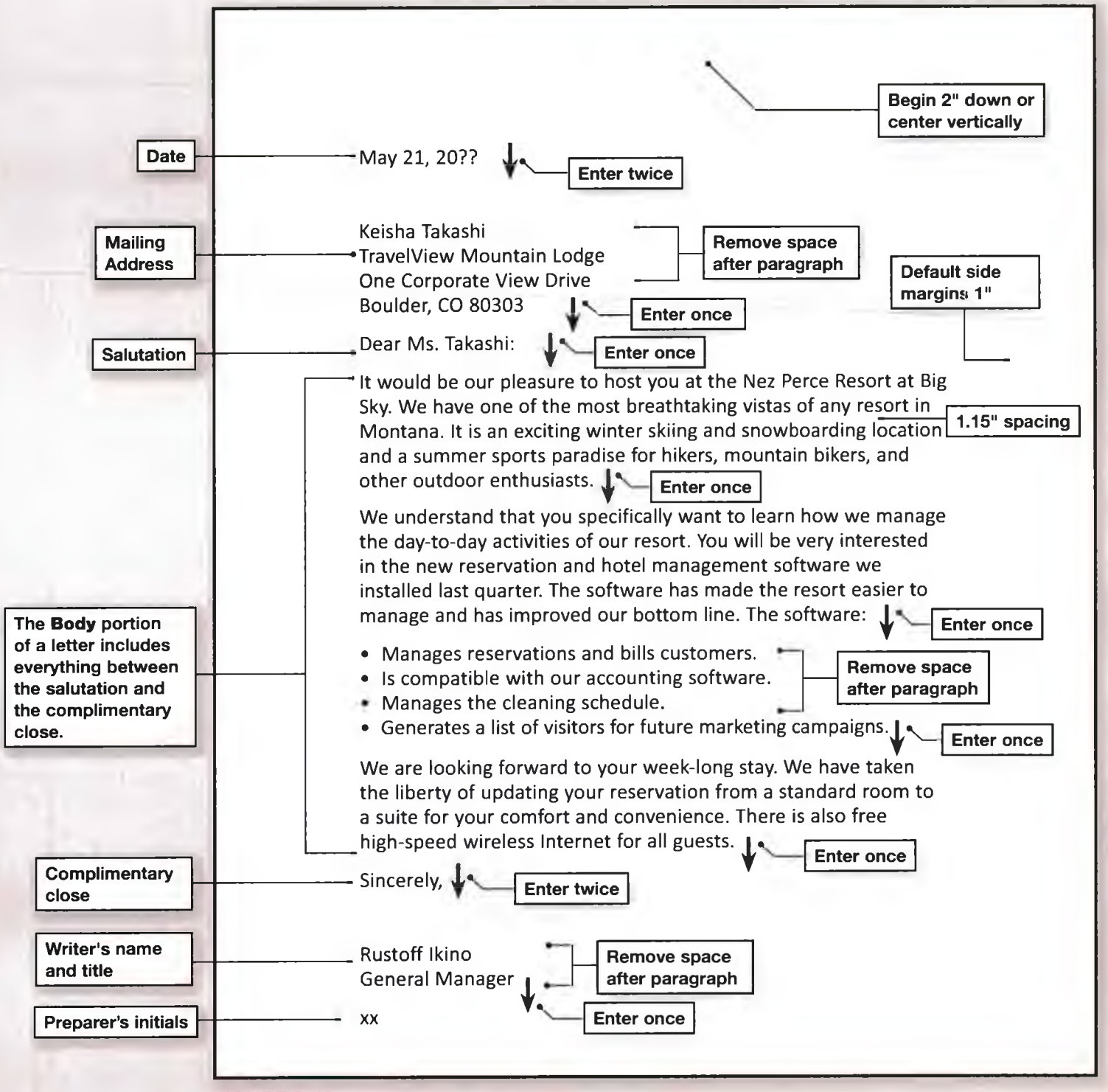


FIGURE 5-43 Keisha's Letter of Approval

5. Center the letter vertically. (See Activity 5-18 to review this skill.)
6. Space the paragraphs at **1.15** spacing.
7. Spell- and grammar-check the letter.
8. Save this document as ***Letter 1 Block Mixed*** in your ***Chapter 5*** solutions folder.

MODIFIED BLOCK STYLE

A **modified block style** letter allows more flexibility in its design. In this style, the left tab marker is placed directly on the **centerline** located 3¼" from the left margin. Some parts of the letter (including the date, the address block, and the complimentary close) are keyed to the right of the centerline. Using the centerline is different from centering using the Center button. This creates a different look and feel for the letter.

Activity 5-21 MODIFIED BLOCK STYLE LETTER

INSTANT MESSAGE

The View Ruler button above the scroll bar turns the Ruler on and off. Look for it. It is tiny, but you can spot it if you know where to look.

1. If necessary, open the ***Letter 1 Block Mixed*** file from your ***Chapter 5*** solutions folder.
2. Set a left tab marker in the center of the page by following these steps:
   a. Open the Ruler.
   b. Select the entire letter.
   c. Set a left tab marker on the 3¼ inch marker, which is the centerline, or middle, of the letter.
3. Place your insertion point in front of the date, and choose the **Tab** key to move the text to the centerline. Do the same for each line in the mailing address as seen in Figure 5-44.
4. Place the insertion point in front of the complimentary close, and choose the **Tab** key to move it to the centerline. Do the same for the writer's name and job title. (See Figure 5-44.)

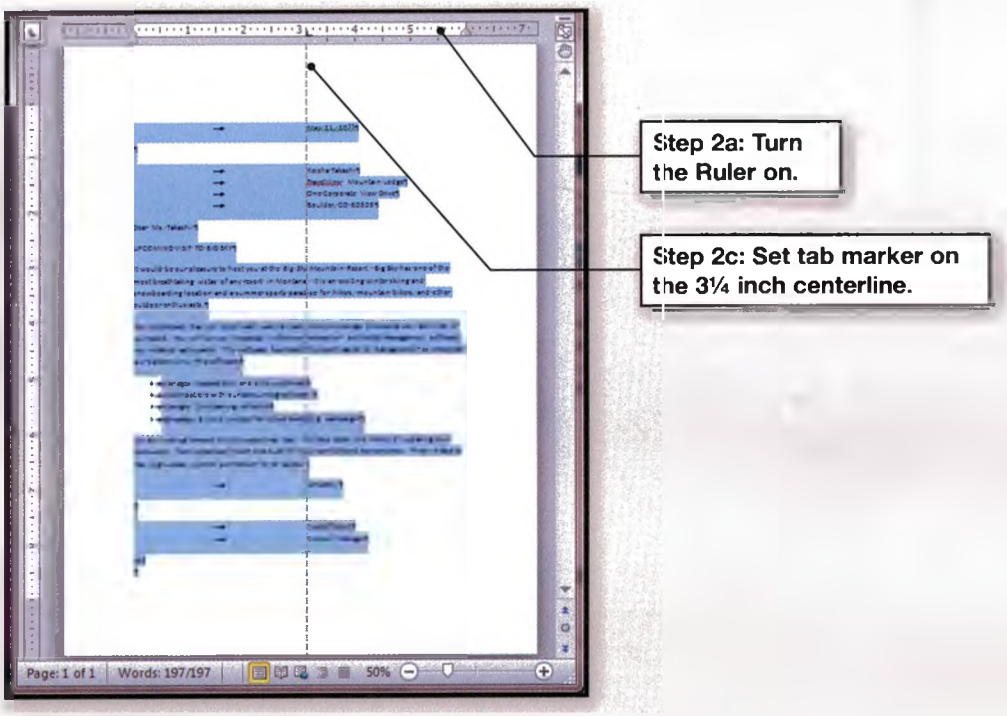


FIGURE 5-44
Modified Block Letter with Mixed Punctuation

5. Center the letter vertically.
6. Save this document as ***Letter 2 Modified Mixed*** in your ***Chapter 5*** solutions folder.

ADDRESS AN ENVELOPE

Envelopes allow you to keep your letters secret. Unlike e-mail messages, which can be read by almost anyone with the proper software, letters can be stamped, sealed, and even registered to be received only by the recipient. Fortunately, Microsoft Word has an easy way to address envelopes.

Activity 5-22 CREATE AN ENVELOPE

1. If necessary, open your ***Letter 2 Modified Mixed*** document from your ***Chapter 5*** solutions folder.
2. Create an envelope as seen in Figure 5-45:
   a. Choose the **Mailings** tab.
   b. From the *Create* group, choose **Envelopes**.
3. In the Envelopes and Labels dialog box, choose the **Envelopes** tab as marked in Figure 5-45.

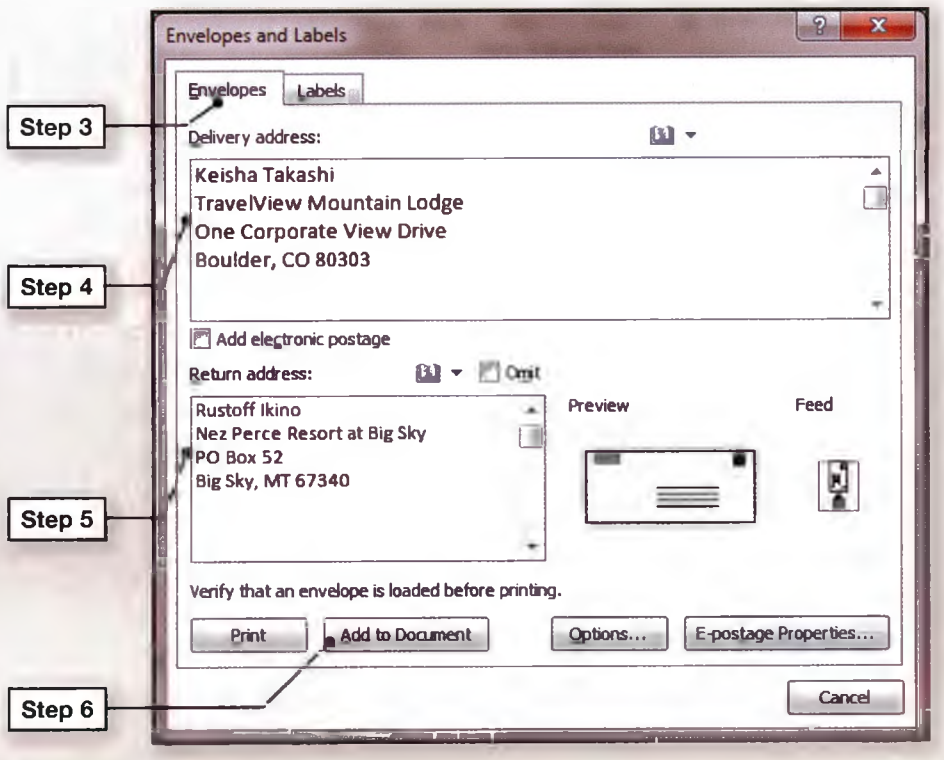


FIGURE 5-45
Envelopes and Labels Dialog Box

4. Key the delivery address in the *Delivery address* box as seen in Figure 5-45.
   Keisha Takashi
   TravelView Mountain Lodge
   One Corporate View Drive
   Boulder, CO 80303

5. Key the return address in the *Return address* box.
   Rustoff Ikino
   Nez Perce Resort at Big Sky
   PO Box 52
   Big Sky, MT 67340
6. Choose **Add to Document**.
7. Zoom to about **50%–75%** to see the envelope and the letter as shown in Figure 5-46.

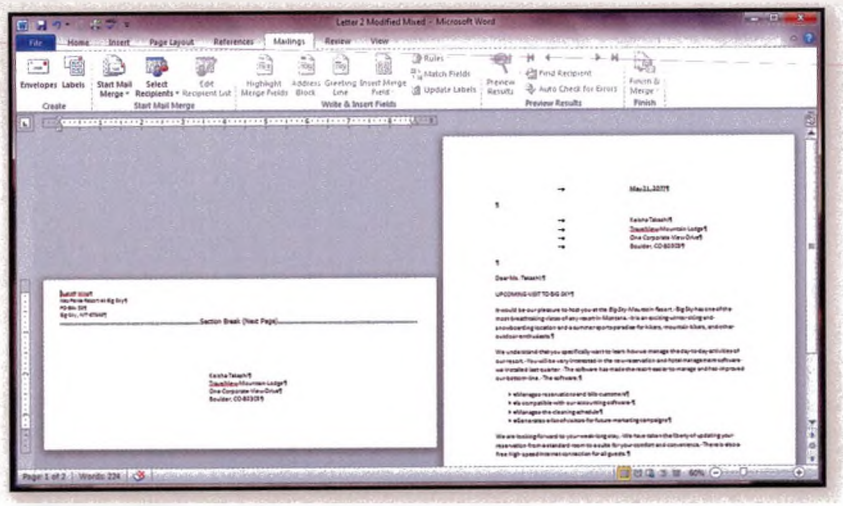


FIGURE 5-46
Envelope Attached to a Letter

8. Save the document as ***Letter 3 Add Envelope*** in your ***Chapter 5*** solutions folder, and then close the file.

BLOCK STYLE LETTER WITH OPEN PUNCTUATION

By far, the simplest letter format is one with a block style using open punctuation. In this style, every line and paragraph begins flush on the left margin. **Open punctuation** means the colon after the salutation and the comma after the complimentary close are removed. This format is popular for less formal occasions or for when a letter is meant for people inside rather than outside a company.

Activity 5-23 BLOCK STYLE LETTER WITH OPEN PUNCTUATION

1. Open ***Draft Announcement Letter*** from the data files for this lesson.
2. Make all the changes marked in red ink starting from the bottom and moving to the top of the page. Make the repairs that are marked, including the following:
   - Fix any spelling and grammar errors.
   - Remove the colon after the salutation.
   - Remove the comma after the complimentary close.
   - Change this to a block style letter.
   - Space the paragraphs correctly.

INSTANT MESSAGE

The acronym **ASAP** means As Soon As Possible.

- Change from an 11- or 12-point font style to one of your choosing.
- Center the letter vertically.
- Include your initials at the bottom.

3. Read *Digital Snapshot: Custom Watermarks* on page 184. Using the information in that section, create an **ASAP** watermark using the color red.
4. Save this document as ***Letter 4 Block Open*** in your ***Chapter 5*** solutions folder.

LESSON 5-6 Build Informative Tables

IN THIS LESSON YOU WILL:

Objectives

1. Learn to create and improve tables with colors, shading, and symbols.
2. Use the table style gallery.
3. Learn about agendas and use tables to create them.

Key Terms

agendas
column headings
gridlines
side headings

TERRIFIC TABLES

Tables are used for organizing information in an easy-to-read format. Tables are organized by columns and rows. Where columns and rows meet, cells are created. Cells are the rectangles created by columns and rows. The lines marking columns and rows are called **gridlines**. Columns are usually referenced with letters (A, B, C, etc.) and rows with numbers (1, 2, 3, etc.), as seen in Table 5-5. This example has four columns and five rows and would be called a 4 × 5 table.

TABLE 5-5
Cell References for Tables

A1	B1	C1	D1
A2	B2	C2	D2
A3	B3	C3	D3
A4	B4	C4	D4
A5	B5	C5	D5

5 rows

4 columns

Activity 5-24 INCLUDE A TABLE

1. Open ***Travel 1 Correspondence*** from your ***Chapter 5*** solutions folder. (This is the file you created in Activity 5-19.)
2. After the last paragraph of your memo, just before your initials, add the heading **APPROVED TRAVEL** as seen in Figure 5-47; then tap **Enter**.

INSTANT MESSAGE

If you make a mistake, choose Undo and try creating the table again.

3. Choose the **Insert** tab as seen in Figure 5-47.
4. Choose the **Tables** down arrow from the *Tables* group as seen in Figure 5-47. Hover down the squares until you have selected four squares (columns) across and five squares (rows) down. Click or tap cell **D5** (the bottom right square) to create a 4 × 5 table.

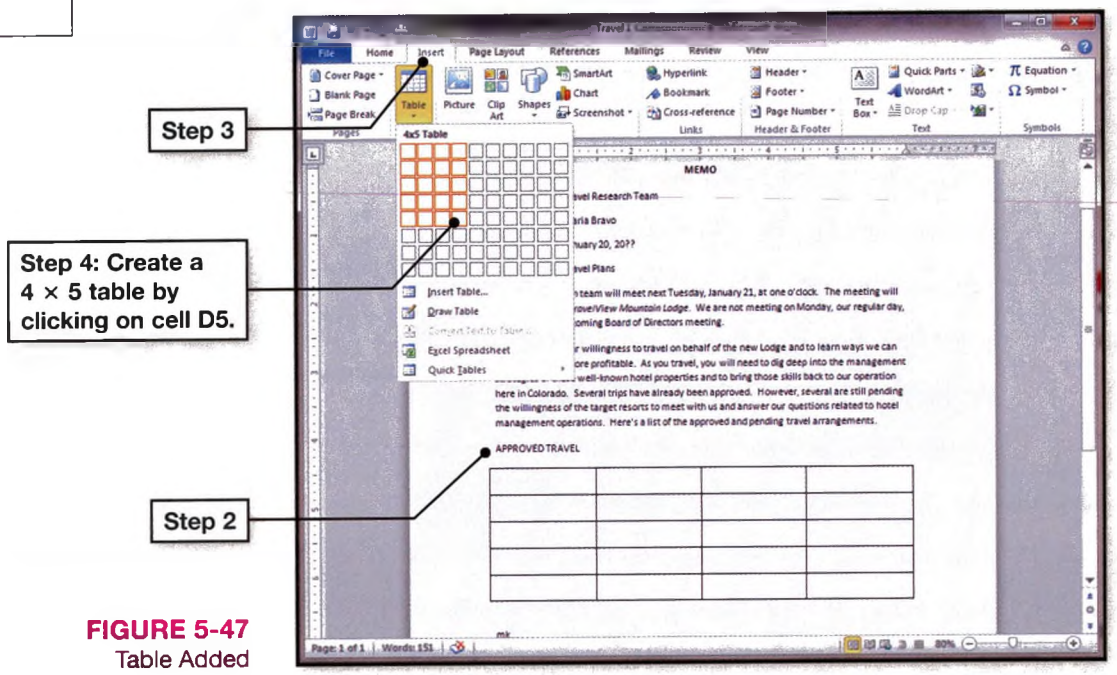


FIGURE 5-47
Table Added

Move around a table: To move forward one cell at a time, tap the **Tab** key. To move backwards one cell at a time, hold down the **Shift** key and tap **Tab** (**Shift** + **Tab**). Choose the **Enter** key to increase the height of a row. If you tap the **Enter** key by mistake, tap the **Backspace** key to delete the extra line. You may also simply click the cell you need.

5. Tap the **Tab** key seven times to move forward seven cells. While holding down the **Shift** key, tap the **Tab** key (**Shift** + **Tab**) seven times to move back seven cells to the starting point.
6. Tap the **Enter** key five times to see how it expands the size of the cell. Tap either **Backspace** or **Undo** five times to delete the extra spaces.
7. Refer to Table 5-6 to key the data in the cells exactly as shown.

Name	Place	Budget	Status
Maria Bravo	Solitude, UT	$1,440.00	Approved
Marc Cooper	Vail, CO	$1,250.00	Pending
Madeline Tucker	Mount Rainier, WA	$1,747.00	Approved
Melissa Kim	Lake Placid, VT	$2,200.00	Pending

TABLE 5-6
Data for Your Table

INSTANT MESSAGE

Tables usually have **column headings** and often **side headings**. The table in Figure 5-48 has these elements. Various visual and color effects can be used to make the table more interesting.

8. Make these changes using the skills you have learned as illustrated in Table 5-7:

- Bold and center all four items in row 1 using **Bold** and **Center**.
- Select just the names in the first column, and bold that column using **Bold**.
- Select the items in the second column from *Solitude* down to *VT*. Choose **Center** to center that information.
- Select just the numbers in the *Budget* column, and choose **Align Text Right** to move the information flush to the right side of the cell.
- Select the words **Pending** and **Approved** in the fourth (*Status*) column, and move the information flush right with **Align Text Right**.

TABLE 5-7
Changes for Your Table

Row headings

Column headings

Name	Place	Budget	Status
Maria Bravo	Solitude, UT	$1,440.00	Approved
Marc Cooper	Vail, CO	$1,250.00	Pending
Madeline Tucker	Mount Rainier, WA	$1,747.00	Approved
Melissa Kim	Lake Placid, VT	$2,200.00	Pending

9a→ 9b→ 9c→

Digital Tip

Change column width: The width of columns can be adjusted to better display the text inside cells. For example, *Mount Rainier, WA* is the longest text in the *Place* column. You can make this column wider by hovering a mouse or digital pen directly on a gridline until a pointer appears that has two parallel lines with arrows pointing out from both sides. Dragging the line to the left or right will adjust the width of the cells. Double-clicking the double lines will make the column automatically adjust to the smallest size possible to fit the text in the column.

9. Change the width of several columns:

a. Hover your pointer over the gridline between the *Name* and the *Place* columns (A and B). When the mouse pointer turns into two parallel lines with arrows pointing in both directions, click (or touch) and drag the line to the right about ½ to ¾ of an inch.

b. Repeat the process by hovering over the gridline between the *Place* and the *Budget* columns (B and C). Click or touch and drag the line to the right about ½ to ¾ of an inch.

c. Adjust the next column by hovering over the gridline between the *Budget* and the *Status* columns (C and D). Click or touch and drag the line to the right about ¼ to ½ of an inch.

10. Save your updated document as ***Travel 2 Add Table*** in your ***Chapter 5*** solutions folder.

IMPROVE YOUR TABLES

Whenever you are working inside a table, two new tabs, *Design* and *Layout*, appear on the user interface. They are visible in Figure 5-48. Useful features are found on both tabs. We will explore what you can do with your tables in the following activities.

Activity 5-25 ENHANCE A TABLE

DigiTip

Add row: Add a new row to the bottom of your table and fill it with new information by using the Insert option under the Table Tools' Design and Layout tabs.

1. If necessary, open your ***Travel 2 Add Table*** file from your ***Chapter 5*** solutions folder.
2. Click or tap in the cell containing the name *Melissa Kim*.
3. Choose the Table Tools' **Layout** tab.
4. From the *Rows & Columns* group, choose **Insert Below** as shown in Figure 5-48.

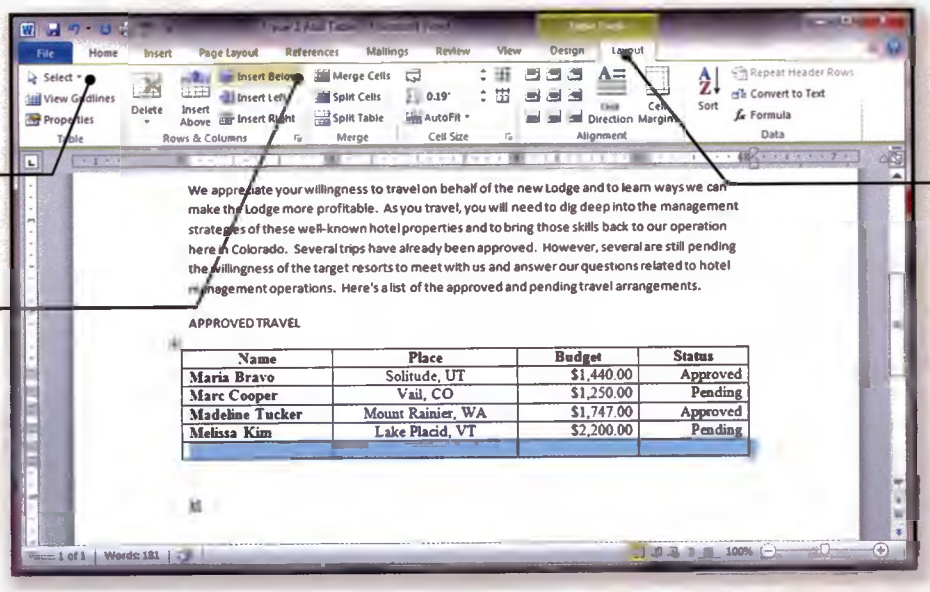


FIGURE 5-48 Table Added

5. Key the information in Table 5-8 below *Melissa Kim's* data in the new row.

Karolina Tonono	Big Sky, MT	$1,714.00	Approved

TABLE 5-8 New Row of Data

DigiTip

Use table styles: Choose from a variety of table formatting styles to create an attractive table. Choose the style that best displays your information clearly to the reader.

6. From the *Tables* group under the Layout tab, click the **Select** command and then choose **Select Table**. (See Figure 5-48.)
7. Choose the Table Tools' **Design** tab as seen in Figure 5-49.
8. To see more options, pick the down arrow next to the table designs that are shown. Scroll along the various options in the *Table Styles* group as indicated in Figure 5-49. Watch the Live Preview, and look for an attractive style of your choosing.

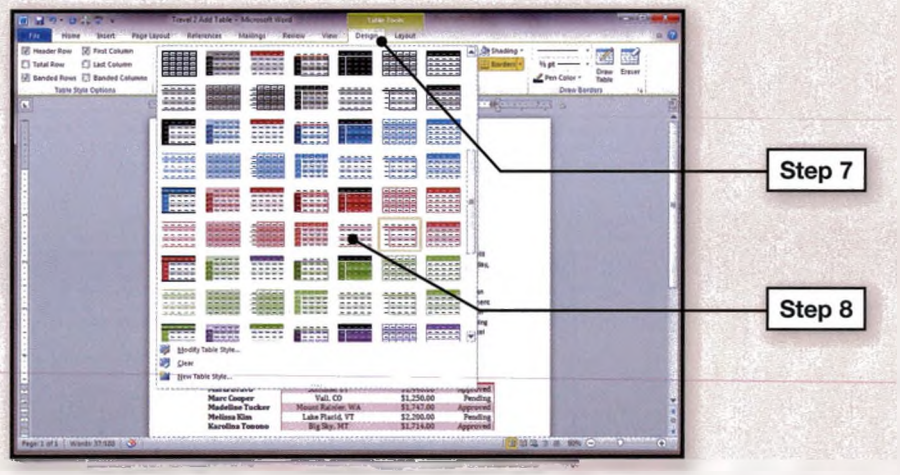


FIGURE 5-49
Design Format Options

9. Save the updated document as ***Travel Memo 3 Improve Table*** in your ***Chapter 5*** folder.

COMPLEX TABLES

There will be times when you need to create more complicated and larger tables. This means learning the techniques explored in the next activity. Peek ahead to Figure 5-56 on page 201 for a preview of what your final table can look like. The table may look hard to create at first, but if you follow the next steps closely, you will have it mastered in no time.

Activity 5-26 CREATE COMPLEX TABLES

1. Open Microsoft Word and a blank document.
2. Choose the **Insert** tab. (See Figure 5-50.)
3. Choose the **Table** button's down arrow followed by **Insert Table**. This will open the Insert Table dialog box. (See Figure 5-51.)
4. Key **4** in the *Number of columns* field and **15** in the *Number of rows* field, as indicated in Figure 5-51. Then choose **OK**.

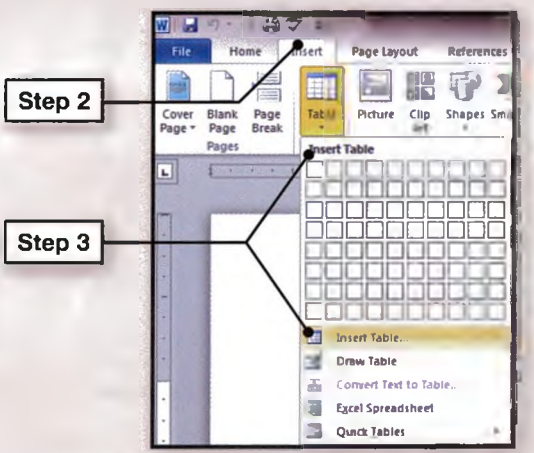


FIGURE 5-50 Table Creation

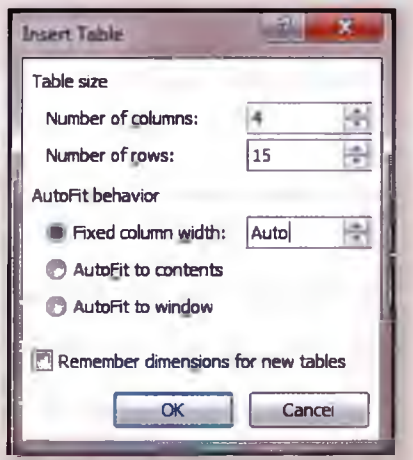


FIGURE 5-51 Insert Table Dialog Box



Merging erases lines between cells and groups cells together, creating larger, single-celled organisms. Probably the easiest way to do this is to use the Merge Cells command found on the Layout tab. (See Figure 5-52.) However, you can also merge cells by choosing the Eraser button from the Design tab and erasing the lines in a table by clicking and dragging over them. *Caution:* You must turn the Eraser off when you are finished; otherwise, you can make a mess of things fast. If you do make a mistake, hit Undo quickly—before performing any other actions!

5. Select all the cells in row 1 (**A1:D1**) as seen in Figure 5-52.
6. Under Table Tools, choose the **Layout** tab as seen in Figure 5-52.

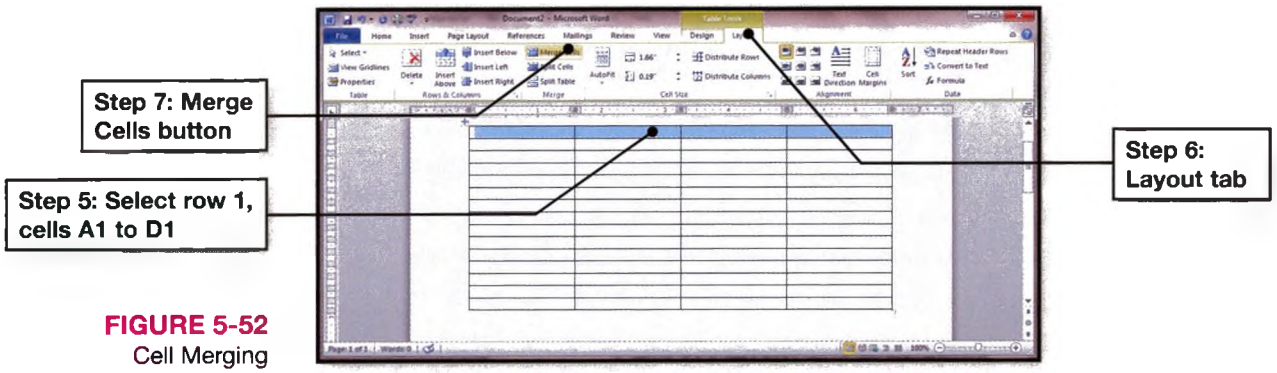


FIGURE 5-52
Cell Merging

7. Choose **Merge Cells** to erase the three lines that divide row 1.
8. Select cells in the 8th row (**A8**:**D8**) as seen in Figure 5-53. Choose **Merge Cells** to erase the three lines in that row.
9. Select cells **A2**:**A7** in column A as seen in Figure 5-53. Choose **Merge Cells** and erase the five lines in the selection. Your table will begin to look like the one in Figure 5-53.
10. Select cells **A9:A15** in column A. (See Figure 5-53.) Choose **Merge Cells** to erase the six lines in the selection.
11. Select cells **C2**:**C7** in column C. (See Figure 5-53.) Choose **Merge Cells** to erase the five lines in the selection.
12. Select cells **C9:C15** in column C. (See Figure 5-53.) Choose **Merge Cells** to erase the six lines in the selection.

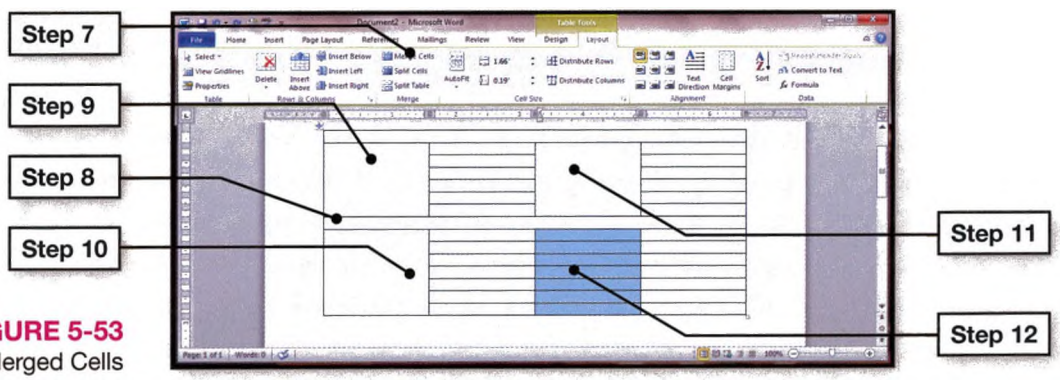


FIGURE 5-53
Merged Cells

13. Key the data in the cells as seen in Table 5-9. Remember that the arrow keys will move you from one cell to another. The Tab key will move you across a row.

Activities for Every Season			
Winter	Skiing	Spring	Hiking
	Snowboarding		Fishing
	Ice-skating		Golf
	Snowshoeing		Bike riding
	Cross-country skiing		Horseback riding
	Snowmobiling		Swimming
Summer	Camping	Fall	Kayaking
	Fishing		Fishing
	Golf		Golf
	Bike riding		Bike riding
	Horseback riding		Horseback riding
	Barbequing		Canoeing
	Swimming		Swimming

TABLE 5-9
Data for Your Table

14. Format your data as follows:
    a. Select the entire table (choose **Layout** > **Select** > **Select Table**), and change the font style to an interesting and visually appealing font. (Remember to switch back to the Home tab!)
    b. Make the title in row 1 **16** point **Bold**.
    c. Increase the size of the seasons (*Winter*, *Spring*, *Summer*, and *Fall*) to **14** point **Bold**.
    d. **Center** the seasons in columns A and C, and center the title in row 1.
    e. Center the seasons by selecting **Table Tools** > **Layout** > **Align Center** from the *Alignment* group as shown in Figure 5-54.

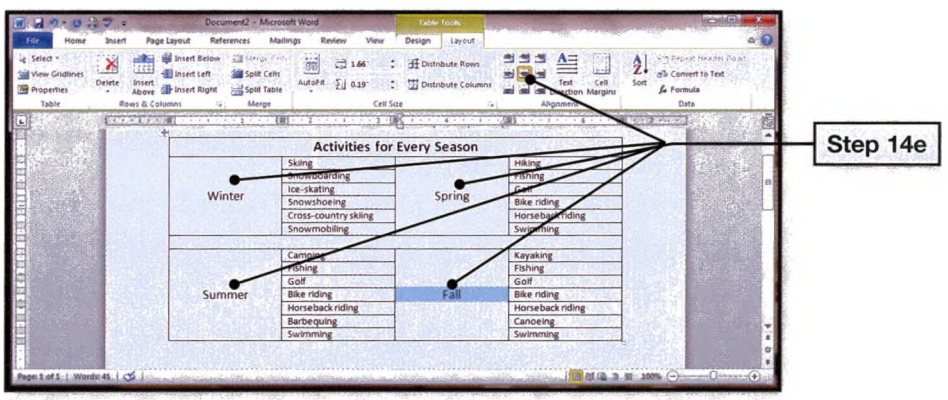


FIGURE 5-54
Text for Cells

15. Save this document as ***Activities Table 1*** in your ***Chapter 5*** solutions folder.

COLORS, SHADING, AND SYMBOLS

Adding shades of color can make any table more attractive. Colors and shading also make the information in a table more accessible to your audience as they seek out specific details in the table. You will need to select rows and columns before coloring and shading them. You can use any color in the rainbow. However, be careful; if you shade in a dark color, you will need to change the text to a lighter color so it can be seen clearly.

Activity 5-27 ADD COLORS AND SYMBOLS TO A TABLE

1. If necessary, open ***Activities Table 1*** from your ***Chapter 5*** solutions folder.
2. Click the **Home** tab.
3. Select row 1. Choose **Font Color**, and change the text in row 1 to a light contrasting color as suggested in Figure 5-55a.
4. Reselect row 1. From the **Shading** button's down arrow color palette (found in the *Paragraph* group), pick a dark background color as seen in Figure 5-55b.



FIGURES 5-55a AND 5-55b
Font Color and Cell Color Options

DigiTip

Insert symbol: A wide variety of symbols can be inserted into a document.

5. Shade the cells with the four seasons in them in columns A and C. Use a lighter shade of the color bar you choose for the title in row 1.
6. Select cells **A8:D8** in row 8 that still appear white. Replace white with a dark color from the Shading button's down arrow ***color palette*** as used in step 4 for row 1.
7. Position your insertion point immediately after the word *Winter*.
8. Choose the **Insert** tab. From the *Symbols* group, pick **Symbol** followed by **More Symbols** at the bottom of the gallery. (See Figure 5-56.) This will open the Symbol dialog box.

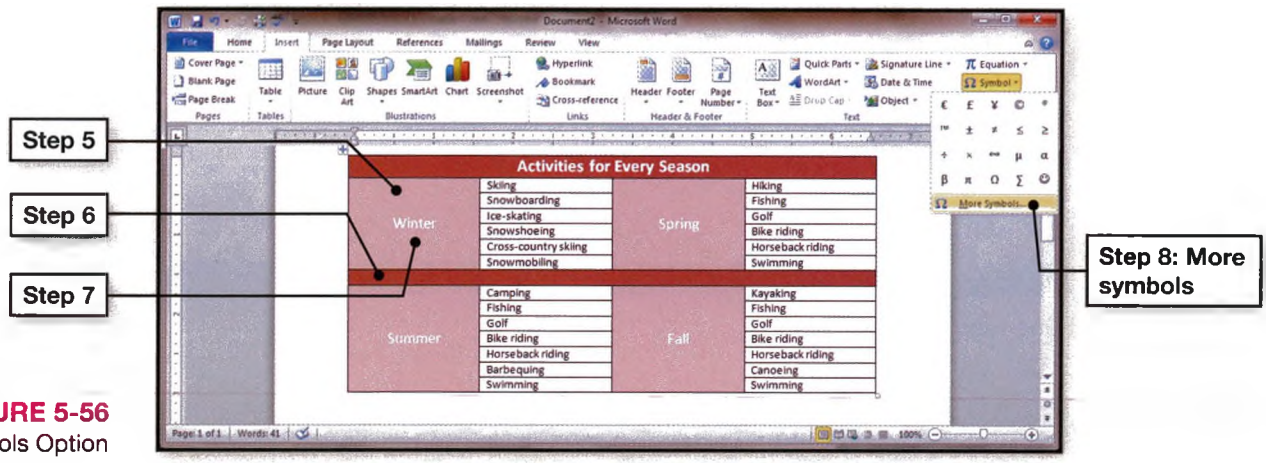


FIGURE 5-56
More Symbols Option

9. Pick a right-facing arrow:
   a. Choose the **Font** down arrow and scroll down to the **Wingdings** font as seen in Figure 5-57. (Wingdings is full of innovative icons.)
   b. Scroll through the Wingdings fonts until you find a right-facing arrow. Click or tap the arrow.
   c. Choose **Insert**.

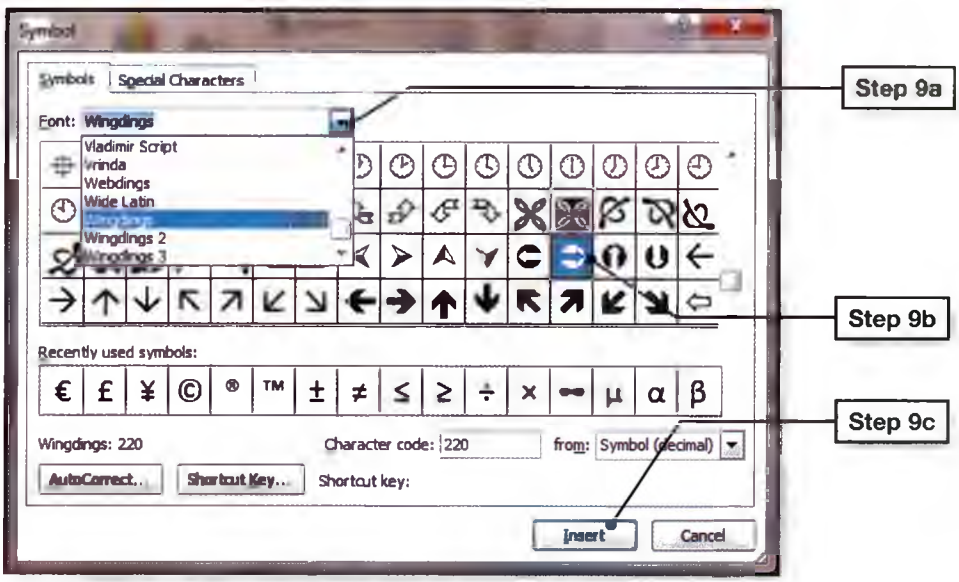


FIGURE 5-57
Wingdings Symbol Options

10. Repeat steps 7 and 9 to insert the arrow after the words *Spring*, *Summer*, and *Fall*. (The Symbol dialog box stays open until you close it, so you do not need to repeat step 8.)

11. When all four arrows have been inserted, click **Cancel** to close the Symbol dialog box.

12. Remove the gridlines from the table by selecting the entire table from the **Layout** tab; then choose the **Design** tab, select the down arrow on the **Borders** button, and pick **No Border** as shown in Figure 5-58.

Remove gridlines: Removing the gridlines can often make a well-shaded table look more attractive, less busy, and more appealing.



FIGURE 5-58
Border Options

13. Resave your updated ***Activities Table 1*** file in your ***Chapter 5*** solutions folder. Do not close this file just yet.
14. Open ***Media Kit 3 Add Styles*** from your ***Chapter 5*** solutions folder.
15. Delete the two bulleted lists that explain the winter and summer activities at the lodge.
16. Switch to ***Activities Table 1*** file, and copy the entire table.
17. Switch back to your ***Media Kit 3 Add Styles*** file, and place the table where the two bulleted lists once were.
18. Save the improved file as ***Media Kit 4 Add Table*** in your ***Chapter 5*** folder.

ADVANCE YOUR AGENDA

Agendas are created to help organize meetings, events, and groups of people. They are especially useful in business meetings. They help participants stay on topic and move along to all of the important items that have been listed. A well-organized agenda will "drive a meeting" to meet its goals. An agenda is a strong message to an audience of meeting participants that they need to stick to the purpose, goals, and topics of the meeting.

In the meeting for which you will create an agenda, the Corporate View board will deliberate and vote on some changes to the TeleView operation and the fate of the TravelView Mountain Lodge. Combine the many skills you have learned in this chapter as you build this agenda.

Activity 5-28 PREPARE AN AGENDA USING TABLES

1. Open a blank document and create an agenda of your own design. Use Styles to make the top five lines interesting to board members. Use the Tables feature to create and design a table that includes the times and scheduled tasks shown on page 203. Include all of the following information and be creative!

INSTANT MESSAGE

A sample agenda can be seen in Figure 5-59. However, do not copy it. Use your own creativity, and make your agenda as clear as possible.

Agenda
Meeting of the Board of Directors
Insert Today's date
Place: Board Room
Presiding: Madeline Tucker

9:00 a.m.	Welcome and review of minutes from previous meeting
9:15 a.m.	Discuss new manufacturing techniques in the Hong Kong facility
9:30 a.m.	Vote on additional expenditures to update the new Texas plant
9:35 a.m.	Review the Corporate View Lodge name change proposal (see the enclosed memo)
9:55 a.m.	Vote on Corporate View Lodge name change proposal
10:00 a.m.	Break for 15 minutes
10:15 a.m.	Review HR hiring practices and related benefits packages
11:15 a.m.	Summarize instructions to the HR team
11:30 a.m.	Review marketing campaigns and progress
12:00 p.m.	Working lunch: review new product designs

INSTANT MESSAGE

Learn how to work with images in Word, Publisher, and many other applications in Chapter 8.

2. Add an image to your agenda.
   a. Choose the **Insert** tab.
   b. Select **Picture** from the *Illustrations* group.
   c. Browse to your ***DigiTools Data/Chapter 5*** files and open the file ***TravelViewLogo***.
3. Position your TravelView image:
   a. Click on your picture.
   b. Choose the **Pictures** tab followed by the **Position** button.
   c. Pick the **With Text Wrapping** option, which will place the image in the top right-hand corner of the document as seen in Figure 5-59.

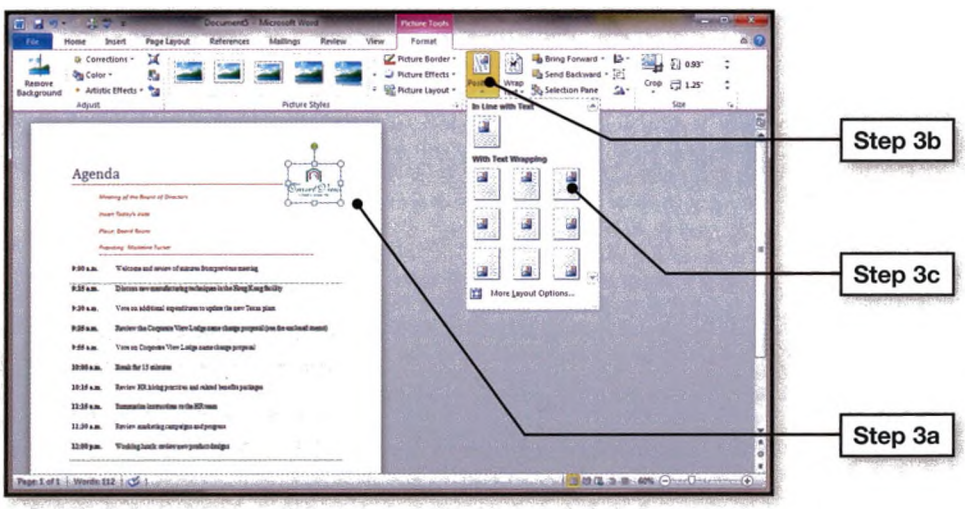


FIGURE 5-59
Sample Agenda

4. Save your table as ***Agenda 1*** in your ***Chapter 5*** solutions folder.

INTO THE CLOUD

Wikipedia: Controversy in the Cloud

A debate is swirling throughout the academic world. In decades past, information came from selected books, carefully constructed academic journals, monitored magazines, and edited encyclopedias. The body of research was subject to peer review, which meant experts checked and double-checked the writings of other experts. In this carefully controlled environment, accuracy could be verified, validated, and questioned by other experts.

And then came the chaos of the wide-open world of Wikipedia. Essentially, wiki tools allow multiple groups of people to contribute and edit information from anywhere in the world in an organized way. Wikipedia has many advantages over the print resources of the past:

- It's very big. There is no limit to the number or size of articles.
- It allows for a wide range of views and input from all over the world.
- Peer review is provided by volunteer wiki contributors who care about their topics.
- Wiki articles can be updated immediately.
- Links are provided to collaborating resources.

Some instructors will not allow Wikipedia and sources like it to be cited in research papers. And their worries are often valid. Clearly, there can be errors in any Wikipedia article. Corrections and changes can be made at any time, so the articles are not fixed in time like a book or printed academic journal article.

A majority of students, however, will admit privately to using Wikipedia or a similar online resource as their starting point for much of their research. To hide their tracks from their instructors, students often click the links at the bottom of each article and create citations from those pages instead.

With greater access to information comes greater responsibility. The key is not shunning Wikipedia or other similar online resources, but learning to use these resources responsibly, discovering what their limitations are, and identifying when to trust a source and when to question a source. The burden of truth has shifted to you. Do not accept everything you read online. Double-check your information with a broad range of sources so you get things right.

Discussion:

1. Have you ever used Wikipedia or a similar source for your academic research?
2. What advantages and disadvantages are there to a resource like Wikipedia that is based in the Net cloud?
3. What, if any, better sources can you use? Why do you consider these sources to be better?
4. How can you overcome the limitations?

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 5-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools*.

Building Up: Your Math Skills

Exercise 5-2 CONVERTING FRACTIONS, DECIMALS, AND PERCENTS

Calculate answers to the following questions using the Calculator app, or go online and find a website that can help you solve these problems. Record your answers in a word processing file. Save the answers in your ***Chapter 5*** folder as ***Exercise 5-2***.

1. The Cardinal Computer club has 200 members. One-fifth of the members use computers with the Macintosh operating system. The other members use computers with the Windows operating system. What percent of the members use Windows? How many of the members use the Macintosh OS?

2. John's computer has a 20-gigabyte hard drive. Bill's computer has a hard drive that is ⅖ bigger than John's. How many gigabytes does the hard drive on Bill's computer have?

3. The soccer league had to distribute 60 flyers about the fall tournament. The Nets team passed out ¼ of the flyers. The Spikes team delivered ⅓ of the flyers. What percent of the flyers have not been delivered? Round your answer up to the nearest whole percent.

4. The Community Service Club painted fences, benches, and tables in a park. Each group of workers reported the amount of paint their group used. Convert the paint amounts to decimal form. Round amounts to two decimal places. Find the total amount of paint used. Express the answer in the form of a decimal.

   Group A 2½ gallons
   Group B 3⅓ gallons
   Group C 2¾ gallons
   Group D 4⅔ gallons

5. You need 18½ inches of rope for a craft project. When you go to purchase the rope, you find that the rope is sold in centimeters. How many centimeters of rope do you need? Round your answer to the nearest whole centimeter. *Hint:* 1 inch = 2.54 centimeters.

Building Up: Your Language Arts Skills

Exercise 5-3 FROM THE EDITOR'S DESK: SUBJECT VERB AGREEMENT

1. Open your browser software. Use the bookmark or your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications > From the Editor's Desk**.)
2. Choose the **Sentence Structure** link. Under *Sentence Structure*, choose the **Subject and Verb Agreement** link. Read the information provided, and follow the directions for completing the practice exercise. Copy and paste the questions to a word processing document, and answer the questions. (Read any additional information provided on the Web page, and follow the directions for completing the practice exercise.)
3. Check your answers by comparing them with those on the bottom of the intranet page.
4. Save your work in your ***Chapter 5*** folder as ***Exercise 5-3 Subject Verb Agreement***.

Career Clusters



Business, Management, and Administration Careers

Those in the Business, Management, and Administration career cluster manage and help others in the company. For example:

- A *chief executive officer (CEO)* develops a company's goals and policies and supervises other managers.
- A *general manager* coordinates daily operations for a company.
- A *human resource manager* is responsible for handling employee benefits, recruiting, interviewing, and hiring new employees.
- *Purchasing agents* try to obtain the highest-quality material at the lowest possible cost.

How can you power up your business management skills? Certainly, an understanding of DigiTools is essential. Today's managers use ultra-mobile handheld devices, smart phones, tablet PCs, and networks to keep track of customers, contacts, appointments, employees, employee evaluations, product shipments, manufacturing deadlines, financial records, schedules, and their corporate websites.

And there are many other management skills to consider. SCANS, the Secretary's Commission on Achieving Necessary Skills,[1] identifies the workplace competencies employers are looking for. As a potential manager, you will need to manage:

- *Resources.* Allocate time, money, materials, space, and staff.
- *Interpersonal skills.* Work on teams, teach others, serve customers, lead, negotiate, and work well with people from culturally diverse backgrounds.

[1]U.S. Department of Labor Website. "Secretary's Commission on Achieving Necessary Skills." Downloaded 05 January 2009. http://wdr.doleta.gov/SCANS/lal/lal.pdf.

- *Information.* Acquire and evaluate data, organize and maintain files, interpret and communicate, and use computers to process information.
- *Systems.* Understand social, organizational, and technological systems; monitor and correct performance; design or improve systems.
- *Technology.* Select equipment and tools, apply technology to specific tasks, and maintain and troubleshoot equipment.

As you read through the list of careers shown in Table 5-10, think about how people in each of these positions must apply the SCANS competencies and use their DigiTools to do their jobs effectively.

Position and Yearly Salary		Position and Yearly Salary	
Chief Executive Officer	$107,670	HR Administrative Assistant	$30,570
Receptionist	$21,450	HR Compensation Specialist	$45,950
Executive Secretary or Administrative Assistant	$33,970	Training Specialist	$44,790
Business Manager for Artist or Performer	$62,480	Meeting or Convention Planner	$39,680
Purchasing Agent	$46,090	Management Analyst	$64,470
Compliance Officer	$46,250	Human Resource Manager	$61,303
HR Employment or Recruitment Specialist	$44,320	General Manager	$73,570

TABLE 5-10 Career Cluster: Business, Management, and Administration

Exercise 5-4 SCANS GOALS



Work with teammates to conduct a self-evaluation comparing your skills to the SCANS workplace skills.

1. Start Microsoft Word. Open the data file ***SCANS*** from the data files for ***Chapter 5***, and complete the table.
2. Think about the five SCANS skill areas, and discuss them with your team. As a group, think of examples of how managers perform each of the five SCANS skills on the job. Record the examples in your table.
3. Evaluate your current abilities for each SCANS skill area listed in your table. Use this rating scale:

Poor	1 point
Weak	2 points
Good	3 points
Very Good	4 points
Excellent	5 points

4. In the SCANS table, write suggestions for how you can improve your score for each category.
5. Improve the look of the table. Use themes or styles to change the look and readability of the table.
6. Save your document as ***Exercise 5-4*** in your ***Chapter 5*** solutions folder.

INSTANT MESSAGE

Be honest in your assessment. Although 25 points are possible, don't worry if you don't receive a perfect score. An honest assessment will allow you to determine the areas in which you need further work.

21st-Century Skills

Flexibility and Adaptability: Balancing Work and Life Needs

All careers place demands on workers and their families. Some may require travel, overtime, or a long commute, thereby reducing time for family or personal activities.

Finding the proper balance between work and family can be a challenge. In the last 25 years, the number of women in the workforce has increased significantly. This change has created more families with two working parents.

To help out, some companies have childcare facilities or help pay for childcare. Other companies allow flexible working hours (called *flextime*) where employees can arrive and leave work early to meet the needs of their school-age children. *Telecommuting* is also an option for some employees. Companies find that employee loyalty increases when the company makes accommodations for workers' personal needs.

Exercise 5-5 LEARN MORE ABOUT WORK/LIFE BALANCE

1. Search the Web to find articles about balancing work and life. Identify one or more companies that offer special benefits such as childcare, flextime, telecommuting, or pets at work. Note the source information for articles or Web pages you use.
2. Write a short three-page unbound report to summarize the information you find. Title the report **Balancing Act**. Include a references page to list the source information for articles or Web pages.
3. Save the report as ***Exercise 5-5*** in the ***Chapter 5*** solutions folder.
4. With your instructor's permission, print the report.

Chapter 6

Smart Spreadsheet Skills

Lesson 6-1 Exploring Excel
Lesson 6-2 The Power of Formulas
Lesson 6-3 More Customizing and Converting Skills
Lesson 6-4 Flowing Forms and Fantastic Functions

SPREADSHEET KNOW-HOW

Spreadsheets count, calculate, and crunch numbers. They can solve math and science problems like the most powerful calculators. And they can do much more, like creating charts and graphs and even Web pages to display results online. Spreadsheets also work with word processing, desktop publishing, and database software.

There are many spreadsheets to choose from, such as:

- Microsoft Excel (desktop and online versions)
- Google Spreadsheet (online version, converts to Excel or Open Office)
- Open Office (desktop version)

Excel is Microsoft's spreadsheet application. It is known as a powerful number cruncher. It is also a handy tool for creating elaborate charts and graphs. A sample of a chart is shown in Figure 6-1.

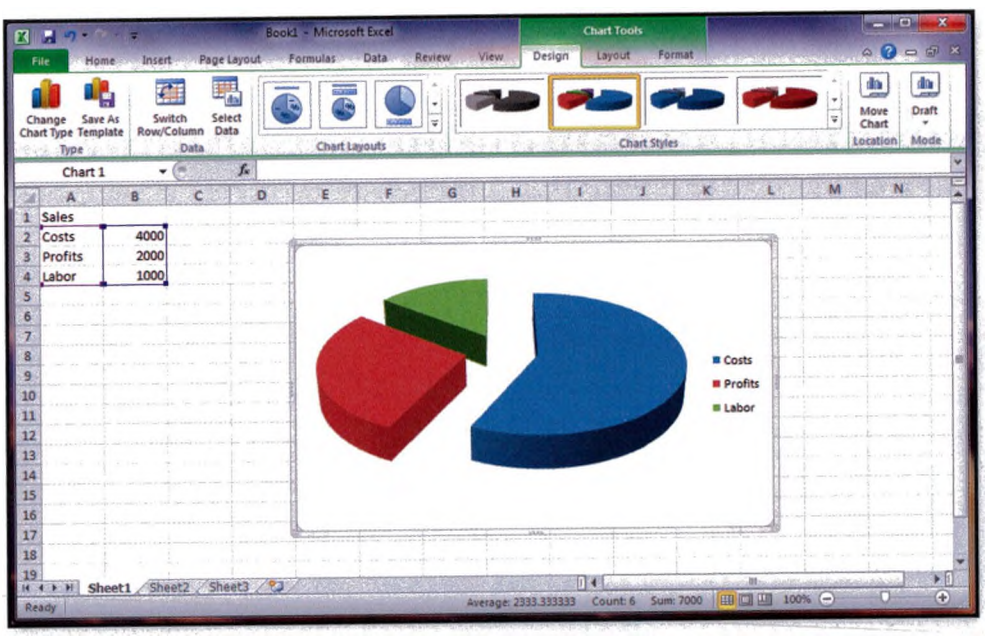


FIGURE 6-1
Excel Charts and Graphs

LESSON 6-1 Exploring Excel

IN THIS LESSON YOU WILL:

Objectives

1. Learn Excel's specialized terminology.
2. Navigate in Excel.
3. Learn about spreadsheet data types; enter text, numeric, and date values; and apply basic formatting.
4. Add data to a worksheet with Auto Fill.
5. Add numerical values and dates and apply formatting.

Key Terms

active cell
Auto Fill
cells
fill handle
labels
numerical values
range
sheets
text values
workbook
worksheets

ALL ABOUT EXCEL

Spreadsheets are handy tools both in school and on a job. In fact, it is almost impossible to think of a career or an academic discipline that cannot make good use of spreadsheets. After you learn a few basics, the more advanced skills can be learned quickly. So let's hit the basics. In our examples, we will use Microsoft Excel, and from there, you can adapt to any other spreadsheet.

Take a look at Figure 6-2. Do you see the familiar Ribbon used in Microsoft Word and PowerPoint? Below the Ribbon, however, spreadsheets look very different. Little rectangles that look like bricks stacked one on top of another fill the input area. These rectangles are called **cells**. The cell with the black border around it is called the **active cell**. In Figure 6-2, A1 is the active cell. Active cells are ready to accept data and instructions.

An Excel file is called a **workbook**. Inside every workbook you can have as many **sheets** or **worksheets** as you need. Look at the worksheet in Figure 6-2. Each cell is known by its column letter and row number. (Columns run up and down, and rows run left to right.) This gives each cell a unique address. For example, a cell might be known as *B5* or *G17*.

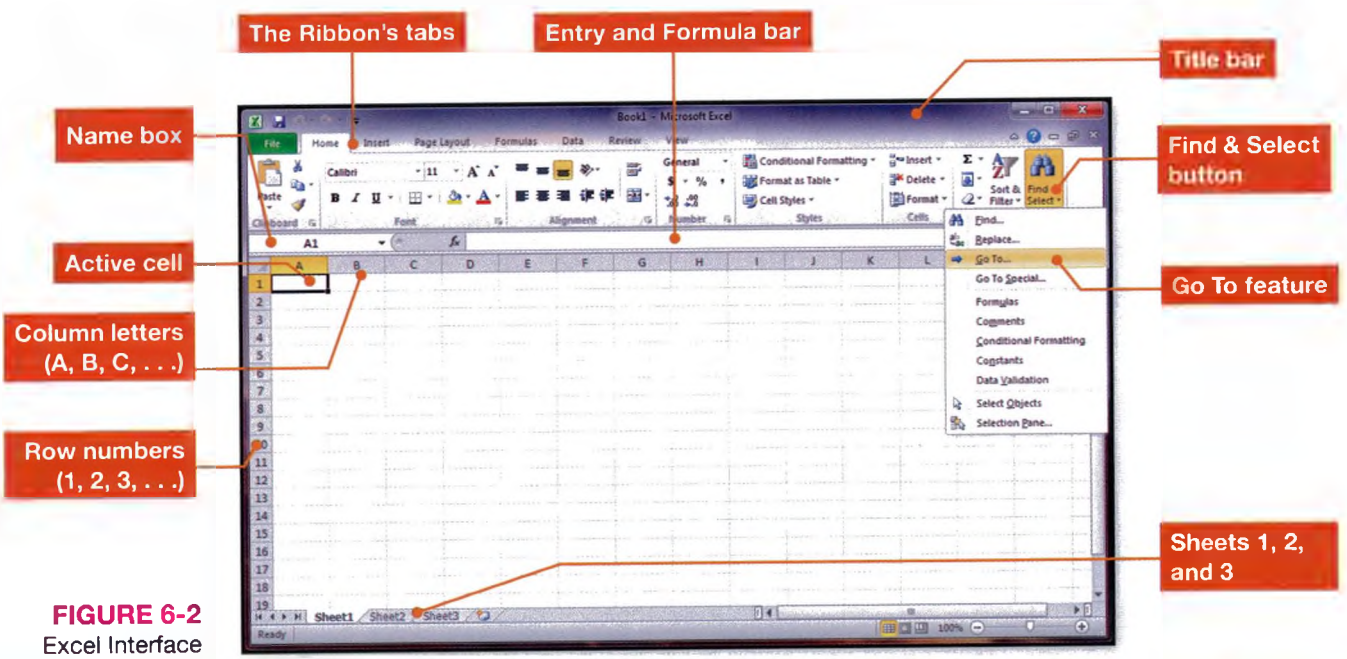


FIGURE 6-2
Excel Interface

MOVING AROUND A SPREADSHEET

Moving around a spreadsheet is simple. You can:

- Click your mouse or tap a digital pen on any cell to make it active.
- Use the arrow keys on your keyboard to move up and down and from side to side.
- Tap the Tab key to move forward one cell at a time.
- Press the Shift + Tab keys to move backward one cell at a time.
- Tap the Enter key to move down one cell.
- Slide the scroll bars to move around a super-large spreadsheet.
- Use the Go To feature to go to an exact cell even when it is not visible.

Activity 6-1 SPREADSHEET NAVIGATION

Watch the Video
Go to the video for this lesson.

A video illustrating how to perform the skills in this lesson is available from your instructor or online at: www.cengage.com/school/digitools.

1. Start Excel by choosing **Start** > **All Programs** > **Microsoft Office** > **Microsoft Office Excel**.

2. Practice with the mouse or digital pen:
   a. Click or tap on cell **B5** to make it the active cell.
   b. Click or tap on cell **C10** to make it the active cell.
   c. Click or tap on cell **E1** to make it the active cell.

3. Practice moving with the arrow keys on the keyboard:
   a. Tap the **left arrow** key on the keyboard four times to move to the left to cell A1.
   b. Tap the **right arrow** key on the keyboard seven times to move to the right to cell H1.
   c. Tap the **down arrow** key on the keyboard five times to move down to cell H6.
   d. Tap the **left arrow** key on the keyboard six times to move to the left to cell B6.
   e. Tap the **up arrow** key on the keyboard one time to move back to cell B5.

4. Practice moving with the Tab, Shift + Tab, and Enter keys:
   a. Tap the **Tab** key on the keyboard three times to move to the right to cell E5.
   b. Press the **Shift** + **Tab** key on the keyboard three times to move to the left back to cell B5.
   c. Tap the **Enter** key on the keyboard three times to move down three cells to B8.

5. Practice with the Go To command:
   a. Choose the **Home** tab if necessary, and pick **Find & Select** from the *Editing* group.
   b. Select **Go To**.
   c. Key **K3** in the *Reference* box shown in Figure 6-3, and click **OK**. You will be taken to cell K3.
   d. Key **A11** in the *Reference* box shown in Figure 6-3, and click **OK**. You will be taken to cell A11.

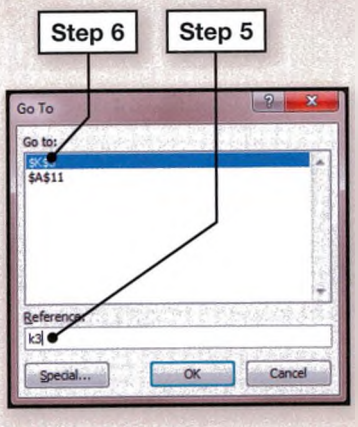


FIGURE 6-3 Go To Feature

6. To see how the Go To feature remembers previous locations:
   a. Choose the **Home** tab again, and select **Find & Select** from the *Editing* group.
   b. Select **Go To**.
   c. Select **K3**, the reference for cell K3 in the Go To dialog box, and click **OK** as seen in Figure 6-3. You will be returned to cell K3.

7. Return to cell A1. Leave the blank worksheet open for the next activity.

SPREADSHEET DATA TYPES

In the next activity, you are going to begin a spreadsheet that will help Keisha Takashi track major social events at the TravelView Mountain Lodge. The lodge is busy five days a week hosting meetings, conferences, dinners, weddings, and award ceremonies for community organizations. To keep track of everything, Keisha must enter specific types of data. Spreadsheets accept all types of data:

- *Text:* Words, names, numbers, addresses, or any combination of letters or numbers. (These are often called **text values**.) Text values that are used as column or row headings are called **labels**.
- *Numbers:* Includes any numbers as well as some symbols such as +, −, (,), and %. Dates and times are treated like numbers. (These are also called **numerical values**.)
- *Formulas:* Used to perform calculations. You will learn all about formulas in Lesson 2 of this chapter.

Values can be boldfaced, centered, or colored or have the cell that contains them shaded. You will learn about additional formatting options in later activities.

Activity 6-2 KEY AND FORMAT TEXT

INSTANT MESSAGE

If you choose a dark fill color, you must then choose a light text color to provide contrast so you can read the data in the cells.

1. If necessary, open Excel.

DigiTip: You must tap **Enter** or **Tab** or choose another cell to have Excel record the entry.

2. Key column labels as seen in Figure 6-4 in the following way:
   a. In cell A1, key the word **Group** and tap the **Tab** key.
   b. In cell B1, key the word **Associate** and tap the **Tab** key.
   c. In cell C1, key the word **Date** and tap the **Tab** key.
   d. In cell D1, key the word **Guests** and tap the **Enter** key.

3. Click or tap on the row number **1** to select the entire row as seen in Figure 6-4.

DigiTip: When you bold and center column labels, the labels stand out from the rest of the data.

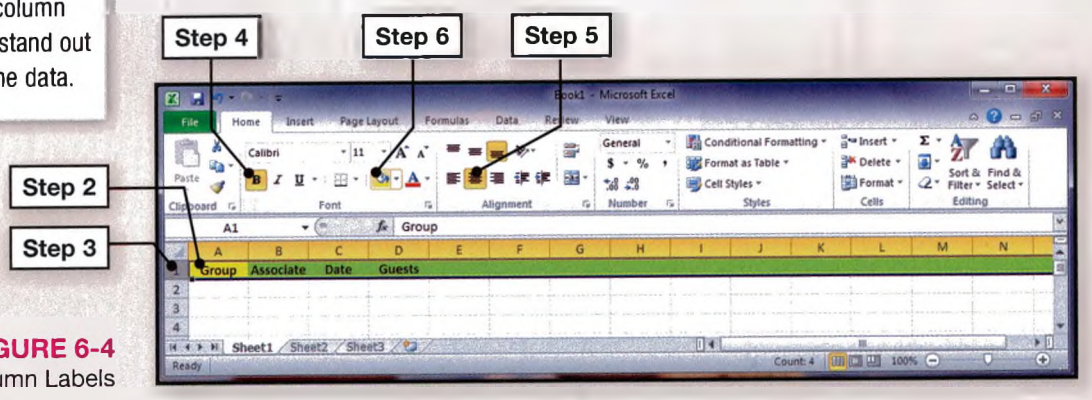


FIGURE 6-4
Column Labels

4. Click or tap on **Bold** in the Home tab's *Font* group.
5. Click or tap on **Center** in the Home tab's *Alignment* group.
6. Click or tap on the **Fill Color** down arrow on the *Font* group, and pick a highlight color such as a light yellow or green.
7. Save the spreadsheet as ***Special Events*** file in your ***Chapter 6*** solutions folder.

ADDING DATA WITH AUTO FILL

Keying data into a worksheet can be time-consuming. Fortunately, Excel remembers what you have keyed and will immediately fill in a cell so you do not need to key as much text. This feature is called **Auto Fill**.

Here is another hint. At times, you may enter text or data that is longer than the width of a cell. If a numeric value does not fit in the column width, Excel will display ######. To keep your numbers or text from turning into ######, widen the column in one of several ways:

A. Hover your mouse or digital pen between the letters *A* and *B* at the top of the column. When a double-sided arrow appears, touch and drag the column width line to the right until each word fits in the cells in column A.
B. Double-click your mouse or digital pen on the line between the letters *A* and *B* at the top of the column.
C. Select the entire column by clicking on the column label (i.e., *A*, *B*, or *C*). Choose **Format** from the *Cells* group on the Home tab. Then select **AutoFit Column Width** to automatically adjust the width.

Activity 6-3 KEY TEXT AND USE AUTO FILL

1. If necessary, reopen ***Special Events*** from your ***Chapter 6*** solutions folder.
2. Key the group names in cells A2 through A6 as listed in Table 6-1. Tap **Enter** after each entry to move to the next cell down. (See Figure 6-5.)

TABLE 6-1
Spreadsheet Data for Column A

Cell	Text value to key
A2	High School Awards Banquet
A3	Choir Concert and Dinner
A4	Marcus Wedding
A5	First National Bank Shareholders Meeting
A6	National Ski Association

DigiTip

To keep a portion of the cell content from being obscured, or the "#####" symbols from appearing, widen the column by following the instructions that appear just before this activity.

3. Make column A wide enough to fit all of the group names you just keyed. Your spreadsheet should look similar to that shown in Figure 6-5.

> Auto Fill remembers words and names you have previously keyed. Use this to your advantage in the next few steps.

4. Key the name **Maria Bravo** in cell B2, as seen in Figure 6-5, and tap the **Enter** key to move to cell B3.

5. Key **M** (the first letter of *Maria's* name). Her full name will appear. Tap **Enter** to accept the entire name.

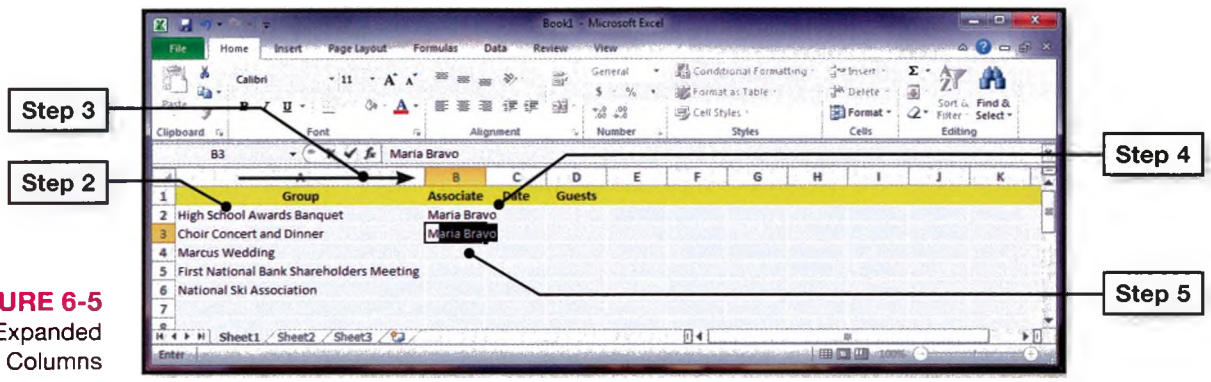


FIGURE 6-5
Auto Fill and Expanded Columns

6. Key the following names in cells B4 through B6 as shown in Figure 6-6:
   a. Key **Rustoff Ikino** in cell B4.
   b. Key **Jim Plante** in cell B5.
   c. Key **Jim Plante** in cell B6 using Auto Fill.

7. Make column B wide enough to fit all of the names you just keyed. Your spreadsheet should look similar to that shown in Figure 6-6.

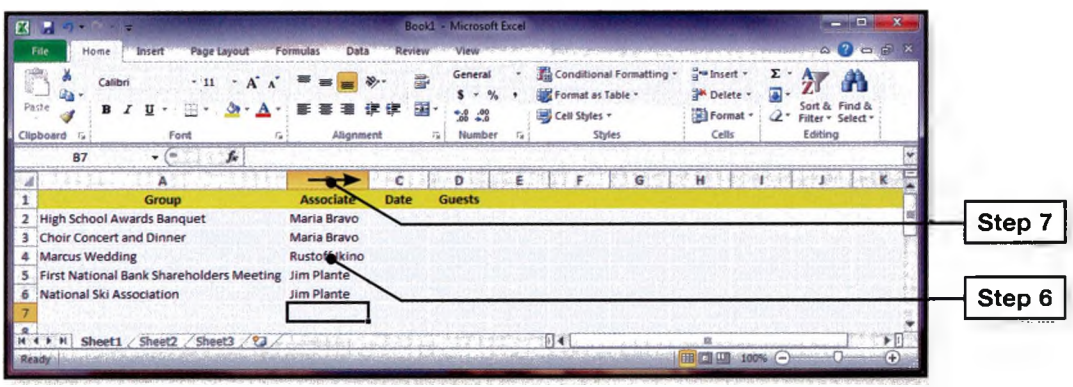


FIGURE 6-6
Spreadsheet Data for Column B

8. Save your updated ***Special Events*** file in your ***Chapter 6*** solutions folder.

ADDING NUMERICAL VALUES AND DATES AND FORMATTING DATA

Numbers and dates often have different formats. For example, *37* may be just a number or it may represent *$37*. You may choose to write a date as *2/15/2008* or have the entire date written out as *Wednesday, February 15, 2008*. You can make these changes (and ensure that they are applied consistently to all data of the same type) with Excel's powerful built-in formatting tools.

Activity 6-4 KEY DATES AND NUMBERS

1. If necessary, reopen ***Special Events*** from your ***Chapter 6*** solutions folder.
2. Key the date **2/15/20??** in cell C2 as seen in Figure 6-7. (*Note:* Change *??* to the current year, such as *2011* or *2014*.) Tap **Enter** to have the date recorded.

> **DigiTip** To key the dates in column C sequentially (15th, 16th, 17th, and so on), key the first date and select the first cell to make it active. The **fill handle** appears as a little black square in the bottom right corner of the active cell. Click and drag the fill handle down.

3. Click or tap on cell **C2**, and make it the active cell. Find the fill handle in the bottom right corner of the active cell. Touch and drag the fill handle down four cells; then release. (*Note:* The cells will be automatically filled with the correct dates sequentially from the 15th to the 19th.)

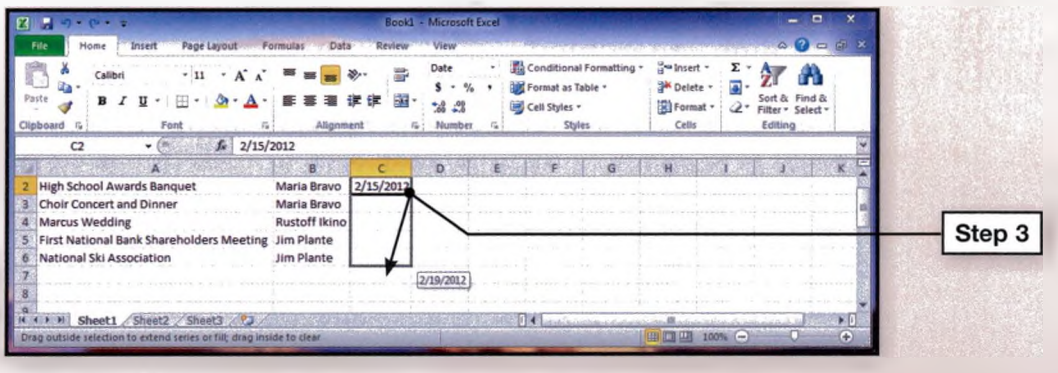


FIGURE 6-7 AutoFill Column C Dates

4. Key the number of guests in column D, cells D2 through D6, as listed in Table 6-2.

> **DigiTip** The date *12/22/2008* appears in the short date format. The long date format appears as *Wednesday, December 22, 2006*. Change the short dates you have keyed to their long date versions in the next few steps.

Cell	Numeric Value to Key
D2	37
D3	175
D4	200
D5	12
D6	27

TABLE 6-2 Spreadsheet Data Column C

5. Select column C by clicking on the column's letter, or just select cells **C2:C6** as seen in Figure 6-8.
6. Click or tap the down arrow in the **Number Format** text box on the Home tab's *Number* group. Then choose the **Long Date** format from the gallery as marked in Figure 6-8. Note that the cell width automatically adjusts to allow room for the entire date in this new format.

INSTANT MESSAGE

The colon (:) between cell references indicates a **range** of cells. So, instead of "Select cells C2 through C6," the same information is indicated by "Select C2:C6."

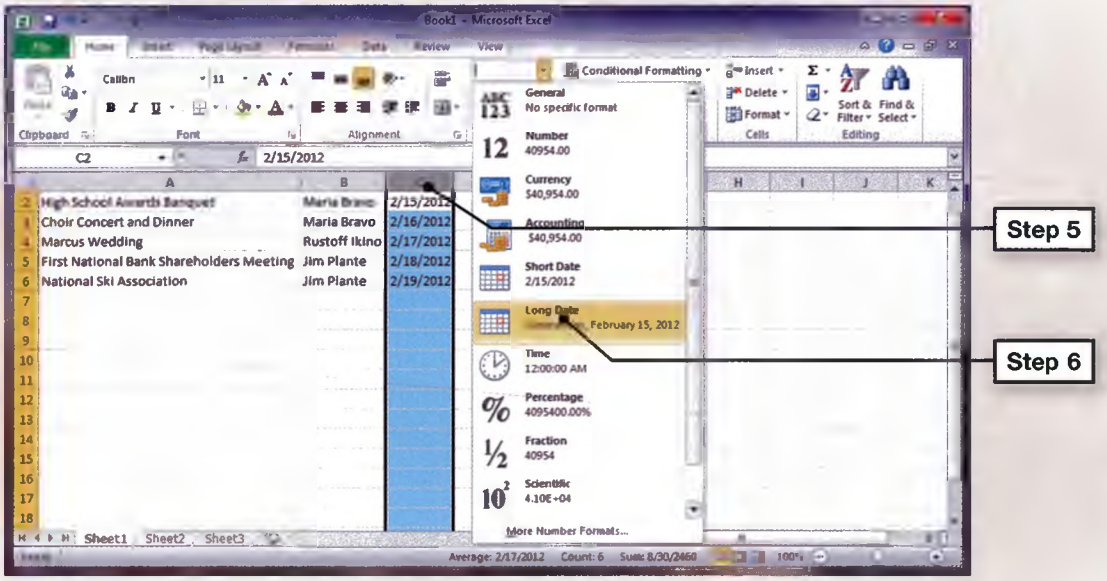


FIGURE 6-8
Data Format Options

7. Save your updated ***Special Events***, and then close the file.

LESSON 6-2 The Power of Formulas

IN THIS LESSON YOU WILL:

Objectives

1. Write formulas and solve problems using operators.
2. Learn to use cell references in formulas and to merge cells.
3. Calculate customary English measurement conversions and reverse the calculations.
4. Apply styles to worksheets.

Key Terms

arithmetic operators
cell references
exponent
formula
order of operations

SPREADSHEET FORMULAS AND OPERATORS

At the end of this chapter, we will talk about Science, Technology, Engineering, & Mathematics careers and academic degree programs. What do all of these careers have in common? They all require math skills.

This lesson will help you use a spreadsheet to solve some tricky math problems. You will learn how to solve everyday problems with spreadsheet formulas. A **formula** is a mathematical expression. In a spreadsheet, formulas are preceded by an equals sign (=). Spreadsheets can use **arithmetic operators** to add (+), subtract (−), multiply (*), and divide (/).

Another important tool is the **exponent** (^) operator, which helps make keying expressions simpler. If you need to multiply 5*5*5*5*5, use the ^ (also known as the caret symbol) and key 5^5. Look at Table 6-3 for a few examples of how operators can be used in formulas.

Operator	Example
Addition	=E7+G5
Subtraction	=A5−B3
Exponents	=5^5
Multiplication	=D9*D15
Division	=W17/T4
Multiple operators	=A5*(B5−C5)

TABLE 6-3 Arithmetic Operators

DIGITAL SNAPSHOT

The Order of Operations

When multiple operators are used in the same formula, operations are performed by spreadsheets following the same **order of operations** that you have probably already learned in your algebra class. The order in which operations are performed is:

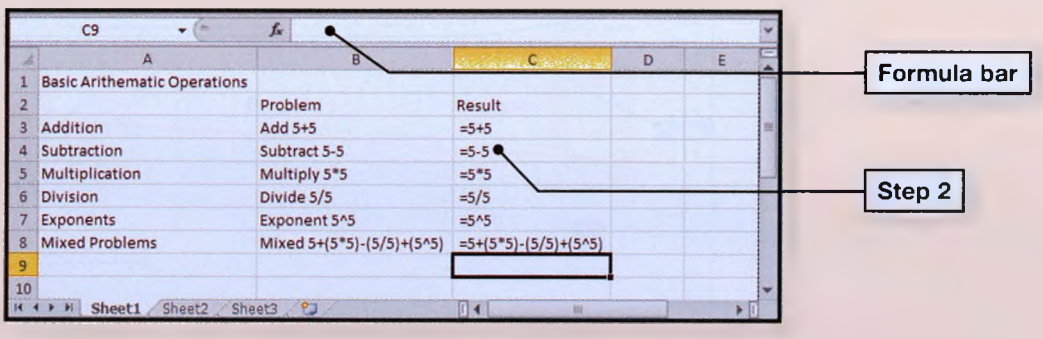
1. Exponential calculations [5^5].
2. Multiplication [5*5] and division [5/5] operations.
3. Addition [5+5] and subtraction [5-5] calculations.
4. Calculations are completed from left to right [→].
5. All operations inside parentheses are completed first (5*5) + (5/5) before other operations are completed. The use of parentheses will override the order of operations.

Activity 6-5 KEY TEXT AND FORMULAS

DigiTip

After you tap Enter, the formula will be replaced with the result. You will not see the formulas as they are shown in Figure 6-9.

1. Start Excel and open a blank worksheet.
2. Key the text and formulas exactly as seen in Figure 6-9. The operations keyed in column C will solve simple arithmetic problems. Make sure you tap **Enter** after you input each of these formulas so they calculate the desired results.



	A	B	C	D	E
1	Basic Arithematic Operations				
2		Problem	Result		
3	Addition	Add 5+5	=5+5		
4	Subtraction	Subtract 5-5	=5-5		
5	Multiplication	Multiply 5*5	=5*5		
6	Division	Divide 5/5	=5/5		
7	Exponents	Exponent 5^5	=5^5		
8	Mixed Problems	Mixed 5+(5*5)-(5/5)+(5^5)	=5+(5*5)-(5/5)+(5^5)		
9					
10					

FIGURE 6-9
Titles, Labels, and Formulas

3. Review your answers in the *Result* column C. Your answers should be 10, 0, 25, 1, 3125, and 3154.
4. In the first row, choose a **Fill Color** and **Bold** the title. Also, choose a **Fill Color** for the second row; then **Bold** and **Center** the labels in the second row.
5. Change all of the *5*s to **8**s in column C. For example, change = *5+5* to = **8+8**. There are several ways to do this. Try one of the following:
   a. Select the cell with the value to change. The current data, value, or formula will appear in the formula bar marked in Figure 6-9. Delete the old data, and key the new data.
   b. Select the cell with the value to change. The current data, value, or formula will appear in the formula bar. Select the portion of the data you want to change (in this case, the number *5*) and key the new value (the number **8**).

c. If you are familiar with the Find & Replace functions available in Office and other programs, click **Find & Select** from the *Editing* group on the Home tab. Choose **Replace**. Key **5** in the *Find what* text box and **8** in the *Replace with* text box. Choose **Find Next** and then **Replace** for each instance, or choose **Replace All** if you are sure you want to replace every instance of *5* in your spreadsheet.

6. Save your spreadsheet as ***Problem Solvers*** in your ***Chapter 6*** solutions folder.

USING CELL REFERENCES IN FORMULAS

If you have a lot of numbers to add, subtract, multiply, and divide, keying each formula by hand does not make a lot of sense. The key to solving such problems is using **cell references**. Cell references allow you to key numbers in cells and then create a formula to perform a calculation in another cell. For example, instead of writing *=76+85*, place the number *76* in cell A1 and the number *85* in cell B1 and key the expression *=A1+B1* in cell C1 as seen in Table 6-4.

When you want to change a number, such as *76* to *112* or *85* to *301*, the new sum will appear instantly.

	A	B	C
1	76	85	=A1+B1

TABLE 6-4 Cell References in a Formula

Activity 6-6 USING CELL REFERENCES

DigiTip

You may need to combine a few cells in order to center a title or label. This is done by selecting the cells you want to merge and choosing Merge & Center as marked in Figure 6-10.

1. If necessary, reopen ***Problem Solvers*** from your ***Chapter 6*** solutions folder.
2. Click or tap on **Sheet 2** as marked in Figure 6-10.
3. Key **Problem Solvers** in cell A1, and tap **Enter**. Then select cells **A1:A3** as seen in Figure 6-10.
4. Choose **Merge & Center** as marked in Figure 6-10.

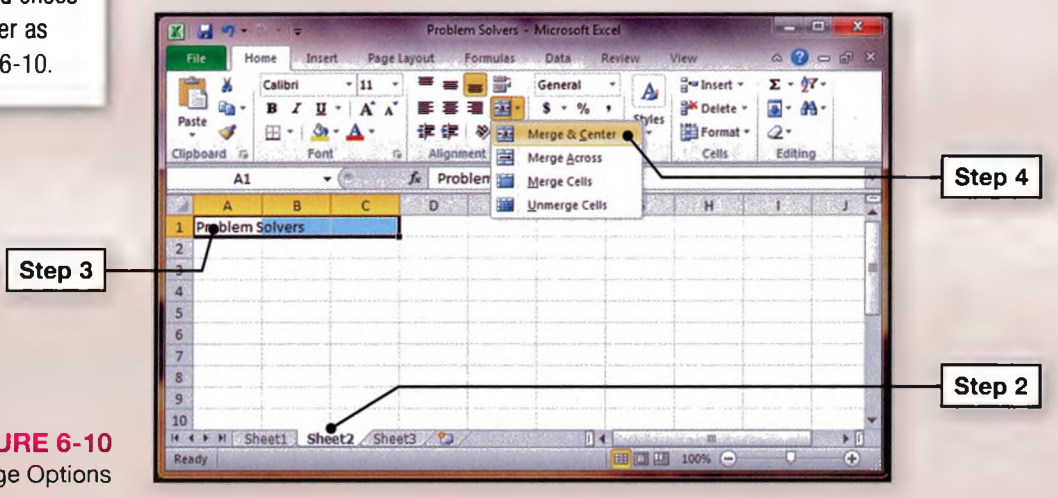


FIGURE 6-10 Cell Merge Options

5. Key the data as seen in Figure 6-11. Expand cell widths to show the entire words where necessary. In the *Results* column, key the formulas found in column D to solve the problems. Tap **Enter** after each formula so that the results are calculated.

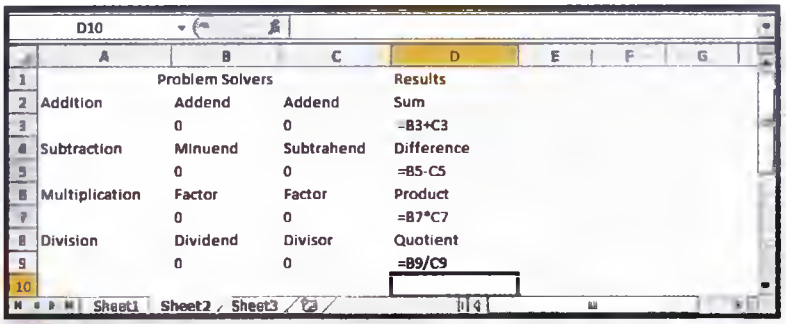


FIGURE 6-11
Data and Formulas Entered

INSTANT MESSAGE

As soon as you tap Enter, your formula will be replaced with the results of the calculation.

6. Select columns B, C, and D, and choose **Align Left** from the *Alignment* group on the Home tab. Otherwise, numbers are automatically aligned right.

7. **Center** and **Bold** row 1. Choose a **Fill Color** and a **Font Color** for the row similar to that shown in Figure 6-12.

8. Choose all the even rows (2, 4, 6, and 8), and apply a lighter **Fill Color** for these rows as seen in Figure 6-12. (*Note:* Use the Ctrl key to select and change four rows at a time.)

9. Key the numbers **2**, **3**, **4**, **5**, **6**, **7**, **8**, and **9** in columns B and C of the ***Problem Solvers*** spreadsheet as seen in Figure 6-12.

Tip

Select more than one row at a time by holding the Ctrl key while clicking on another row number.

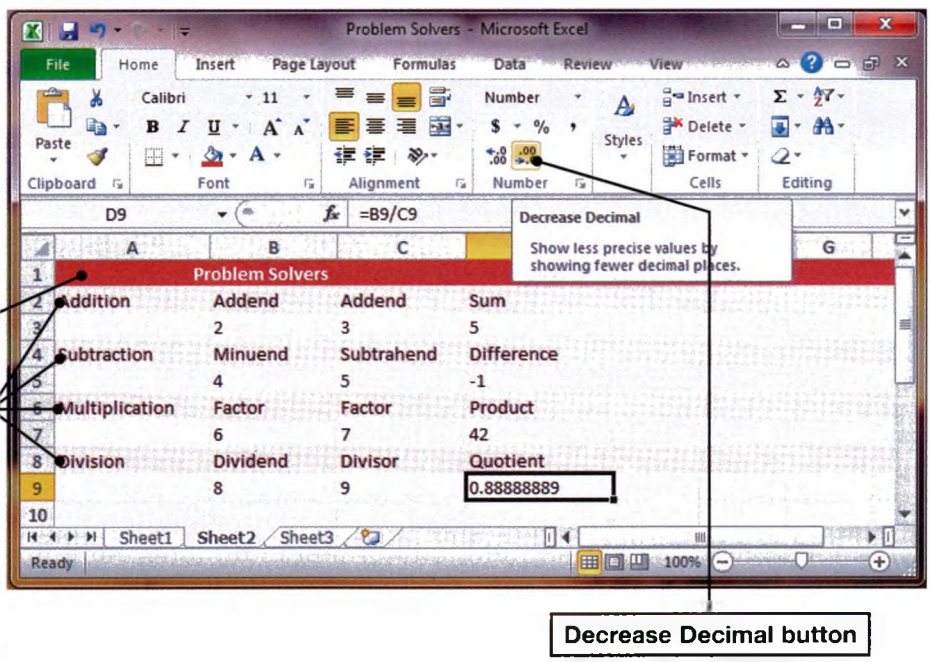


FIGURE 6-12
Problem Solvers Spreadsheet

INSTANT MESSAGE

Some of your numbers (e.g., 0.88888889 in Figure 6-12) get very long. Use the Decrease Decimal button to reduce it to two decimal places, to .89.

10. Change the numbers in your spreadsheet to the following.
    a. Change the addition problem's addends to **95** and **63**.
    b. Change the subtraction problem's minuend to **42** and the subtrahend to **36**.
    c. Change the multiplication problem's factors to **13** and **11**.
    d. Change the division problem's dividend to **56** and the divisor to **7**.

11. Check your answers, which should be 158, 6, 143, and 8.

12. Save your updated ***Problem Solvers*** spreadsheet file in your ***Chapter 6*** solutions folder.

CALCULATING CONVERSIONS

Spreadsheets can do much more than simple arithmetic. In this next set of exercises, use the powers of spreadsheet to calculate conversions to old customary English measurements like *inches into feet* and *feet into miles*.

Activity 6-7 KEY CONVERSIONS AND ADD STYLES

1. If necessary, reopen the ***Problem Solvers*** file from your ***Chapter 6*** solutions folder.
2. Click or tap on **Sheet 3** as marked in Figure 6-13.
3. Key **Calculate Conversions** in cell A1, and key the remaining data seen in columns A, B, and C in Figure 6-13. Adjust the column widths as needed to show all the data completely. Left-align columns B, C, and D.
4. Key the formulas found in column D. Make sure you tap **Enter** after each formula so it is accepted and the result is calculated.

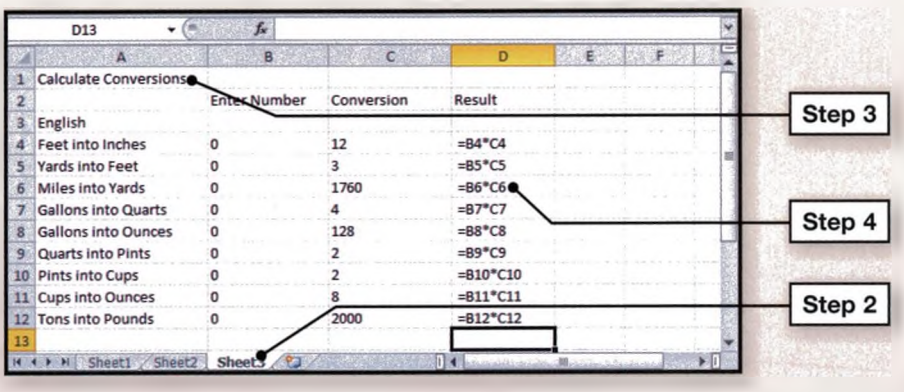


FIGURE 6-13
Conversion Formulas in *Sheet 3*

5. Select cells **A1:D12**.
6. Select **Format as Table** in the Home tab's *Styles* group as shown in Figure 6-14.
7. Pick a colorful Light style from the gallery, such as the one indicated in Figure 6-14. (*Note:* Choose **OK** when asked to verify the data range of the table.)

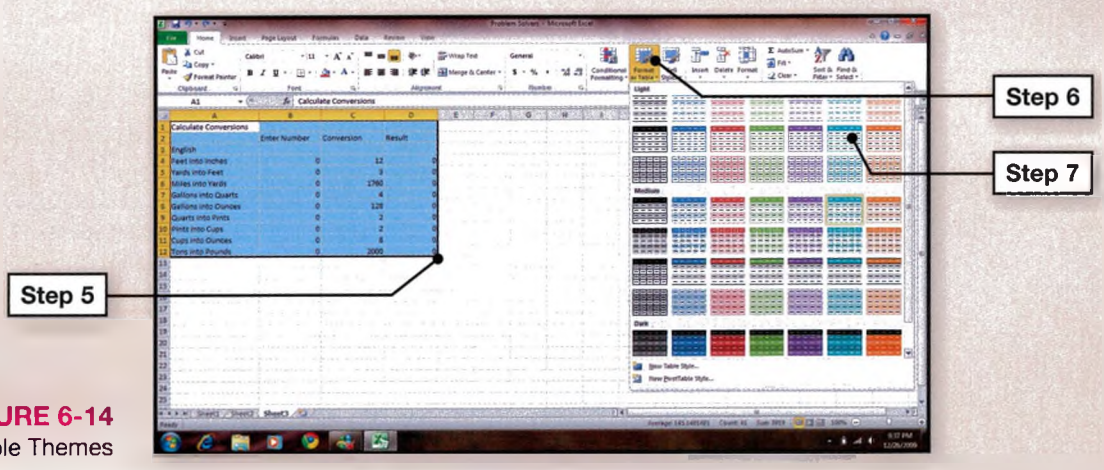


FIGURE 6-14
Table Themes

INSTANT MESSAGE

Notice that the *Format as Table* feature will add a row at the top of the worksheet that can be used for additional column headings and sorting of data.

8. Key the numbers listed in Table 6-5 to replace the zeros in column B.

Field	Value
Feet into Inches	1
Yards into Feet	10
Miles into Yards	0.25
Gallons into Quarts	10
Gallons into Ounces	0.5
Quarts into Pints	4
Pints into Cups	4
Cups into Ounces	5
Tons into Pounds	2.2

TABLE 6-5
Table Data

Your results should be the same as those shown in Table 6-6.

Customary Units	Result
Feet into Inches	12
Yards into Feet	30
Miles into Yards	440
Gallons into Quarts	40
Gallons into Ounces	64
Quarts into Pints	8
Pints into Cups	8
Cups into Ounces	40
Tons into Pounds	4400

TABLE 6-6
Conversion Results

9. Save the updated ***Problem Solvers*** spreadsheet file in your ***Chapter 6*** solutions folder.

Activity 6-8 REVERSE THE CONVERSIONS

1. If necessary, reopen the ***Problem Solvers*** file from your ***Chapter 6*** solutions folder.

2. Click or tap on **Sheet 3** if necessary, and key the data as seen in Table 6-7. Begin keying the data in row 14. Make the text in row 14 bold. The data will fill cells A14:B23.

	A	B	C	D
14	**Reverse**	**Key Number**	**Conversion**	**Result**
15	Inches into Feet	12		
16	Feet into Yards	14		
17	Yards into Miles	850		
18	Quarts into Gallons	4		
19	Ounces into Gallons	128		
20	Pints into Quarts	4		
21	Cups into Pints	8		
22	Ounces into Cups	14		
23	Pounds into Tons	3000		

TABLE 6-7
More Table Data

3. Add the conversion rates in Column C and the formulas in Column D to complete the worksheet.

4. Save your updated ***Problem Solvers*** file in your ***Chapter 6*** solutions folder.

LESSON 6-3 More Customizing and Converting Skills

IN THIS LESSON YOU WILL:

Objectives

1. Learn to rename worksheet tabs.
2. Solve metric conversion problems.
3. Convert metric to customary measurements.
4. Calculate temperature conversions.
5. Explore changing number formats and apply tenths, hundredths, currency, accounting, percentage, fractions, and scientific formats.

RENAME WORKSHEET TABS

Sometimes you will change your mind about the purpose of a particular worksheet tab, and you will want to change its name. No problem. A few clicks and you have renamed a worksheet's tab so you know what information is found under that heading. See how in Activity 6-9.

Activity 6-9 RENAME WORKSHEET TABS

1. If necessary, reopen the ***Problem Solvers*** file from your ***Chapter 6*** solutions folder.

2. Right-click the **Sheet 1** tab, and choose **Rename** from the list as seen in Figure 6-15. Name the tab **Operators**.

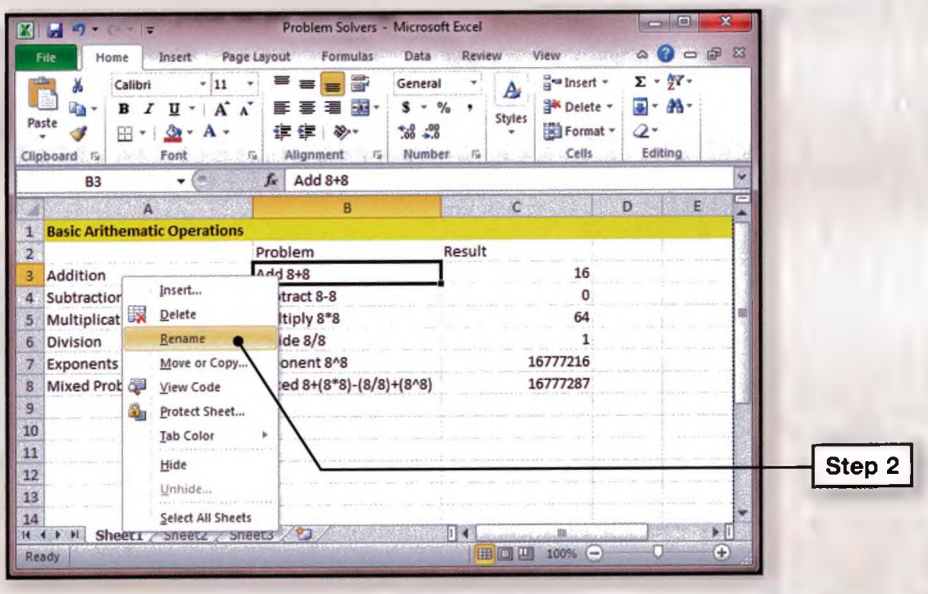


FIGURE 6-15
Rename a Sheet's Tab

INSTANT MESSAGE

You can also double-click a sheet tab to edit the name.

3. Right-click the **Sheet 2** tab, and choose **Rename**. Name the tab **References** as seen in Figure 6-16.
4. Right-click the **Sheet 3** tab, and choose **Rename**. Name the tab **Customary** as seen in Figure 6-16.
5. Click or tap on **Insert Worksheet** (next to the renamed *Customary* tab) marked in Figure 6-16. This will create *Sheet 4*. Name this new sheet **Metric**.

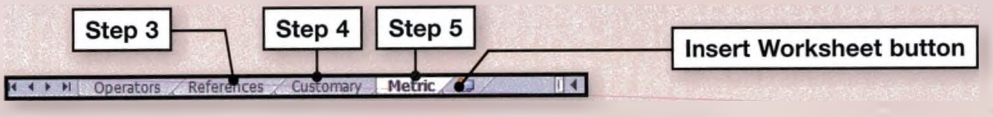


FIGURE 6-16
Tabs Renamed

6. Save your updated ***Problem Solvers*** spreadsheet file in your ***Chapter 6*** solutions folder.

CONVERTING TO METRIC MEASUREMENTS

The United States is one of the few countries in the world that still uses the old customary English-style measurements. If you live outside the United States and travel to the States, you need to know how to convert from metric measurements. If you live in the United States and travel abroad, you need to be able to convert from the old English measurements to the metric system that most of the world uses. And while you are at it, you should learn how to convert from smaller metric units to larger units, such as from meters to kilometers. You will find this easy to do because every conversion is a multiple of 10.

Activity 6-10 SOLVE METRIC CONVERSION PROBLEMS

1. If necessary, reopen the ***Problem Solvers*** file from your ***Chapter 6*** solutions folder.
2. Click or tap on the new **Metric** tab created in Activity 6-9.
3. Key the data as seen in Figure 6-17. Key the formulas found in column D. Tap **Enter** after you key each formula so it is accepted.

D10

	A	B	C	D	E	F	G
1	Calculate Conversions						
2		Enter Number	Conversion	Result			
3	Metric						
4	Centimeters into Millimeters		5	10	=B4*C4		
5	Meters into Centimeters		5	100	=B5*C5		
6	Kilometers into Meters		5	1000	=B6*C6		
7	Liters into Milliliters		5	1000	=B7*C7		
8	Kilograms into Grams		5	1000	=B8*C8		
9	Grams into Milligrams		5	1000	=B9*C9		
10							
11							

Operators References Customary Metric

FIGURE 6-17
Metric Conversions

4. Compare your answers. If you have keyed your formulas and conversion rates properly, your results should be **50**, **500**, **5000**, **5000**, **5000**, and **5000**.
5. Key the data as seen in Table 6-8. Begin keying the data in row 10. Make the text in row 10 bold. The data will fill cells A11:B16.

	A	B	C	D
10	**Reverse**	**Key Number**	**Conversion**	**Result**
11	Millimeters into Centimeters	1010		
12	Centimeters into Meters	111		
13	Meters into Kilometers	4000		
14	Milliliters into Liters	400		
15	Grams into Kilograms	14		
16	Milligrams into Grams	250		

TABLE 6-8
Metric Conversions Reversed

6. Consider how to reverse the conversions. After you have figured out the formula and conversion rates, finish the worksheet.
7. Select cells **A1**:**D16**; then pick **Format as Table** in the Home tab's *Styles* group. Pick a style from the gallery. (*Note:* Choose **OK** when asked.)
8. Save your updated ***Problem Solvers*** spreadsheet file in your ***Chapter 6*** solutions folder.

Activity 6-11 CONVERT METRIC INTO CUSTOMARY

1. If necessary, reopen the ***Problem Solvers*** file from your ***Chapter 6*** solutions folder.
2. Click or tap on **Insert Worksheet** (next to the *Metric* tab). This will create *Sheet 5*. Name this new sheet **Metric to English**.
3. Key the data as seen in Figure 6-18. The conversion rates marked in Figure 6-18 are a bit longer than they appear. For more accurate conversions, key these longer numbers instead:
   a. In C4, key **0.393700787**.
   b. In C5, key **39.3700787**.
   c. In C6, key **0.621371192**.
4. Use the **Decrease Decimal** button to reduce the visible decimal places to two. (*Note:* After you complete your calculations, round the number of decimal places to two in the cells marked in Figure 6-18. Select the cells individually and click the **Decrease Decimal** button on the *Number* group. The remaining numbers are not deleted but are hidden and can be viewed again by clicking the Increase Decimal button next to the Decrease Decimal button.)
5. Key the formulas found in column D. (*Note:* Use the Decrease Decimal button to round the results in Column D to two decimal places.)
   a. In cell D4, key **=B4*C4**.
   b. In cell D5, key **=B5*C5**.
   c. In cell D6, key **=B6*C6**.

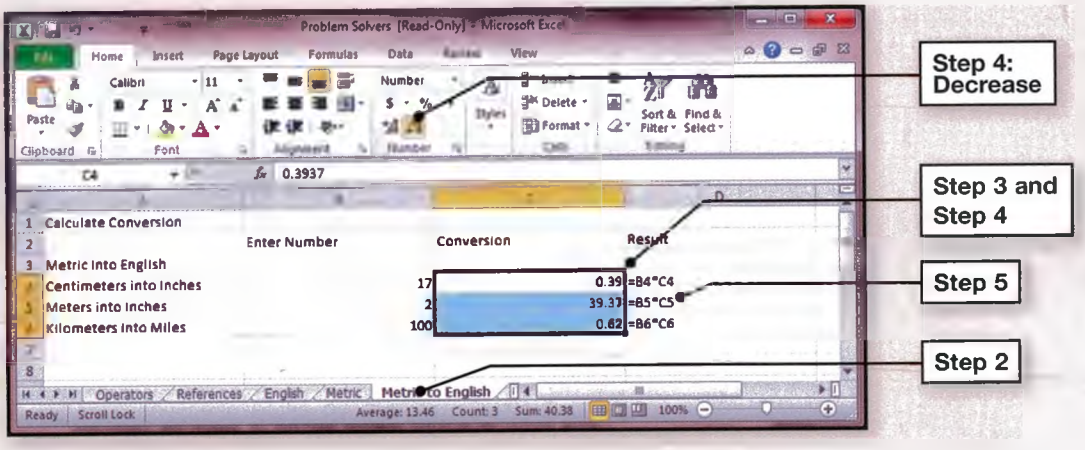


FIGURE 6-18
Metric to English Conversions

	A	B
7	English Customary to Metric	
8	Inches into Centimeters	100
9	Inches into Meters	100
10	Miles into Kilometers	4000

TABLE 6-9 English to Metric Conversions

6. Key the data seen in Table 6-9. Begin keying the data in row 8. Make the text in row 8 bold. The data will fill cells A7:B10.
7. Consider how to reverse the conversions. After you have figured out the required conversion rates and formulas, finish the worksheet.
8. Select cells **A1:D10**; then pick **Format as Table** in the Home tab's *Styles* group. Pick a suitable style from the gallery. (*Note:* Choose **OK** when asked.)
9. Save your updated ***Problem Solvers*** spreadsheet file in your ***Chapter 6*** solutions folder.

CONVERTING FAHRENHEIT TO CELSIUS

Most of the world also has converted from the older Fahrenheit system to the Celsius temperature system. Converting Fahrenheit and Celsius temperatures requires somewhat more complicated formulas, as seen in Table 6-10.

Conversion	Formula
Fahrenheit to Celsius	=(Fahrenheit –32)*5/9
Celsius to Fahrenheit	=(5/9)*Celsius+32

TABLE 6-10
Temperature Conversions

Activity 6-12 CONVERT TEMPERATURES

1. If necessary, reopen your ***Problem Solvers*** file from your ***Chapter 6*** solutions folder.
2. Click or tap on **Insert Worksheet** (next to the *Metric to English* tab) marked in Figure 6-19. This will create *Sheet 6*. Name this new sheet **Temperatures**.
3. Key the data as seen in Figure 6-19, including the formulas found in column D:
   a. In cell C4, key **=(B4–32)*5/9**.
   b. In cell C5, key **=(5/9)*B5+32**.

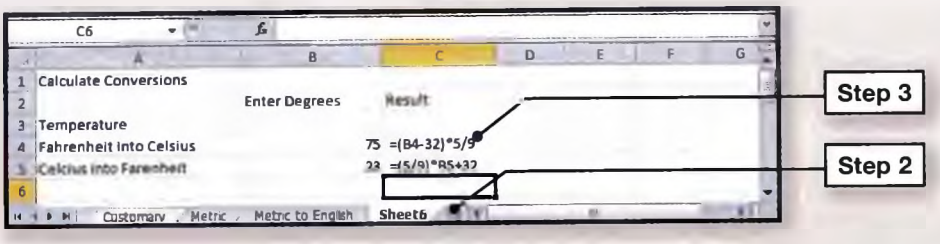


FIGURE 6-19
Temperature Conversion Rates

4. Select cells **A1:C5**; then pick **Format as Table** in the Home tab's *Styles* group. Pick a style from the gallery. (*Note:* Choose **OK** when asked to verify the range.)
5. Select the results in cells **C4** and **C5** as seen in Figure 6-20.
6. Click or tap **Decrease Decimal** on the Home tab's *Number* group. Reduce the temperature results to just one decimal place (or tenths). (Your answers will then be 23.9 and 44.8 degrees.)
7. Save your updated ***Problem Solvers*** spreadsheet file in your ***Chapter 6*** solutions folder.

CONVERTING FORMATS

Numbers can appear in a variety of ways. For example, the number 5.5 can be converted to 5½ or can be converted to a currency like $5.50. Spreadsheets control how numbers are displayed by using formats, as explored at the end of this lesson.

Activity 6-13 COPY NUMBER FORMATS

1. If necessary, reopen the ***Problem Solvers*** file from your ***Chapter 6*** solutions folder.
2. Click or tap on **Insert Worksheet** (next to the *Temperatures* tab). Name this new sheet **Formats**.
3. Key all of the data seen in Figure 6-20. Do not forget to key the numbers in cells A3:A12.
4. Choose cells **A3:A12**. Find the fill handle in the bottom right corner of cell A12. Touch and drag the fill handle to the right eight columns; then release, as indicated in Figure 6-20.

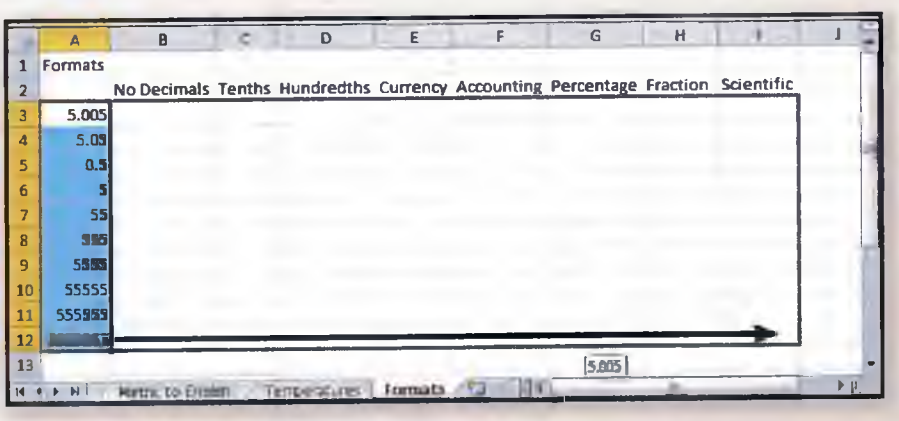


FIGURE 6-20
Formats Sheet of Problem Solvers Worksheet

INSTANT MESSAGE

After step 4, the cells in columns B through I will be automatically filled with the numbers from the first column, as seen in Figure 6-21.

5. Select cells **B3:D12** as seen in Figure 6-21.
6. Choose the down arrow on the right-hand side of the **Number Format** feature found on the Home tab's *Number* group.
7. Choose the **Number** format option from the gallery as seen in Figure 6-21. (*Note:* All three columns will display numbers rounded to only two decimal places.)

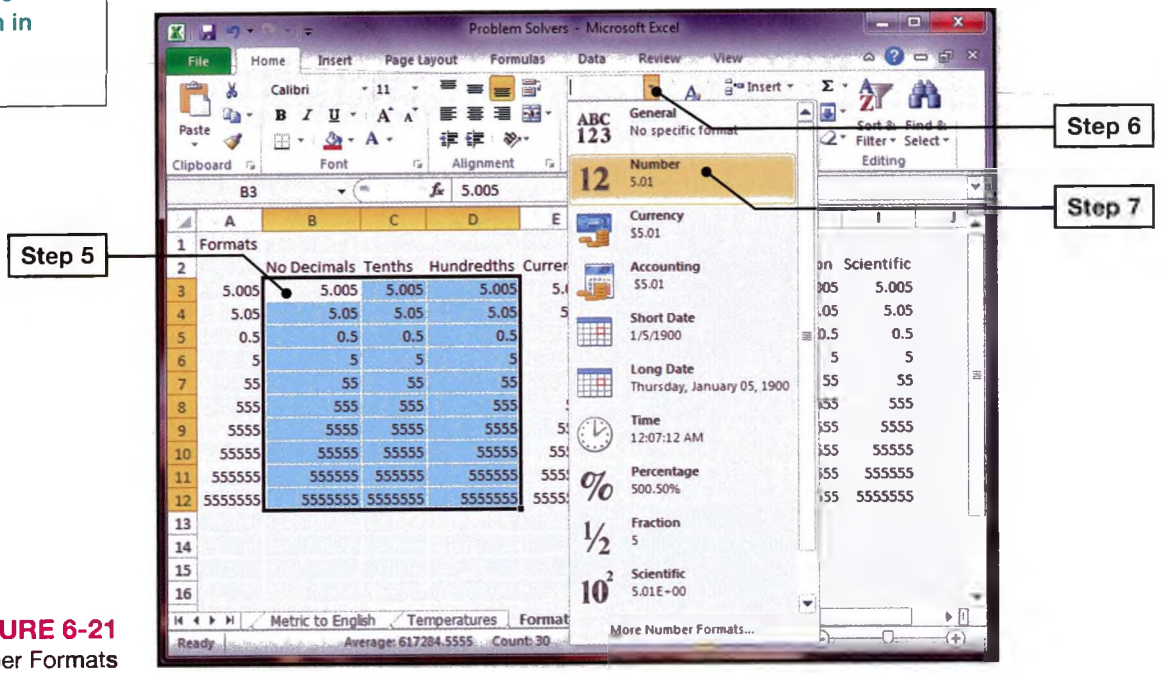


FIGURE 6-21
Number Formats

8. Select cells **B3:B12** as seen in Figure 6-22.
9. Click or tap **Decrease Decimal** three times on the Home tab's *Number* group. Eliminate all the decimals as seen in Figure 6-22.
10. Select cells **C3:C12**. Click or tap **Decrease Decimal** two times on the Home tab's *Number* group to set the number of decimal places to one (or tenths).
11. Select cells **D3:D12**. It should not be necessary if you completed step 7, but if it is, click or tap **Decrease Decimal** one time on the Home tab's *Number* group to display two decimals (or hundredths).
12. Select cells **E3:E12** as seen in Figure 6-22.
13. Choose the down arrow on the right-hand side of the **Number Format** text box found on the Home tab's *Number* group.
14. Choose the **Currency** format option from the gallery as seen in Figure 6-22.
15. Select cells **F3:F12**. Choose **Number Format** found on the Home tab's *Number* group. Choose the **Accounting** format option from the gallery.
16. Select cells **G3:G12**. Choose **Number Format** found on the Home tab's *Number* group. Choose the **Percentage** format option from the gallery.
17. Select cells **H3:H12**. Choose **Number Format** found on the Home tab's *Number* group. Choose the **Fraction** format option from the gallery.

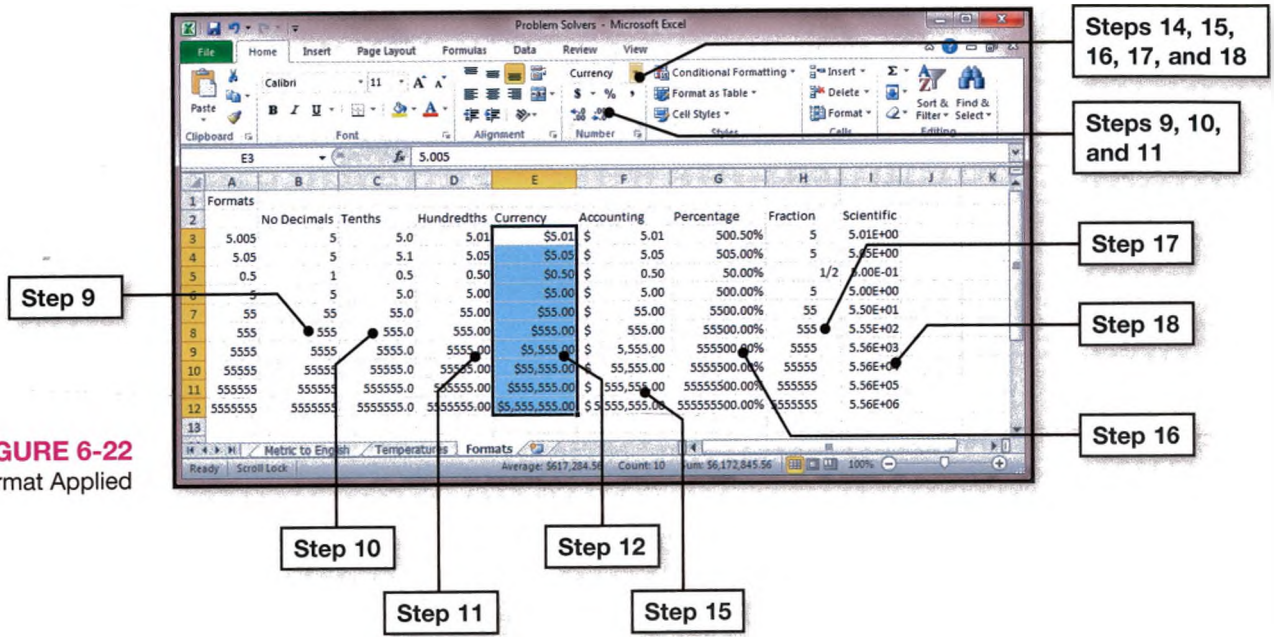


FIGURE 6-22
Currency Format Applied

18. Select cells **I3:I12**. Choose **Number Format** found on the Home tab's *Number* group. Choose the **Scientific** format option from the gallery.

19. Select row **1**; then pick **Cell Styles** in the Home tab's *Styles* group. Pick **Heading 1** from the gallery as seen in Figure 6-23.

20. Select row **2**; then pick **Cell Styles** in the Home tab's *Styles* group. Pick **Heading 2** from the gallery as seen in Figure 6-23.

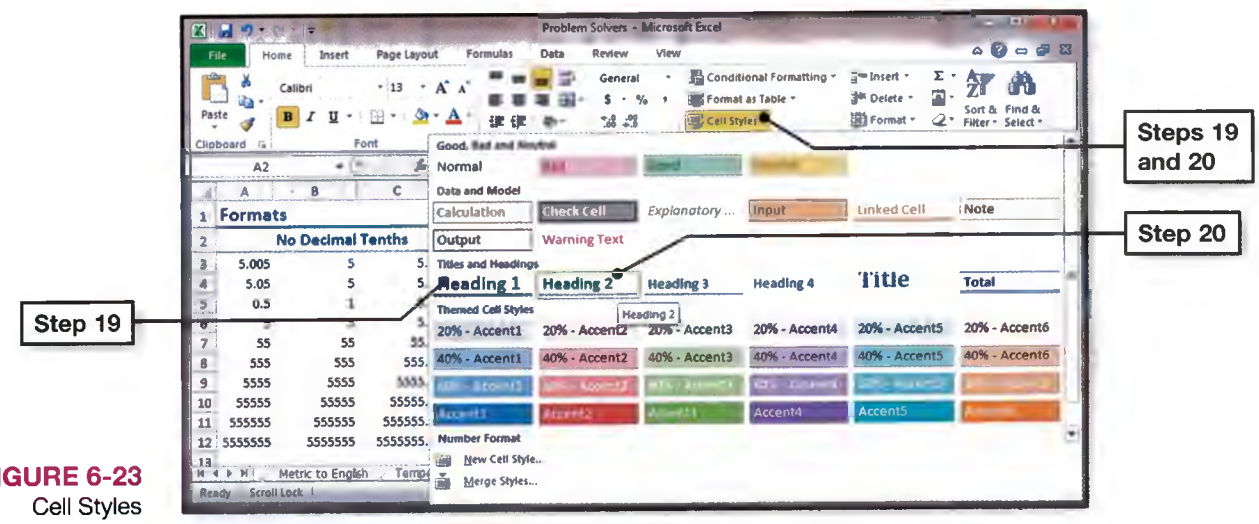


FIGURE 6-23
Cell Styles

21. Select cells **A3:I12**. Choose the **Sort & Filter** button's down arrow found on the Home tab's *Editing* group. Choose the **Sort Largest to Smallest** format option from the gallery as seen in Figure 6-24.

22. Save your updated ***Problem Solvers*** spreadsheet file in your ***Chapter 6*** solutions folder.

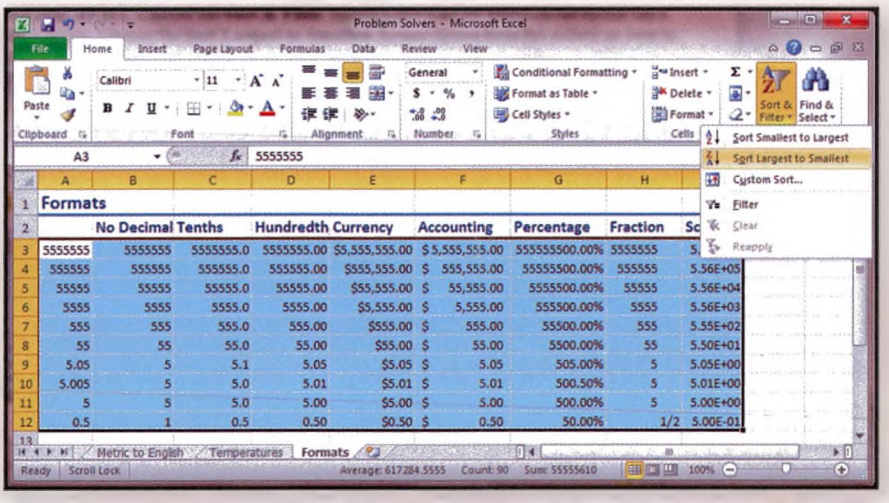


FIGURE 6-24
Sorting Numbers

LESSON 6-4 Flowing Forms and Fantastic Functions

IN THIS LESSON YOU WILL:

Objectives

1. Create formulas using functions.
2. Calculate costs, profits, and totals.
3. Create pie, graph, and bar charts.
4. Learn to use charts in corporate decision making.
5. Learn to use charts in personal decision making.
6. Apply your spreadsheet knowledge to everyday activities.

Key Terms

Average function
bar chart
column chart
Count function
functions
line chart
Max function
Min function
pie charts
Sum function

FUNCTIONAL FORMULAS

Excel provides powerful **functions** to help you perform calculations. Functions, like formulas, are preceded by an equals sign (=). A few sample functions include:

Sum function	Add the numerical values in selected cells.
Count function	Count how many cells have numerical values.
Average function	Find the average of numerical values in selected cells.
Min function	Find the lowest or minimum number in selected cells.
Max function	Find the highest or maximum number in selected cells.

Functions are used in formulas. A formula can consist of selected cells and a function. In spreadsheets, individual cells can be chosen as well as numerical values in a range of cells. A range is any set of cells in a sequence separated by a colon (:).

=SUM(D1:D7) This formula sums numerical values in the range of cells D1 to D7.

Cells chosen from a variety of cells can be separated by commas.

=SUM(G21,B7,I5) This formula sums numerical values in three unconnected cells.

Cell	Value
C7	Total
C8	Count of Events
C9	Average Per Event
C10	Smallest Group
C11	Largest Group

TABLE 6-11 Spreadsheet Data Column C

1. Start Excel and reopen the ***Special Events*** spreadsheet from your ***Chapter 6*** solutions folder.
2. Key the text values in cells C7:C11 that are shown in Table 6-11.
3. Select cells **C7:C11**. **Bold** and **Align Right** the contents of the cells so they appear as seen in Figure 6-25.
4. Make cell **D7** the active cell; choose the **Auto Sum** drop-down arrow from the Home tab's *Editing* group, as seen in Figure 6-25; and then choose **Sum**.

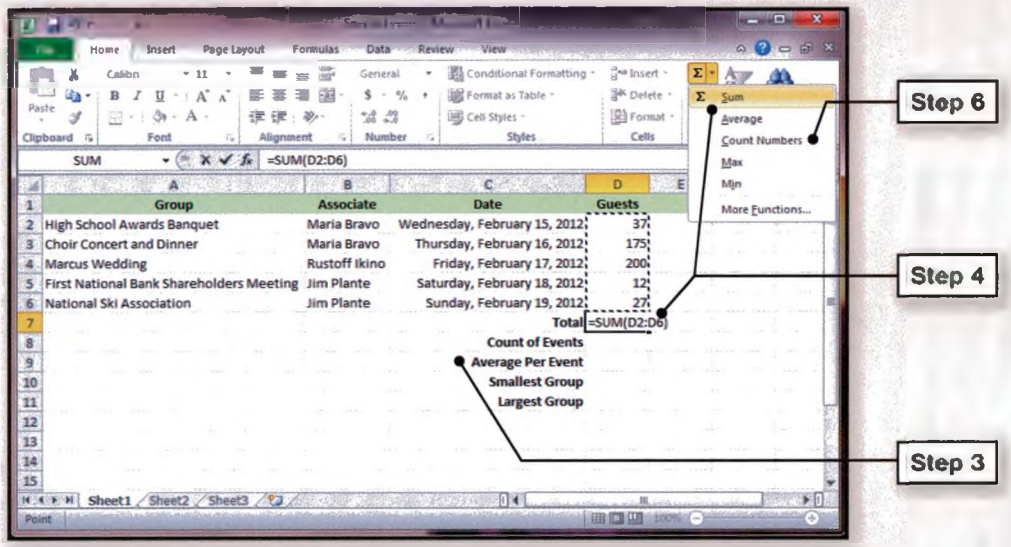


FIGURE 6-25 The SUM Function

DigiTip

As soon as you click the Sum function button, the proper formula will be keyed in the active cell as seen in Figure 6-25. Also, the range of cells directly above the active cell will be placed in a range. All you need to do is tap Enter to have the formula accepted.

5. Tap the **Enter** key.

DigiTip

Other functions work the same way as the Sum function, but in our Count example, as seen in Figure 6-26, you need to manually select the range so as not to include the value found in cell D7.

6. Make **D8** the active cell, select the **Auto Sum** drop-down arrow, and then choose the **Count Numbers** function as seen in Figure 6-25.
7. Select cells **D2:D6**, and tap the **Enter** key. (See Figure 6-26.)

C	D	E
Date	Guests	
Wednesday, February 15, 2012	37	
Thursday, February 16, 2012	175	
Friday, February 17, 2012	200	
Saturday, February 18, 2012	12	
Sunday, February 19, 2012	27	
Total	451	
Count of Events	=COUNT(D2:D6)	
Average Per Event		
Smallest Group		
Largest Group		

FIGURE 6-26 Count Formula

8. Make cell **D9** the active cell, select the **Auto Sum** drop-down arrow, and then choose the **Average** function. Select cells **D2:D6**, and tap the **Enter** key. (See Figure 6-27.)
9. Make cell **D10** the active cell, select the **Auto Sum** drop-down arrow, and then choose the **Min** (Minimum) function. Select cells **D2:D6**, and tap the **Enter** key.
10. Make cell **D11** the active cell, select the **Auto Sum** drop-down arrow, and then choose the **Max** (Maximum) function. Select cells **D2:D6**, and tap the **Enter** key.
11. Save the updated ***Special Events*** spreadsheet in your ***Chapter 6*** solutions folder.

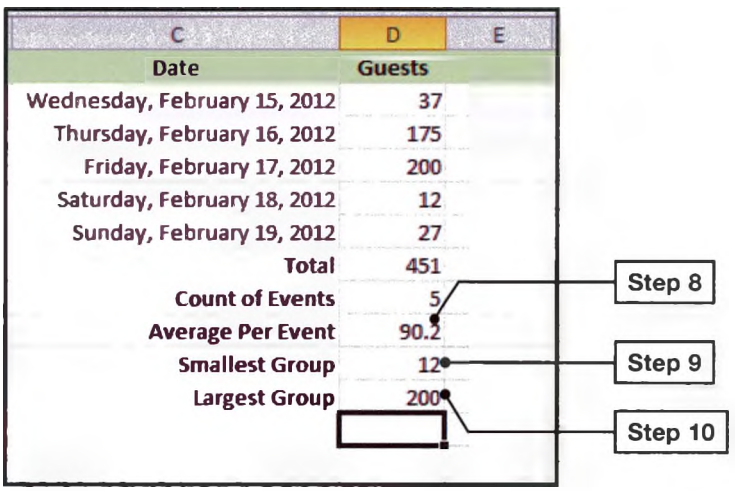


FIGURE 6-27
Auto Sum Results

CALCULATING COSTS, PROFITS, AND TOTALS

The types of events vary greatly at the TravelView Mountain Lodge. Some involve school groups with inexpensive menus of less than $8 per person. Other groups order more expensive meals, as high as $30. The lodge tries to meet the needs of every group.

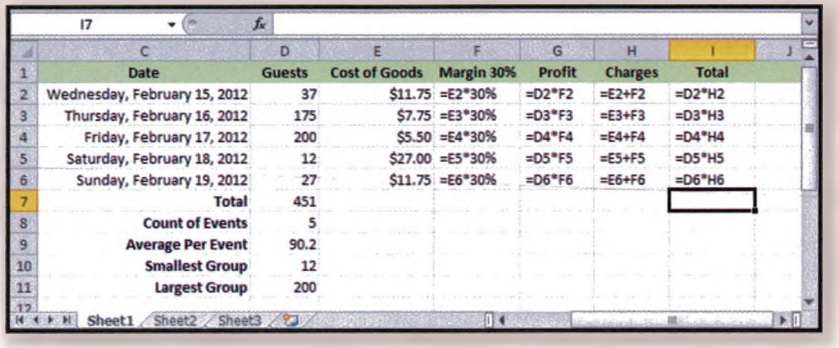
But which events are most profitable? Melissa needs to find out so she can market to the most profitable community groups. To gather this information, she adds some important calculations to her *Special Events 2* spreadsheet.

- In column E, the cost of making each individual meal has been keyed into the spreadsheet.
- In column F, a 30 percent profit has been added using a formula.
- In column G, the profit is calculated by multiplying the number of guests by the profit margin.
- In column H, the total charges for each meal are calculated by adding the cost of goods with the profit.
- In column I, a total to be charged each group is calculated by multiplying the total charges by the number of guests, as seen in Figure 6-28.

You will make these same additions to your spreadsheet in Activity 6-15.

Activity 6-15 CALCULATE COSTS AND PROFITS

1. If necessary, reopen ***Special Events*** from your ***Chapter 6*** solutions folder.
2. Key the values and formulas into cells E1:I6, as seen in Figure 6-28.



	C	D	E	F	G	H	I
1	Date	Guests	Cost of Goods	Margin 30%	Profit	Charges	Total
2	Wednesday, February 15, 2012	37	$11.75	=E2*30%	=D2*F2	=E2+F2	=D2*H2
3	Thursday, February 16, 2012	175	$7.75	=E3*30%	=D3*F3	=E3+F3	=D3*H3
4	Friday, February 17, 2012	200	$5.50	=E4*30%	=D4*F4	=E4+F4	=D4*H4
5	Saturday, February 18, 2012	12	$27.00	=E5*30%	=D5*F5	=E5+F5	=D5*H5
6	Sunday, February 19, 2012	27	$11.75	=E6*30%	=D6*F6	=E6+F6	=D6*H6
7	Total	451					
8	Count of Events	5					
9	Average Per Event	90.2					
10	Smallest Group	12					
11	Largest Group	200					

FIGURE 6-28
Values and Formulas

3. Select cells **E2:I6**, and change the number format to **Currency**.
4. Compare your answers with those seen in Figure 6-29.

D	E	F	G	H	I
Guests	Cost of Goods	Margin 30%	Profit	Charges	Total
37	$11.75	$3.53	$130.43	$15.28	$565.18
175	$7.75	$2.33	$406.88	$10.08	$1,763.13
200	$5.50	$1.65	$330.00	$7.15	$1,430.00
12	$27.00	$8.10	$97.20	$35.10	$421.20
27	$11.75	$3.53	$95.18	$15.28	$412.43

FIGURE 6-29
Spreadsheet Results

5. Review the data to answer the following questions. There are several ways to get to the right answers.
   - **a.** What was the total charged for all five events?
   - **b.** What is the total profit for all five events?
   - **c.** What is the total cost for all five events?
   - **d.** Which group was most profitable?
   - **e.** Which group was least profitable?
6. Save the updated ***Special Events*** spreadsheet file in your ***Chapter 6*** solutions folder.

MAKING THE CASE WITH GRAPHS AND CHARTS

Microsoft Excel gives you the ability to use powerful charts and graphs to explain your calculations and conclusions. Let's face it, explanations with a lot of numbers tend to confuse people. Representing numbers in a graphical chart or an image will make it easier for an audience to understand what the numbers mean.

Several basic types of charts are useful for illustrating data.

- **Column** and **bar charts** depict information in a graph format and use columns or bars of solid color to highlight the information.

INSTANT MESSAGE

Graphs and charts created in Excel can be copied and pasted into OneNote, PowerPoint, and Word files.

- A **line chart** follows the graph as a line and is used to show trends. Note the differences in the next few steps.
- **Pie charts** segment the information as if cut from larger and smaller slices of pie. The pieces can be pulled out to make them clearly visible.

In this next activity, Melissa needs to make the case that certain lodge events are more profitable than others. She wants to present her ideas to her team so they understand why they should focus their marketing efforts on those groups in order to maximize profits each week. Help her review her options for presenting the information graphically by following the steps in the next activity.

Activity 6-16 GRAPH YOUR RESULTS

1. If necessary, reopen ***Special Events*** from your ***Chapter 6*** solutions folder.
2. Right-click the *Sheet 1* tab, and rename it **Event Data.**
3. Click or tap **Sheet 2** next to the *Event Data* tab. Rename this sheet **Charts**.
4. Key the data seen in Table 6-12 into cells A1:B5. Use the Number Format drop-down text box to make the values in Column B appear as currency.

	A	B
1	High School Awards Banquet	$130.43
2	Choir Concert and Dinner	$406.88
3	Marcus Wedding	$330.00
4	First National Bank Shareholders Meeting	$97.20
5	National Ski Association	$95.18

TABLE 6-12
Spreadsheet Chart Data

5. Select cells **A1:B5** as seen in Figure 6-30.
6. Choose the **Insert** tab.
7. Choose **Column** from the *Charts* group, and pick one of the column chart options from the gallery. Drag the chart within your spreadsheet to see the worksheet data and the chart at the same time. (See Figure 6-30.)

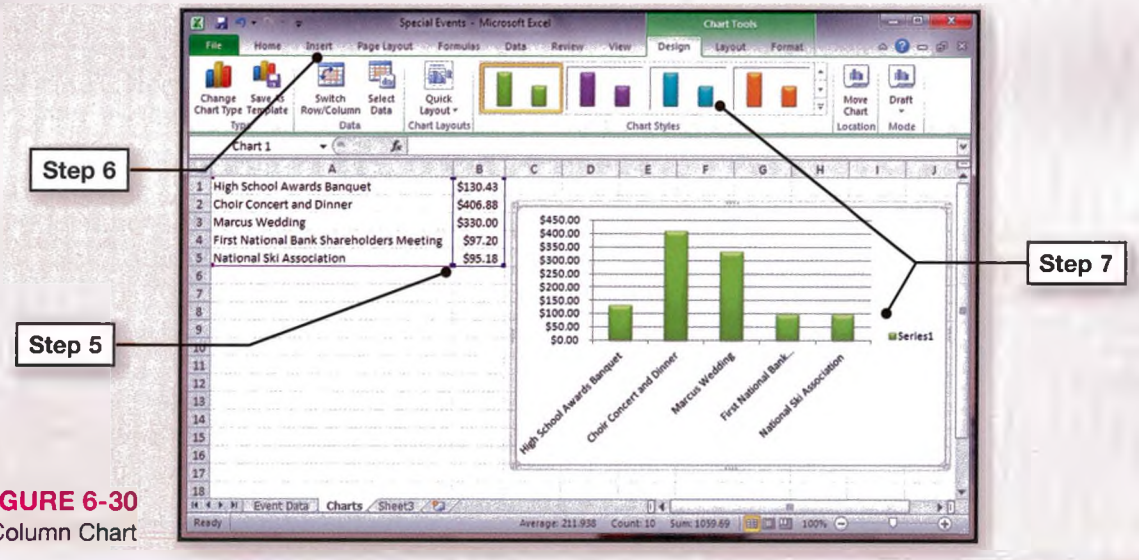


FIGURE 6-30
Column Chart

8. Select **A1:B5** again, and choose the **Insert** tab. Choose **Line** from the *Charts* group, and pick a line chart from the gallery. Place the chart over the top of the existing one, or drag the chart to another location so that both charts are visible. (See Figure 6-31.)

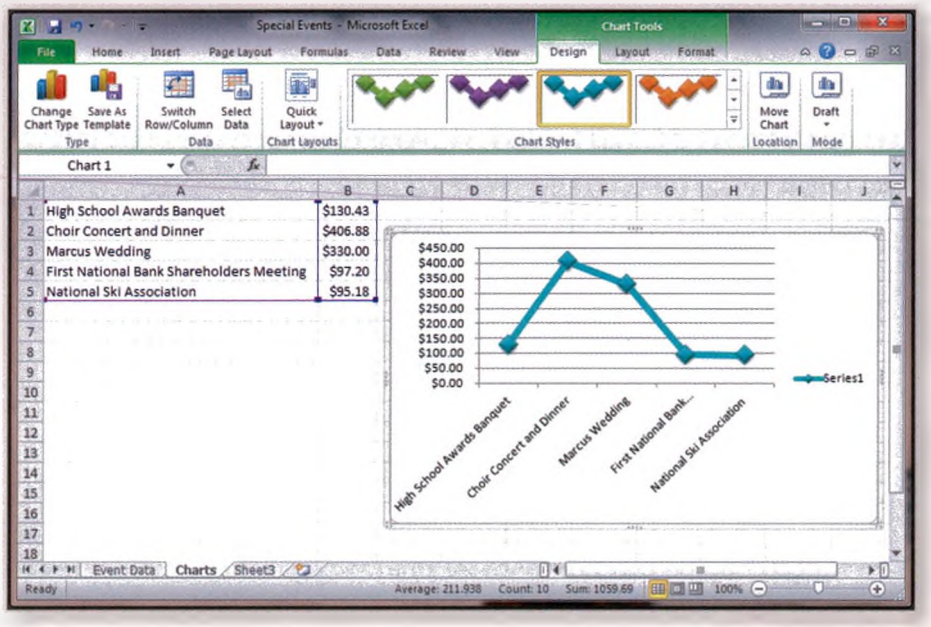


FIGURE 6-31
Line Chart

9. Select **A1:B5** again, and choose the **Insert** tab. Choose **Bar** from the *Charts* group, and pick a bar chart from the gallery. Place this new chart over the top of an existing one to view the data and the chart at the same time, or drag the chart to another location within your worksheet so that both charts are visible. (See Figure 6-32.)

DigiTip

To clearly show the values of the bar chart, the width of the chart has to be expanded by clicking and dragging the right margin to the right.

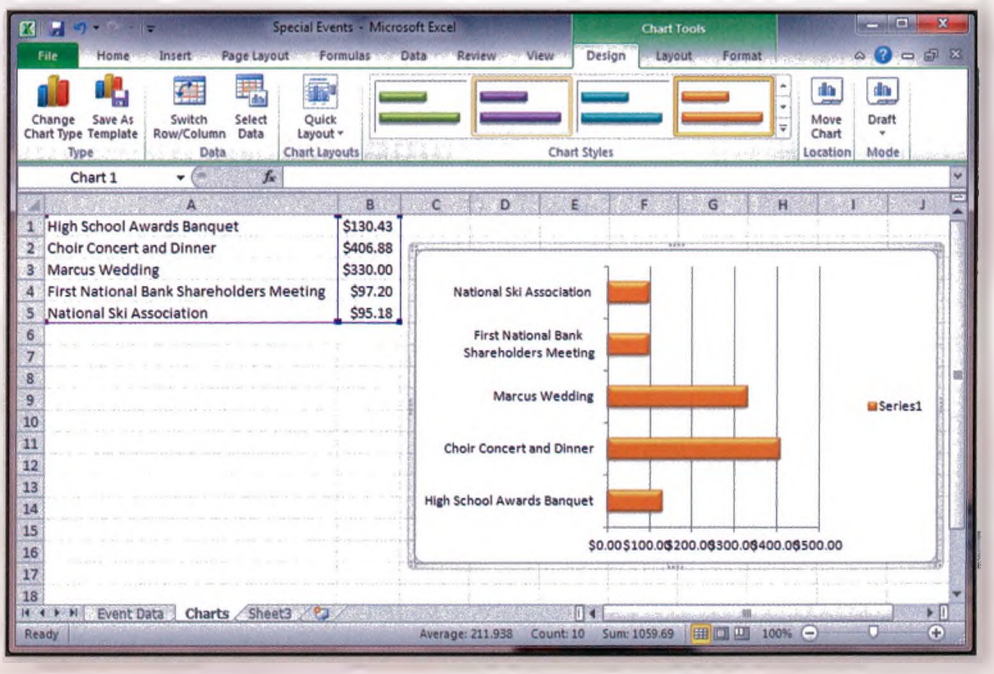


FIGURE 6-32
Bar Chart

10. Select **A1:B5** again, and choose the **Insert** tab. Choose **Pie** from the *Charts* group, and pick a pie chart option from the gallery. Place the chart over the top of the existing one in order to view the data and the chart at the same time. (See Figure 6-33.)

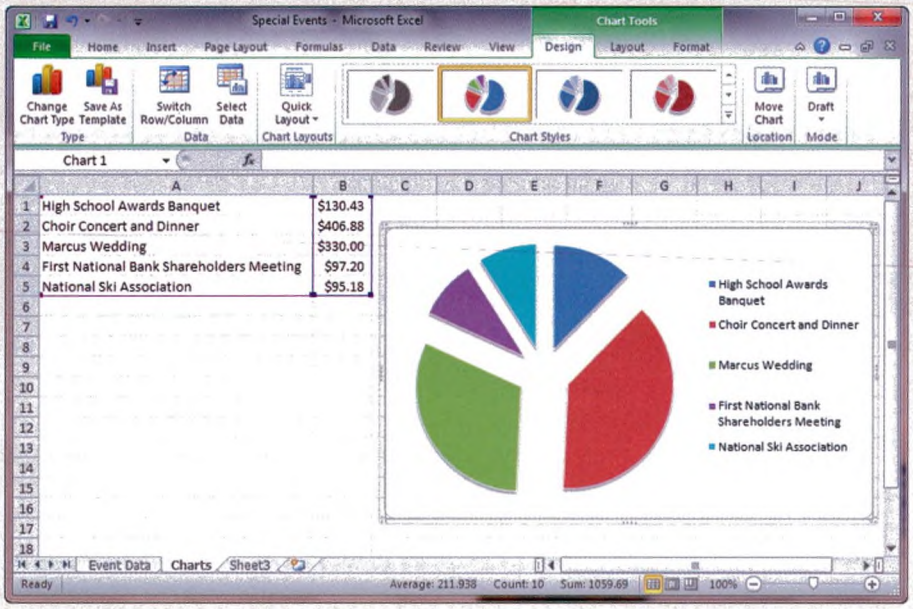


FIGURE 6-33
Pie Chart

11. Compare the different types of charts you have created in this activity with those of your classmates. Which type of chart represents this particular data most clearly? Which will most easily convey Melissa's point that certain lodge events are more profitable than others?

12. Save ***Special Events*** in your ***Chapter 6*** solutions folder, and then close the file.

USING CHARTS IN DECISION MAKING

The TravelView Mountain Lodge must purchase a new car, van, SUV, or truck to haul passengers to and from the nearby Denver airport. The decision makers cannot decide what to buy! The new vehicles must travel 37 miles to the airport, pick up visitors, and travel the 37 miles back to the lodge. As many as 25 people need to be picked up or taken to the airport each day at different times.

What vehicle would be the best to buy? Consider the following factors:

- Miles per gallon
- Original cost of the vehicle
- Number of passengers per vehicle

To help determine the best vehicle for the lodge, go online and look for three possible vehicles. You can also visit local car lots and get background information on options. Compare the three options in your spreadsheet, and come up with a conclusion about which vehicle to buy.

Activity 6-17 LODGE TRANSPORTATION CHOICES

1. As a team, research three vehicles that can make the 37-mile trip to the airport, pick up visitors, and make the 37-mile return trip back to the TravelView Mountain Lodge.
2. Create a spreadsheet to make the following calculations. Organize your spreadsheet to keep track of these conditions.
   - Consider the number of passengers per vehicle. (As many as 25 people need to be taken to the airport each day at different times.) Would you need to make more trips with one vehicle versus another?
   - Record the miles per gallon for each vehicle, and calculate the cost per trip based on current fuel prices.
   - Record the cost of the vehicle.
   - Calculate the cost to operate each vehicle for one year based on the cost per trip to the airport, the number of trips that need to be made each day, and the number of days each year that the vehicles would be used.
3. Based on the information you gathered and calculated, discuss with your team which vehicle would be the best choice. Decide on a vehicle.
4. Create a chart (or charts) that reflects your team's choice.
5. Present your choices to other teams in a short PowerPoint show. Use your graphs and data in the presentation.



To copy a worksheet or chart to PowerPoint:

a. Select the Excel chart or the specific range of cells you wish to use.
b. Choose **Copy** from the **Clipboard** group.
c. To place charts and graphs, open PowerPoint, navigate to the slide where you want the information to appear, and choose **Paste**.
d. If you are copying text and numbers from cells, choose the down arrow on the **Paste** button and select **Paste Special**. Choose **Microsoft Office Excel Worksheet Object**, and pick **OK**.

6. Save both your Excel spreadsheet work and your PowerPoint show as ***Lodge Transportation Spreadsheet*** and ***Lodge Transportation PowerPoint***, respectively, in your ***Chapter 6*** solutions folder.
7. Make sure each team member has copies of the Excel spreadsheet and PowerPoint presentation you have created.

USE CHARTS TO HELP YOU MAKE DECISIONS

Imagine that you need a car for yourself! How will your personal decision be different from the ones you made for the lodge? Compare at least three vehicle model options in a spreadsheet. As in Activity 6-17, compare miles per gallon, and the initial cost of the vehicle. Also consider your needs over the next five years for the vehicle. For example, how many miles per year do you think you will be driving?

Activity 6-18 PERSONAL TRANSPORTATION CHOICES

1. Start Excel and open a new spreadsheet file.
2. Create a spreadsheet to contain the information about the vehicles you are interested in.
3. Which vehicle will you choose? After you have analyzed your vehicle data, create a chart or graph that illustrates the factors that weigh into your decision-making process.
4. Save your work as ***My New Vehicle*** in your ***Chapter 6*** solutions folder.
5. Present your choice to your teammates, and listen to them talk about the cars they selected.

USING SPREADSHEETS FOR EVERYDAY ACTIVITIES

As you can imagine, there are thousands of practical uses for spreadsheets. The following activity is just one example of how you might use a spreadsheet to keep track of information that is important to you.

Activity 6-19 CALCULATING YOUR GPA

1. Start Excel and open a new spreadsheet file; name the *Sheet 1* tab **Grades**.
2. Key the following information about classes and grades in the spreadsheet:

English	**A**	**4.0**
Math	**B+**	**3.4**
DigiTools	**A**	**4.0**
History	**B–**	**2.7**
Spanish	**C**	**2.0**
Music	**B**	**3.0**
PE	**C–**	**1.7**



The grades are converted to a four-point scale, with an A worth 4 points and a failing grade worth 0 points. Pluses are awarded an extra 0.7, and minuses deduct 0.3.

3. Calculate the grade-point average for the grades listed. (*Hint:* There are several ways to do the calculation and to get the right answer.)
4. Display the GPA in hundredths and the grades in tenths.
5. On a separate worksheet, calculate your own GPA with what you think are your current grades. Name the sheet **My Grades**.
6. Save the workbook as ***GPA*** in your ***Chapter 6*** solutions folder.

INTO THE CLOUD

Singledocumindedness

When Google engineers began thinking of ways to improve spreadsheets, they soon thought of the cloud. They asked:

- What if spreadsheets were always available online?
- What if any team member anywhere in the world could make changes and additions simultaneously?
- What if the files were safe and protected online?
- What if all changes were recorded in the single document so there was no need to store older versions of a document to see who made changes and when changes were made?

To make all of this happen, Google envisioned singledocumindedness, where only one copy of a spreadsheet exists. All changes are made on a magic spreadsheet in the cloud that records everyone's fixes and updates. No one is stuck with an older version of a shared spreadsheet.

For example, a Google training team had members around the world in India, Ireland, and the United States. The team began inputting training statistics for its worldwide training efforts on a single cloud-based spreadsheet. No matter how distant the country, every team member could key data and had access to the most updated spreadsheet.

Microsoft followed up with an online version of Excel. This is a major validation that cloud computing is an important step in the growth of software from the desktop to Net 2.0 functionality.

You will learn more about Google Spreadsheet and the online version of Excel and experiment with singledocumindedness in Chapter 14.

Discussion:

1. How can singledocumindedness help teams work more productively?
2. Are there disadvantages to the singledocuminded approach?
3. What other advantages do you see in a singledocuminded approach?



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Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 6-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools*.

Building Up: Your Math Skills

Exercise 6-2 FIGURING OUT YOUR FORMULAS

1. Open a new word processing document, and re-create the following table.
2. Key the correct formula in the space provided to the right of each formula description.

Formula Description	Formula
Formula converting Celsius into Fahrenheit	
Formula converting Fahrenheit into Celsius	
Formula converting kilometers into meters	
Formula converting feet into inches	
Formula converting yards into feet	
Formula converting miles into yards	
Formula converting gallons into quarts	
Formula converting gallons into ounces	
Formula converting quarts into pints	
Formula converting cups into ounces	
Formula converting tons into pounds	
Formula converting centimeters into millimeters	

3. Save your document as ***Exercise 6-2*** in your ***Chapter 6*** solutions folder.

Building Up: Your Language Arts Skills

Exercise 6-3 FROM THE EDITOR'S DESK: COMMA USAGE PART 1

1. Open your browser software. Use the bookmark on your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications > From the Editor's Desk**.)

2. Choose the **Punctuation** link. Under *Punctuation*, choose the **Comma Usage Part 1** link. Read the information provided, and follow the directions for completing the practice exercise.
3. Check your answers by comparing them with those on the bottom of the intranet page.
4. Save your work in your ***Chapter 6*** solutions folder as ***Exercise 6-3 Comma Usage***.

Career Clusters

Science, Technology, Engineering, & Mathematics

Science and engineering careers are exciting and demanding. They require high levels of education, training, and experience. Scientists and engineers generally specialize in an area of engineering or research such as astronomy, hydrology, or marine engineering. Review more possibilities in this career cluster in Table 6-13.

TABLE 6-13
Career Cluster: Science, Technology, Engineering, & Mathematics

Position	Yearly Salary	Position	Yearly Salary
Aerospace Engineer	$108,016	Astronomer	$87,450
Agricultural and Food Scientists	$57,877	Electrical Engineer	$78,630
Agricultural Engineer	$64,300	Medical Scientist	$72,650
Biochemist or Biophysicist	$68,950	Marine Engineer	$76,960
Biomedical Engineer	$63,330	Hydrologist	$62,495
Computer Scientist	$86,650	Nuclear Engineer	$85,200
Chemical Engineer	$79,591	Microbiologist	$68,950
Conservation Scientist	$59,625	Mining and Geological Engineer	$71,370
Civil Engineer	$66,000	Zoologist and Wildlife Biologist	$57,410

Scientific research and engineering careers require an in-depth understanding of math, technology, and complex scientific subjects. Nearly all of the careers require college degrees. Review these four major levels of college and university degrees for scientists, technologists, mathematicians, and engineers:

- *Associate or technical degrees.* These two-year degrees prepare people for careers assisting in areas of science, technology, math education, and engineering.
- *Bachelor's degrees.* These degrees, which require four years of education, include bachelor of science (B.S.) and bachelor of arts (B.A.), although some students may take more courses and finish in less time or may take longer to complete this degree due to financial or other considerations. Bachelor's candidates focus on a specialty called a major. Majors in this cluster may include engineering, biology, astronomy, engineering, mathematics, computer science, agriculture, and conservation science.

- *Master of Science (M.S.) or Master of Arts (M.A.) degrees.* This degree requires the completion of a bachelor's or undergraduate degree first. Students seeking this degree go to graduate school. M.S. and M.A. degrees usually require two years of additional study. Studies are focused on specialized areas of math, technology, science, or engineering.
- *Doctoral degrees, including Doctor of Philosophy (Ph.D.).* This degree usually requires four years of additional education. Studies focus on a very specialized area in math, technology, science, or engineering.

Exercise 6-4 RECORD DEGREE OPPORTUNITIES



1. Work in a team to complete this activity. Have each member choose a different career in the Science, Technology, Engineering, & Mathematics cluster. For example, you may pick "astronomer," another member can choose "civil engineer," and another may choose "biochemist."
2. Use a search engine such as Google (www.google.com) or Bing (www.bing.com), or visit the Occupational Outlook Handbook (www.bls.gov/ooh) to learn more about these careers and what these professionals do on the job. Assign each team member to collect specific information for their assigned career. For example:
   - Career choice
   - Average salary
   - Education required
   - Number employed
   - Growth potential: high, medium, or low
   - Additional training needed or other requirements
3. Start a team spreadsheet listing each career.
4. Help each other research colleges and universities that offer degrees for the careers you and your teammates are writing about. For each career, identify universities that offer bachelor's, master's, or more advanced degrees. Start by visiting the websites of universities and colleges in your community or state, and then expand your search to other states.
5. On your team's spreadsheet, add the names of each college or university and the degrees offered to students.
6. Save your spreadsheet as ***Career Planning***, and place a copy in your ***Chapter 6*** solutions folder.
7. Share your spreadsheet so that each team member has access to this information.

Extra Team Credit: In the previous chapters, you researched careers in other career clusters. Add these careers to your team's spreadsheet for the following clusters: Information Technology, Hospitality & Tourism, Education & Training, and Business Management & Administration. Share this updated spreadsheet with all of your team members.

21st-Century Skills

Critical Thinking and Problem Solving

Exercise 6-5 THINK THROUGH AND PLAN A MAJOR PROJECT



Few things require more critical thinking and problem solving than working with a team. Work with your team to complete this project. Read the suggestions listed below to give you ideas for a project.

- Your school needs a field where students can play soccer (or another sport).
- Your club wants to sponsor a concert, a party, or an open house.
- Your school wants to begin an after-school program to help students with homework and study skills.
- Your team wants to hold a fund-raising event to raise money for a charity or to buy computer, music, or sports equipment.

1. Meet with your teammates, and choose a project. Then plan the project. Consider the what, who, when, and where questions for the project. Brainstorm a plan that includes answers to the following questions.

- What is the purpose of the project? Define all goals clearly.
- Where and when will the event take place?
- What resources will be needed—money, people, equipment, land, etc.?
- What information do you need to research—costs of renting or buying a field, costs of renting or buying equipment, costs of paying an adult to supervise, etc.?
- What, if any, approvals will be needed from school officials? What, if any, approvals will be needed from parents so that students can participate?
- What tasks must be performed to accomplish the project?

2. After brainstorming your project, open a spreadsheet and develop a detailed timeline/schedule for the project. On the spreadsheet, record answers to the following questions.

- When must each task be done?
- Who (on the team) will handle each task?
- Who must be contacted for information or approvals? Who will be contacted to ask for support/money/volunteer time for the project?

3. Be creative in the development of your team's spreadsheet. For instance:

- Create multiple sheets to track various parts of your project, or create a separate sheet for tracking key goals.
- Add a sheet that tracks the hours each team member worked, and make it easy for everyone to assess what they are contributing by displaying the information in a pie chart.
- Make a bar graph that shows completion of the project day by day.
- Create other graphs that you may wish to use in a presentation about your project. For example, graph how many people benefited from your project.

4. Once your team has planned the project, save the spreadsheet as ***Teamwork Planning 1***, and save a copy in your ***Chapter 6*** solutions folder. Make sure a shared copy is available to each team member.

Communication and Collaboration



In Exercise 6-5, you and your team worked through and planned a major project. Now that you are ready to implement your plan, how can your team gain support from local community leaders and local businesses? In this next series of exercises, you will prepare a letter asking for support. (You do not always need to ask for money. Help can be in the form of prizes, volunteers, speakers, or chaperones that can help in completing the project.) Then your team will prepare a presentation that communicates your project ideas to the community and to local businesses.

Exercise 6-6 COMMUNICATE YOUR PROJECT TO BUSINESSES



1. As a team, compose a letter or an e-mail to send to five or six businesses in support of the project your team planned in Exercises 6-5. Describe your project, and ask for appropriate help (donations, volunteers, or a loan of equipment, for instance).
2. Submit the letters or e-mail to your instructor for review.

Exercise 6-7 COMMUNICATE YOUR PROJECT TO COMMUNITY LEADERS



1. Prepare a presentation to stimulate support for the project. Include a timeline from your spreadsheet data. Add graphs and charts created in your team's spreadsheet that illustrate your project. (See Exercise 6-5, step 3.) Include slides for the following topics:
   - What the overall purpose of the project is
   - What details the project involves
   - Who the project will benefit and how
   - What is needed (money, land, equipment, volunteers) to complete the project
   - What you want the listeners to do (give money, donate equipment, volunteer time)
   - Questions and answers
2. Practice the presentation, and deliver it to groups such as the Chamber of Commerce, your school board, or the school's Parents Association.

Chapter 7

Easy Access Database Skills

Lesson 7-1 Exploring a Database
Lesson 7-2 Creating a Contacts Database from a Template
Lesson 7-3 Sorting, Filtering, and Reporting

DATABASE KNOW-HOW



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FIGURE 7-1 Databases can give companies a competitive edge.

A database is a digital warehouse stacked with information. Businesses and government agencies large and small organize important information in databases. This keeps everything at-the-ready and easy to find. A well-constructed database can make an organization more effective and more productive.

Databases were once very expensive tools to create, use, and maintain. No longer. Now, even small businesses can harness the power of databases to make their operations more efficient.

LESSON 7-1 Exploring a Database

IN THIS LESSON YOU WILL:

Objectives

1. Learn about databases as well as how to save them.
2. Open and use existing forms and tables and add records to a database.
3. Design a database form.

Key Terms

database
fields
form
primary key
records
table

WHAT IS A DATABASE?

A **database** is a collection of related digital information. For example, a database may contain information on every product that can be sold in a store. The information about a particular product is called a **record**. Each product a store sells will have its own record in the store's database. If there are millions of products to be sold, there will be millions of records. If there are just a few products, the records will be few in number.

INSTANT MESSAGE

SKU is an abbreviation for stock keeping unit. Used by merchants, it is a tool for identifying and tracking products.

A **table** is a storage container in a database. Records are placed in tables. Think of a table as a big basket used to store records. Records are composed of bits of information categorized by **fields**. A field contains some information about each product. For example, a typical record could contain these fields:

- The name of the product
- The cost of the product
- The maker of the product
- The product's SKU number (see Instant Message)
- The date the product will be available to customers

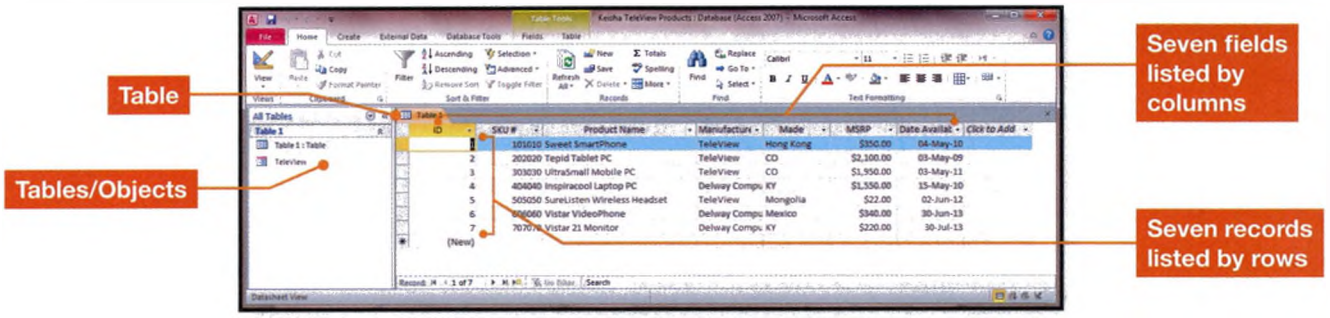


FIGURE 7-2 Records in Rows and Fields in Columns

Activity 7-1 MANIPULATE AN EXISTING DATABASE TABLE

1. Open Microsoft Access. If necessary, choose the **File** tab. (Access 2007 users should pick the **Office Button**.)
2. If necessary, select the **New** option to review the options in Backstage as seen in Figure 7-3.



FIGURE 7-3 Backstage of Microsoft Access

Watch the Video
Go to the video for this lesson.

A video illustrating how to perform the skills in this lesson is available from your instructor or online at: www.cengage.com/school/keyboarding/digitools

3. View the possible database templates available in Backstage, as seen in Figure 7-3. (*Note:* In Lesson 7-2, you will use a template from Backstage to create a database for contacts.)
4. Pick **Open** from the File/Backstage menu as marked in Figure 7-3.
5. Open the ***TeleView Products*** database from your ***Chapter 7*** data files folder. (See Figure 7-4.)

INSTANT MESSAGE

TeleView is the electronics division of Corporate View, a Colorado-based company. It is very profitable and a sister company of TravelView. Both divisions are based in Boulder, Colorado.

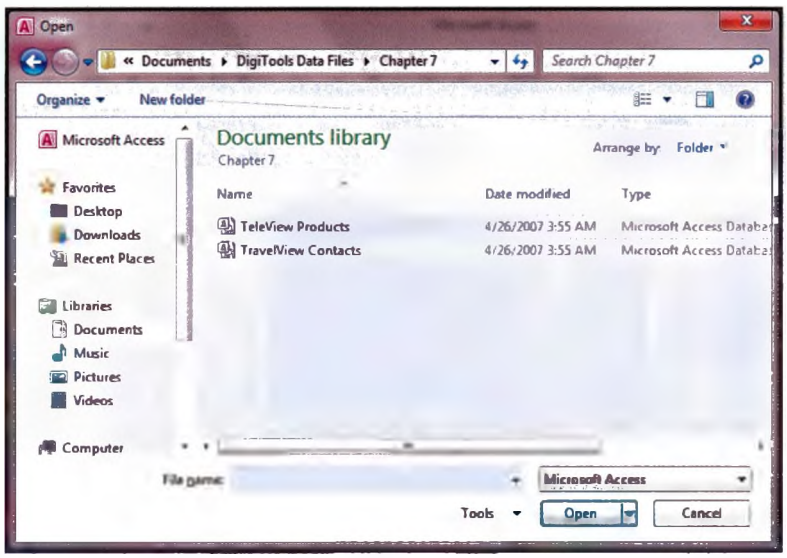


FIGURE 7-4
Existing Databases

Tables are examples of objects used to organize data and to display them in different ways. Several options will be visible in the All Tables pane. In Figure 7-5, two objects are displayed: **Table 1: Table** and **TeleView**.

INSTANT MESSAGE

Objects are tools that can be used repeatedly to organize, retrieve, and query information in databases.

6. Choose the double arrows at the top of the All Tables pane to hide and then display the All Tables pane. (See Figure 7-5.)
7. When you open a database, you may see a security warning as shown in Figure 7-5.
   a. In Access 2010, choose the **Enable Content** button.
   b. In Access 2007, choose the **Options** button. If necessary, to allow the use of this database, choose **Enable this content** followed by **OK**.

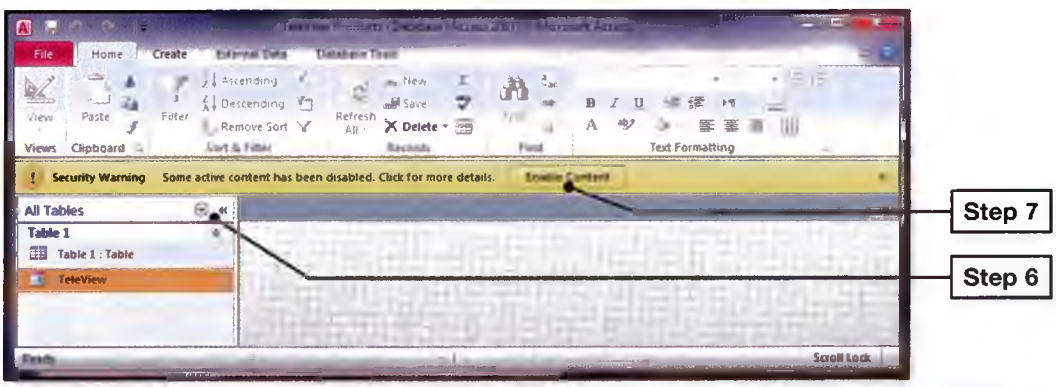


FIGURE 7-5
A Database Table

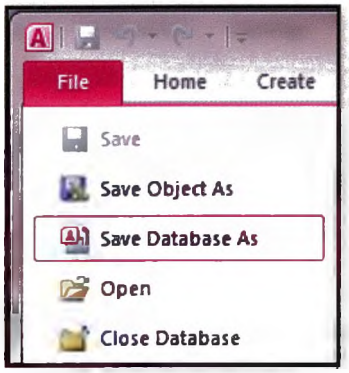


FIGURE 7-6 File Tab Options

DigiTip

Access saves every time you key information. It is also a shared application; so to use it effectively, you need your own copy. Save it now in the next few steps.

8. In Access 2010, choose **File > Save Database As** as seen in Figure 7-6. (In Access 2010, choose **Office > Save As >Access 2007 Database**.)
9. Save your copy of the file using the name ***[Your Name] TeleView Products*** (such as ***Keisha TeleView Products***), and place your copy in your ***Chapter 7*** solutions folder.
10. Double-click the object called **Table 1: Table** as marked in Figure 7-7 to display the database in its Table format.
11. Add the following information to a new record in the database. Key this as the sixth record. (The ID number will be added automatically by the database in the ID field. Just click in the SKU field, and each subsequent field, to begin keying data as seen in Figure 7-7.)

SKU #:	**606060**
Product Name:	**Vistar VideoPhone**
Manufacturer:	**Delway Computers**
Made:	**Mexico**
MSRP:	**$340.00**
Date Available:	**June 30, 2013**

INSTANT MESSAGE

MSRP is an abbreviation for manufacturer's suggested retail price.

DigiTip

When keying the date, click the little Calendar icon to open the calendar. Scroll through the calendar until you find the day you are looking for. Double-click or tap on *June 30, 2013*.

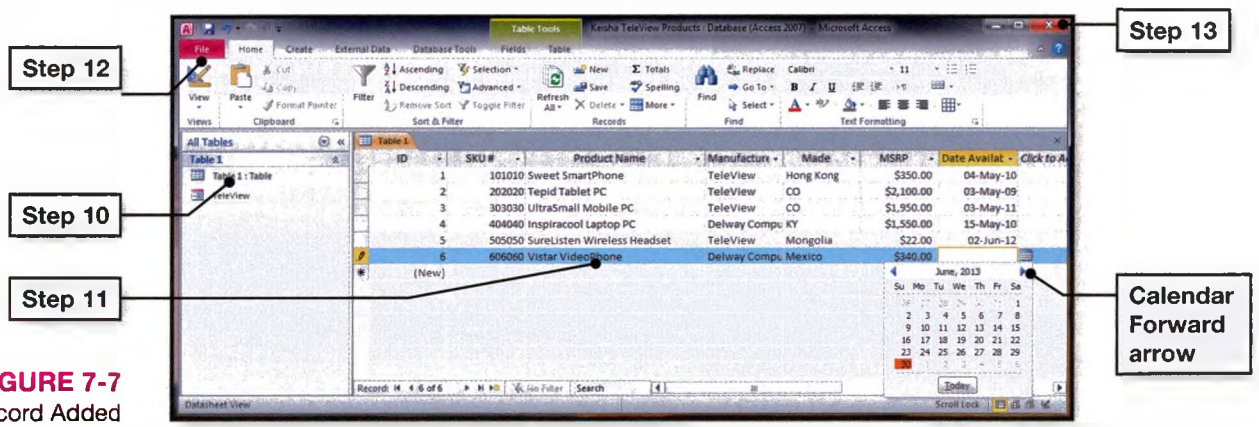


FIGURE 7-7 New Record Added

DigiTip

Reminder: Your changes have already been saved in your ***Chapter 7*** solutions folder if you completed steps 8 and 9. If not, return to those steps and rename and save your database now.

INSTANT MESSAGE

Notice that the data you key is automatically formatted for the field it is in.

12. Close your database by picking **File** > **Close Database** in Office 2010 as marked in Figure 7-7. (In Access 2007, choose **Office Button** > **Close**.)
13. Close Access by clicking the **Close** button or selecting **Exit** from the File tab.

FRIENDLY FORMS

Database tables can be confusing because they look a lot like spreadsheets, but database tables work differently than spreadsheet workbooks do. To make databases more user-friendly, they often display records in **forms**. (See Figure 7-9.) Forms can make it easier for users to key and find the data they need. Experiment with forms in the next few activities.

Activity 7-2 USE A DATABASE FORM

1. Open Microsoft Access and your copy of the ***[Your Name] TeleView Products***. There are several ways to do this:
   Access 2010: Click **File** > **Recent**. Pick your database from the list. (See Figure 7-8.)
   Access 2010 and 2007: Choose **Open** and browse to the file in your ***Chapter 7*** solutions folder.

DigiTip

Recently opened files are also shown on the File pane.

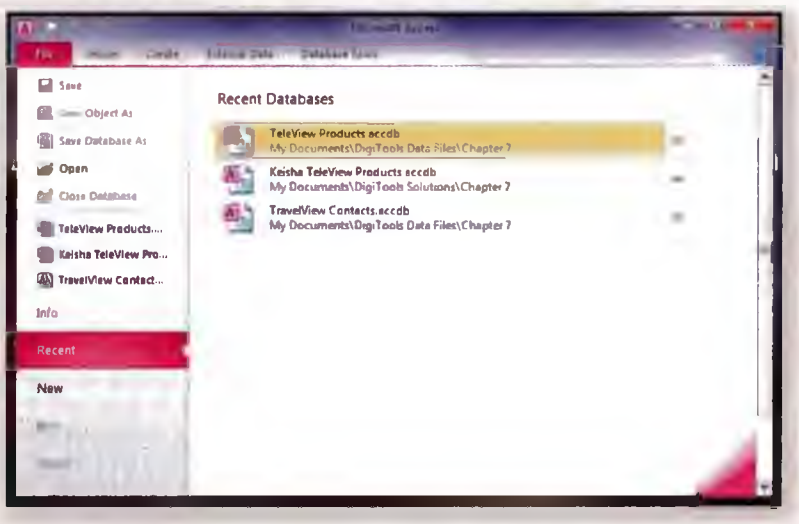


FIGURE 7-8
Recently Opened Databases

2. Change views by double-clicking on the **TeleView** object icon marked in Figure 7-10. (*Note:* This will show an individual record in a form.)

3. To make sure your database form has been updated and your sixth record will be displayed in a Forms view, choose the **Refresh All** option on the Home tab's *Records* group. (See Figure 7-9.)

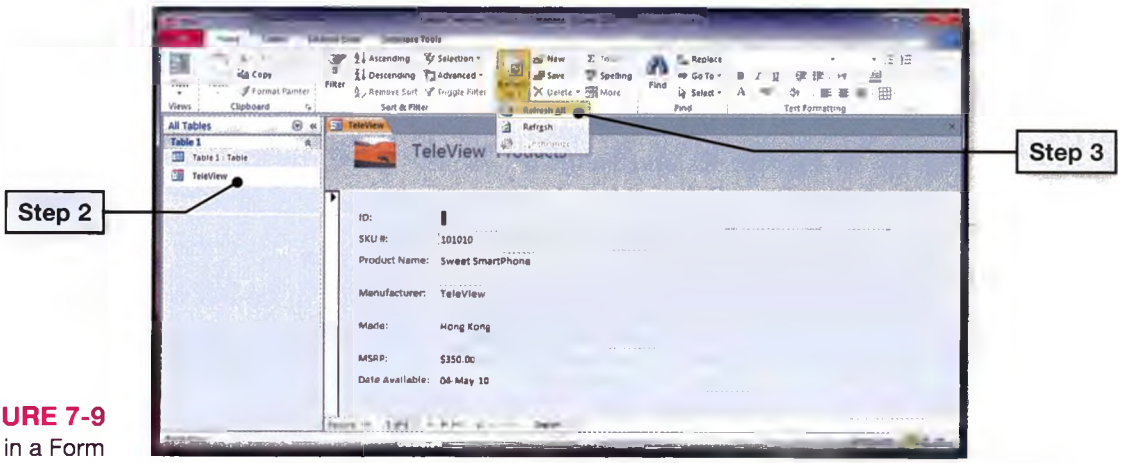


FIGURE 7-9
A Record in a Form

DigiTip

In every database, one field is assigned to be the **primary key**. The primary key is a unique identifier that makes sure records are never confused. Primary keys are often described as being like license plates on cars. No two cars have the same license plate number, so they can be identified easily. In this database, Access automatically assigned the primary key, which in this case is the ID field, the number of the record.

4. Scroll forward several records at a time using the navigation buttons at the bottom of the screen as marked in Figure 7-10. Click or tap on the **Next record** button to scroll through all six records one at a time.

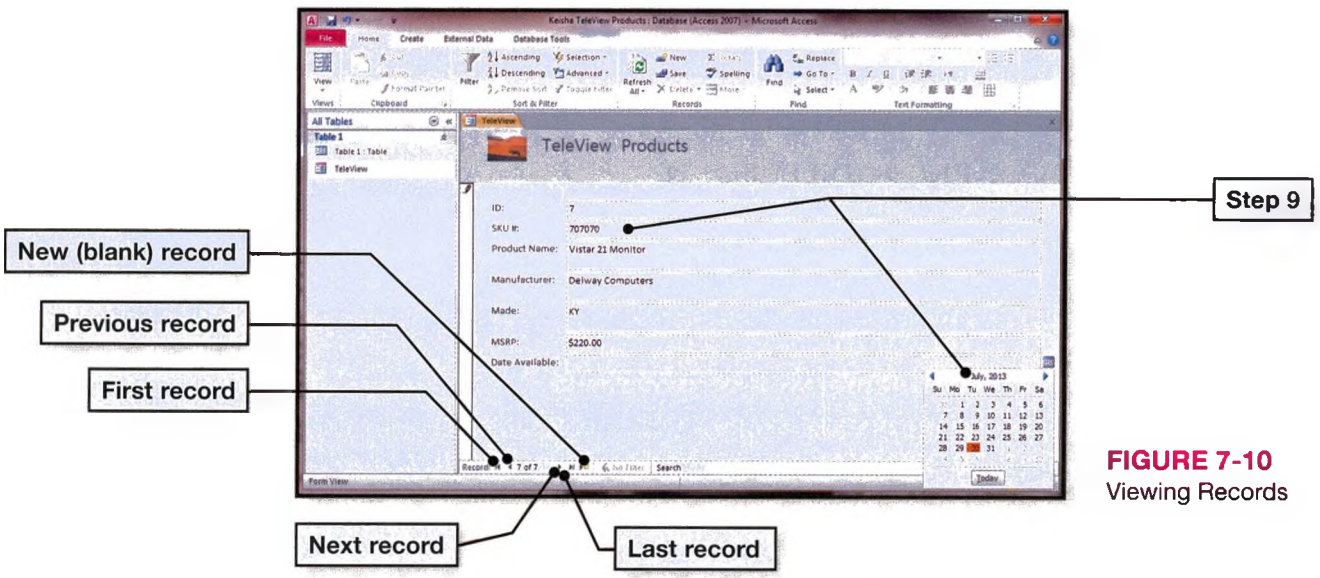


FIGURE 7-10
Viewing Records

5. Go back one record at a time to the first record by tapping the **Previous record** button marked in Figure 7-10.
6. Go to the last record by tapping the **Last record** button marked in Figure 7-10.
7. Go to the first record by tapping the **First record** button indicated in Figure 7-10.
8. Add a new record by clicking or tapping on the **New (blank) record** button as seen in Figure 7-10.
9. Add the following record to the form to make a seventh record. Click in the SKU field, and begin keying your data. (*Note:* The ID number will be added automatically at the end of the entry process.)

SKU #:	**707070**
Product Name:	**Vistar 21 Monitor**
Manufacturer:	**Delway Computers**
Made:	**KY**
MSRP:	**$220.00**
Date Available:	**July 30, 2009**

10. Save the changes to the ***[Your Name] TeleView Products*** database by choosing **File** and selecting **Save**. Your copy of the file will be updated in your ***Chapter 7*** solutions folder. Leave the file open for the next activity.

INSTANT MESSAGE

Each state has a two-letter abbreviation, like KY for Kentucky and CO for Colorado. Look it up if you are not sure of a state's code.

FORMS DESIGN

If you do not like the basic form seen in Figure 7-10, no worries. You can change it quickly using the design tools in Access. These tools are easily used to change databases so they communicate a professional, corporate look and feel.

Activity 7-3 USE THE FORM DESIGN OPTIONS



FIGURE 7-11 View Options

1. If necessary, open Microsoft Access and your copy of the ***[Your Name] TeleView Products*** from your ***Chapter 7*** solutions folder. Open the **TeleView** form.
2. Choose the down arrow under the **View** button in the *Views* group. When the list appears, choose **Design View** as seen in Figure 7-11.
3. Click twice on the text in the Form Header section, and change the name of the form to **TeleView's New Products** as seen in Figure 7-12.

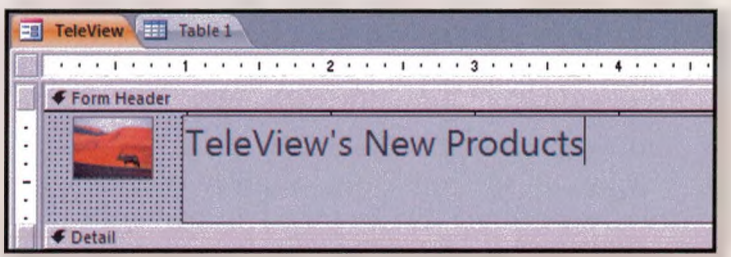


FIGURE 7-12 The Form's Title

4. Select the existing logo by clicking it. An orange box appears around the logo as shown in Figure 7-13.

5. Choose **Logo** from the Design tab's *Controls* group as illustrated in Figure 7-13.

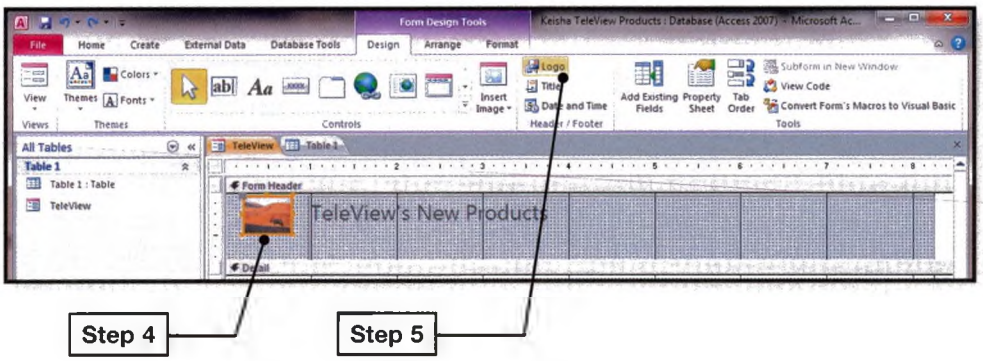


FIGURE 7-13
Logo in Header

6. Browse to your ***Chapter 7*** data files, choose the ***TeleViewLogo*** graphic, and click **Open**, as seen in Figure 7-14.

INSTANT MESSAGE

Data is saved automatically, but not design changes to the database. You need to save after adding images or altering the look and feel of a database. Note that if you do not save, Access will prompt you to save your changes. This protects you from losing changes accidentally.

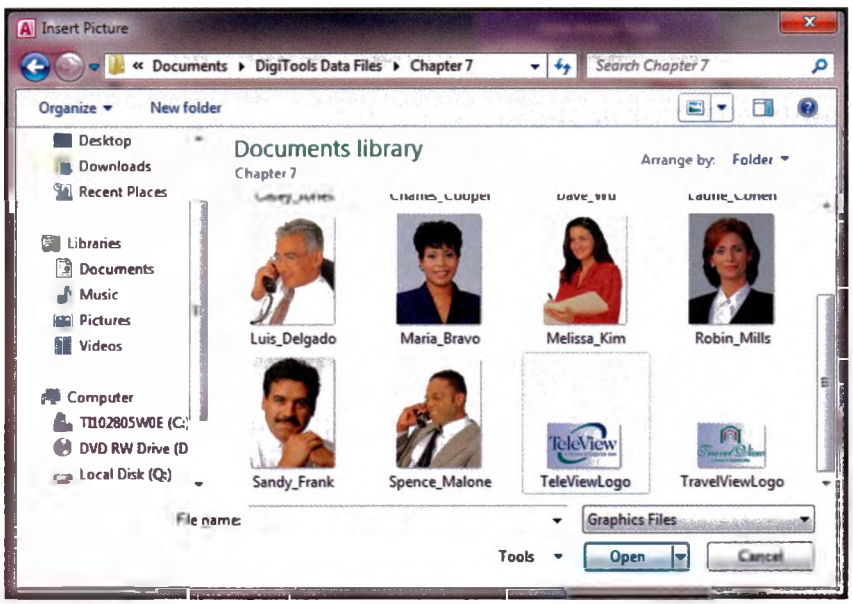


FIGURE 7-14
Logo Graphic Options

7. Close the Design view by choosing the **View** button's down arrow from the *Views* group and selecting **Form View**.

8. You will need to save your design changes. (See Instant Message.) Choose the **Save** icon from the Quick Access Toolbar.

9. Close the database and close Access.

DIGITAL SNAPSHOT

Oracle Sets the Database Standard for Business

The dominant database is called Oracle. Sold by a company of the same name, Oracle was founded over 30 years ago by Larry Ellison, a flamboyant entrepreneur who is as comfortable racing his yacht in the America's Cup as he is managing his Fortune 500 company of more than 73,000 employees all over the world. He did not start Oracle alone, however. According to the Oracle website:

> "Ellison and his co-founders, Bob Miner and Ed Oates, realized there was tremendous business potential in the relational database model—but they may not have realized that they would change the face of business computing forever."*

And they totally changed the way businesses do business. Their software is being used by 100 of the Fortune Global 100 companies. Not bad. Oracle, headquartered in Redwood City, California, deep in Silicon Valley, is the second-largest independent software company in the world. Yet, despite Oracle's dominance, most people have never heard of it. This is because the company does its best work behind the scenes with the following key products for businesses:

- Oracle business database software
- Enterprise Resource Planning (ERP) software
- Customer Relationship Management (CRM) software
- Supply Chain Management (SCM) software



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DIGITAL SNAPSHOT 7.1
Larry Ellison, Co-Founder of Oracle

Microsoft created its own database software, called Access, to compete against Oracle and has been somewhat successful. At least Microsoft brought the price down for small businesses. Databases were once very expensive tools to create, use, and maintain. This is no longer the case. Now, even small businesses can harness the power of databases to make their operations more efficient.

*Oracle's History: Innovation, Leadership, Results, http://www.oracle.com/corporate/story.html?origref=http://www.oracle.com/us/corporate/index.html

LESSON 7-2 Creating a Contacts Database from a Template

IN THIS LESSON YOU WILL:

Objectives

1. Set up a contacts database with a predesigned template, creating new records and filling database fields.
2. Redesign a form.
3. Add graphics, add data fields, update records, and update the Form view.

Key Terms

database designers
template

WHAT IS A TEMPLATE?

Databases can become extremely complicated, involving millions of records cross-referenced by thousands of fields. Examples might be records of the Social Security Administration, your bank's account system, and the "No-Fly" list kept by Homeland Security. Can you think of any large databases you may be a part of? How could one small error or sloppy input in a large database create problems?

Database designers are called upon to create these massive databases so that they work properly without the slightest hiccup. A **template** is a predesigned database that you can use and modify to fit your needs. Microsoft has many database designers who provide design templates for the most common databases businesses and people use.

In the next activity, you will use a template to create a TravelView Contacts database of managers for the TravelView Mountain Lodge. There is a copy of this template in your ***DigiTools Data/Chapter 7*** folder that you can use for this lesson; however, read these instructions so you will know how to download a new template of your own.

To download a database template:

A. Open Access. In Access 2010, choose the **File** tab and pick **New**. (In Access 2007, choose the **Office** button and pick **New**.)

B. Pick **Sample templates** for local (on your computer) templates, or pick from the Microsoft Office Online (Office.com Templates) option.

C. Choose a template, like Contacts Web Database, from the list.

D. Name the database in the *File Name* box on the right as ***<Your Name> TravelView Contacts***, and browse to the appropriate folder (i.e., your ***DigiTools Solutions*** folder for this chapter).

E. Choose **Create**, as shown in Figure 7-15, or choose **Download** if you are selecting a template from Microsoft Office online.

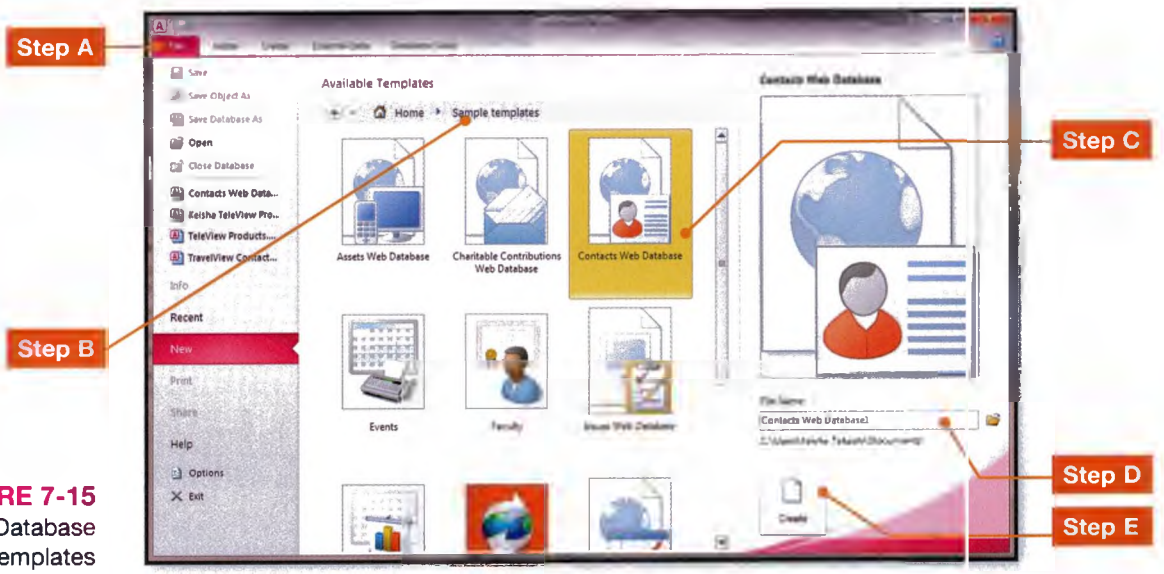


FIGURE 7-15
Predesigned Database Templates

We have already created a template for you to use in the following activities. If you feel brave, pick your own template. If you want to take it slower, use the template called TravelView Contacts that can be found in the data files for this chapter as explained in the next activity.

Activity 7-4 OPEN A DATABASE TEMPLATE

1. Open Microsoft Access.
2. Choose **File** > **Open** in Access 2010. (In Access 2007, pick **Office** > **Open**.)
3. Browse to the ***TravelView Contacts*** database in your ***Chapter 7*** data files folder.
4. Choose **File** > **Save Database As** in Access 2010. (In Access 2007, pick **Office** > **Save As**.)
5. Open your ***Chapter 7*** solutions folder. In the File name box, rename your database as ***[Your Name] TravelView Contacts***. Click **Save**.
6. If necessary, choose the double-sided arrow to display the Contacts Navigation pane. (See Figure 7-16.)
7. If necessary, double-click the **Contact List** object. Key the first record (in the ID: *(New)* row) as seen in Table 7-1. (Note: *(New)* will turn to *1* when you start to key in the first field). Tap **Enter** when you have finished all of the entries.

INSTANT MESSAGE

If any objects are open, an information window will open asking if you want to close the window so you can save the database.

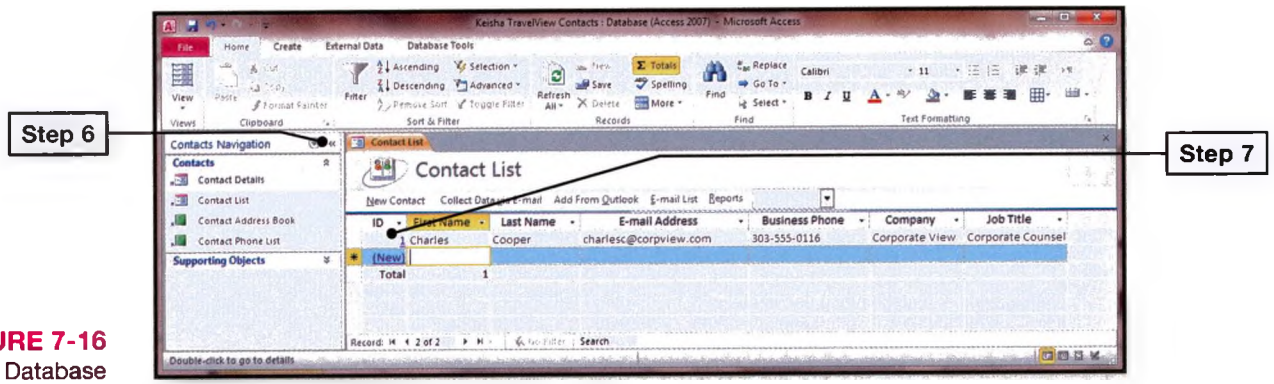


FIGURE 7-16
Data in a Database

First Name:	**Charles**
Last Name:	**Cooper**
E-Mail Address:	**charles@corpview.com**
Business Phone:	**303-555-0116**
Company:	**Corporate View**
Job Title:	**Corporate Counsel**

TABLE 7-1 Data for Charles Cooper

INSTANT MESSAGE

When you open a database, you may see a security warning. Enable the options as explained in Activity 7-1, step 7.

8. Use the information provided in Table 7-2 to key the next six records (ID *2* to ID *7*) in the table as seen in Figure 7-17.

First Name:	**Maria**
Last Name:	**Bravo**
E-Mail Address:	**mbravo@corpview.com**
Business Phone:	**303-555-0117**
Company:	**TravelView**
Job Title:	**Sales Associate**
First Name:	**Luis**
Last Name:	**Delgado**
E-Mail Address:	**ldelgado@corpview.com**
Business Phone:	**303-555-0118**
Company:	**Corporate View**
Job Title:	**IT Manager**
First Name:	**Sandy**
Last Name:	**Frank**
E-Mail Address:	**sfrank@corpview.com**
Business Phone:	**303-555-0119**
Company:	**TravelView**
Job Title:	**Facilities Manager**
First Name:	**Casey**
Last Name:	**Jones**
E-Mail Address:	**cjones@corpview.com**
Business Phone:	**303-555-0120**
Company:	**TravelView**
Job Title:	**Marketing Manager**
First Name:	**Laurie**
Last Name:	**O'Malley-Cohen**
E-Mail Address:	**lomalleycohen@corpview.com**
Business Phone:	**303-555-0121**
Company:	**TravelView**
Job Title:	**Event Planner**
First Name:	**David**
Last Name:	**Wu**
E-Mail Address:	**dwu@corpview.com**
Business Phone:	**303-555-0122**
Company:	**TravelView**
Job Title:	**Sales Associate**

TABLE 7-2
TravelView Contact List Data

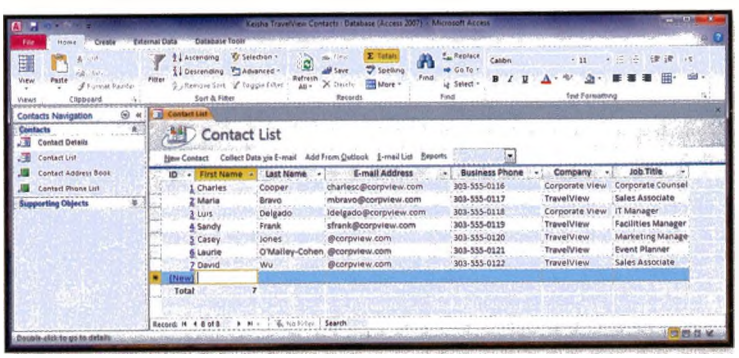


FIGURE 7-17
Data Keyed into Template

9. Tap **Enter** after your last entry, and then leave the database open for the next activity.

Activity 7-5 REDESIGN YOUR DATABASE FORM

1. If necessary, open Microsoft Access and ***[Your Name] TravelView Contacts*** from your ***Chapter 7*** solutions folder.
2. Choose the down arrow under the **View** button in the *Views* group. When the list appears, choose **Design View**.
3. Change the name of the form to **TravelView Contacts**.
4. Highlight the existing logo by clicking on it. Choose the **Logo** button from the Design tab's *Header/Footer* group.
5. Browse to your ***Chapter 7*** data files folder, choose the ***TravelViewLogo*** graphic, and pick **OK**. Your redesigned form should look similar to Figure 7-18.

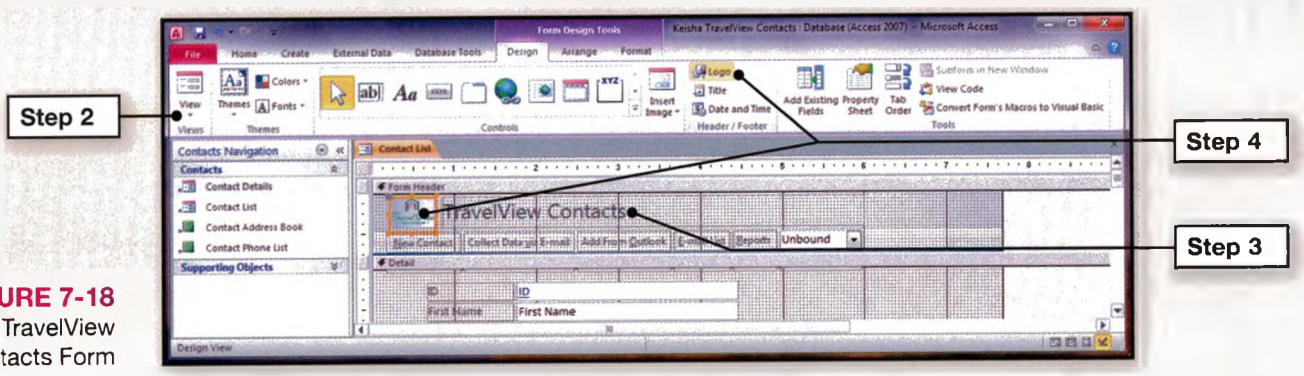


FIGURE 7-18
Redesigned TravelView Contacts Form

6. Close the Design view by choosing the **View** button's down arrow from the *Views* group and selecting **Form View**.
7. Remember, changes to the design need to be saved. Save your updates by clicking the **Save** button on the Quick Access Toolbar. Your copy of the ***[Your Name] TravelView Contacts*** file will be updated in your ***Chapter 7*** solutions folder. Leave your database open for the next activity.

GRAPHICS IN FORMS

Databases filled with data in thousands of records can seem impersonal. No need for that. A contacts database can, for example, be made more accessible to its users when pictures of the contacts are added. Also, you may have noticed that some information is missing from the contacts database. No address information has been keyed. So how do you add information after a record has been created? Time to find out.

1. If necessary, open Microsoft Access and ***[Your Name] TravelView Contacts*** from your ***Chapter 7*** solutions folder.
2. Double-click the **Contact Address Book** object as indicated in Figure 7-19.
3. Click on **Maria Bravo** as marked in Figure 7-19. The Contact Details window will open. This is a data entry form that lets you view one record at a time.

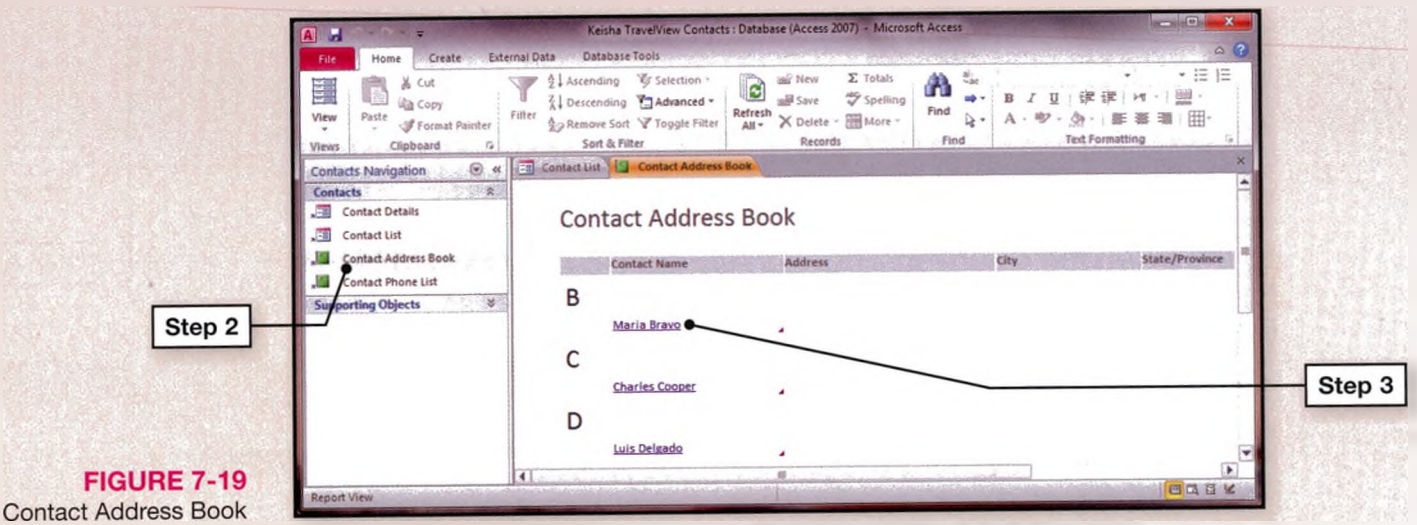


FIGURE 7-19
Contact Address Book

4. Key the additional address, Web page, and other information for Maria Bravo, along with the note seen in Table 7-3. Your updated record will look like Figure 7-20.

Address	**100 TeleView Drive**
City	**Boulder**
State/Province	**CO**
ZIP/Postal Code	**80303**
Country/Region	**USA**
Web Page	**www.corpview.com**
Notes	**Has a corporate communications background. Is responsible for event sales including weddings, community, and school events. Also takes the lead in public relations campaigns.**

TABLE 7-3 Additional Data for Maria's Record

5. Choose the **Picture** icon marked in Figure 7-20. This will cause the Attachment toolbar to appear.
6. Choose the little **Paper Clip** (called the **Manage Attachments** button) as marked in Figure 7-20.

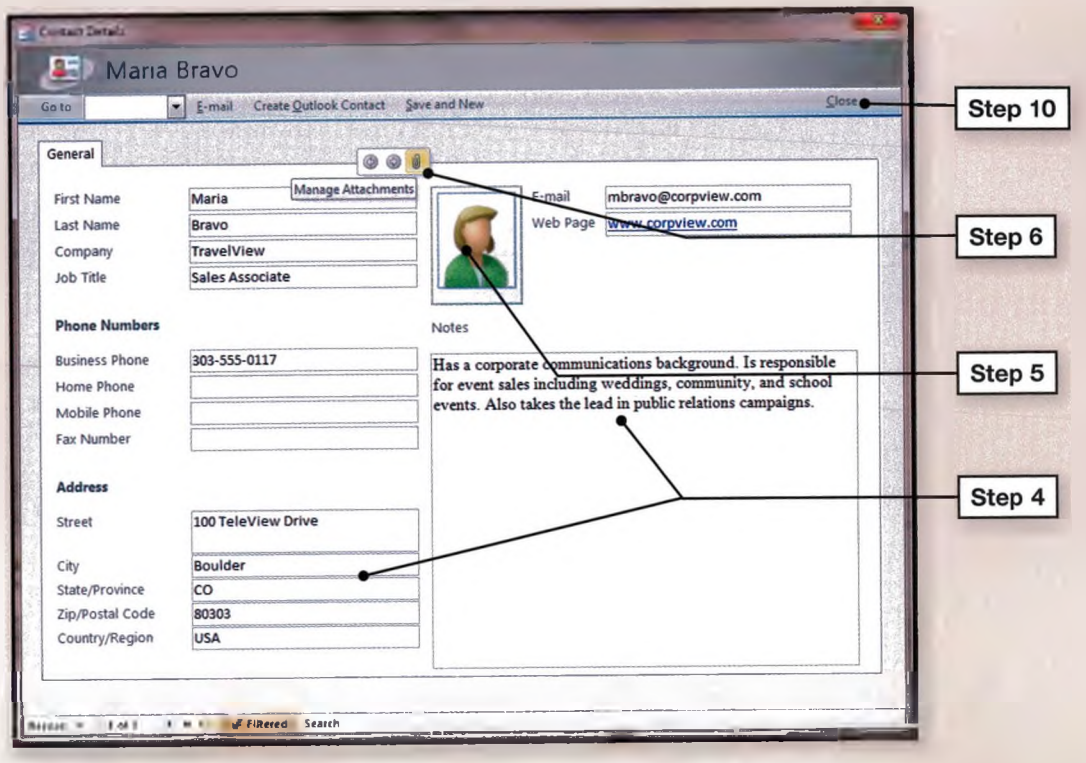


FIGURE 7-20
Maria Bravo's Record

7. When the Attachments dialog box appears, choose **Add** as seen in Figure 7-21.

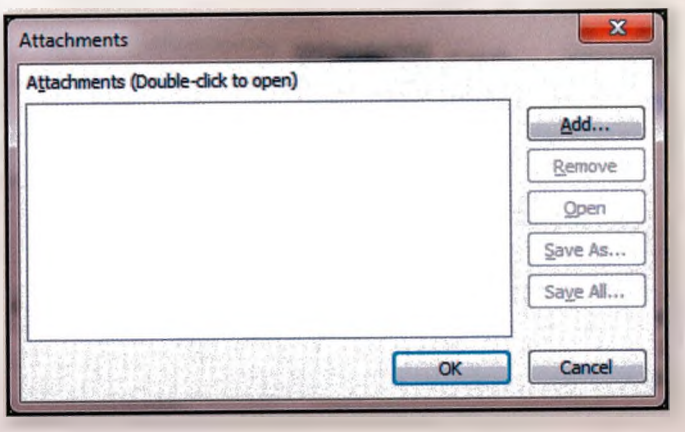


FIGURE 7-21
Attachments Dialog Box

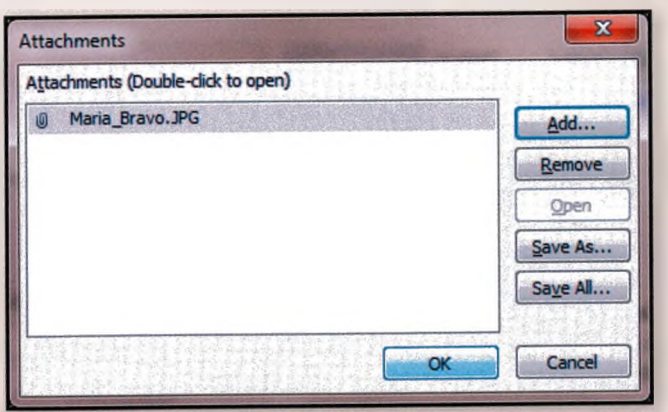


FIGURE 7-22 Maria's Picture File

8. Browse to your data files for this chapter, and look for the graphic entitled **Maria_Bravo**. Select the graphic and choose **Open**.

9. The filename ***Maria_Bravo.JPG*** will appear in the Attachments dialog box, as seen in Figure 7-22. Choose **OK** after you verify the name of the file. (*Note:* If you make a mistake and include the wrong file, select the Remove button and try again.)

10. The picture of Maria Bravo should now appear in the form displaying her record. Choose the **Close** button marked in Figure 7-20 to close her record. Leave the database open for the next activity.

Activity 7-7 UPDATE MORE RECORDS AND UPDATE THE FORM VIEW

1. If necessary, open Microsoft Access and *[Your Name] TravelView Contacts* file from your *Chapter 7* solutions folder.
2. If necessary, double-click the **Contact Address Book** object.
3. Key the additional information into records for the employees in Table 7-4 following the steps you learned in Activity 7-6.

TABLE 7-4 Data to Update Employee Records

	Charles Cooper
Data files graphic name	***Charles_Cooper.jpg***
Address	**One Corporate View Drive**
City	**Boulder**
State/Province	**CO**
ZIP/Postal Code	**80303**
Country/Region	**USA**
Web Page	**www.corpview.com**
Notes	**Has been assigned from Corporate View Headquarters to assist the TravelView Mountain Lodge with all of its legal needs.**
	Luis Delgado
Data files graphic name	***Luis_Delgado.jpg***
Address	**One Corporate View Drive**
City	**Boulder**
State/Province	**CO**
ZIP/Postal Code	**80303**
Country/Region	**USA**
Web Page	**www.corpview.com**
Notes	**Has been assigned from Corporate View Headquarters to assist the TravelView Mountain Lodge with all of its information technology, computer maintenance, networking, and telecommunications needs.**
	Sandy Frank
Data files graphic name	***Sandy_Frank.jpg***
Address	**100 TeleView Drive**
City	**Boulder**
State/Province	**CO**
ZIP/Postal Code	**80303**
Country/Region	**USA**
Web Page	**www.corpview.com**
Notes	**A former production manager in the TeleView division, Sandy brings his organizational skills to the management, remodeling, and maintenance of the TravelView Mountain Lodge.**







TABLE 7-4 continued

	Casey Jones
Data files graphic name	***Casey_Jones.jpg***
Address	**100 TeleView Drive**
City	**Boulder**
State/Province	**CO**
ZIP/Postal Code	**80303**
Country/Region	**USA**
Web Page	**www.corpview.com**
Notes	**Casey is on temporary assignment from corporate headquarters to launch a marketing campaign for the newly remodeled TravelView Mountain Lodge.**
	Laurie O'Malley-Cohen
Data files graphic name	***Laurie_Cohen.jpg***
Address	**100 TeleView Drive**
City	**Boulder**
State/Province	**CO**
ZIP/Postal Code	**80303**
Country/Region	**USA**
Web Page	**www.corpview.com**
Notes	**Laurie served four years as a customer support coordinator and is looking for a career change. As an event planner, she has the responsibility for all the hospitality needs of the lodge.**
	David Wu
Data files graphic name	***Dave_Wu.jpg***
Address	**100 TeleView Drive**
City	**Boulder**
State/Province	**CO**
ZIP/Postal Code	**80303**
Country/Region	**USA**
Web Page	**www.corpview.com**
Notes	**Manages corporate meetings, trainings, and business event sales.**







4. All of your changes are automatically saved, so there is no need to save the database. If possible, leave the database open for the next activity.

LESSON 7-3 Sorting, Filtering, and Reporting

IN THIS LESSON YOU WILL:

Objectives

1. Sort a database.
2. Filter a database.
3. Create a report using the Report Wizard.
4. Create a query using a Query Wizard.

Key Terms

ascending
descending
query
sorting
Wizard

SORTING FROM A TO Z

Databases will let you sift through mountains of information until you find what you are looking for. **Sorting** is one of the easiest ways to organize large amounts of data. Data can be sorted alphabetically or numerically by any of the fields. For example, you can sort a database alphabetically by last name in either **ascending** or **descending** order.

- Sort from A to Z = ascending order
- Sort from Z to A = descending order

Sorting by number works the same way. If you sort from the largest to the smallest number, you are sorting in descending order. If you sort from number 1 to the largest number, you are sorting in ascending order.

- Sort from 1 to 9 = ascending order
- Sort from 9 to 1 = descending order

Activity 7-8 SORT

1. If necessary, open Microsoft Access and ***[Your Name] TravelView Contacts*** from your ***Chapter 7*** solutions folder.
2. If necessary, double-click the **Contact List** object.
3. Choose the **First Name** column. (Select the column by clicking or tapping on the header for the column. The cursor will change to an arrow pointing down when you are in position to select the entire column.)
4. Sort from A to Z (ascending order) as marked in Figure 7-23 by either:
   a. Clicking or tapping on the **Ascending** sort button found in the *Sort & Filter* group on the Home tab.
   b. Choosing **Sort A to Z** from the down arrow on the First Name field.

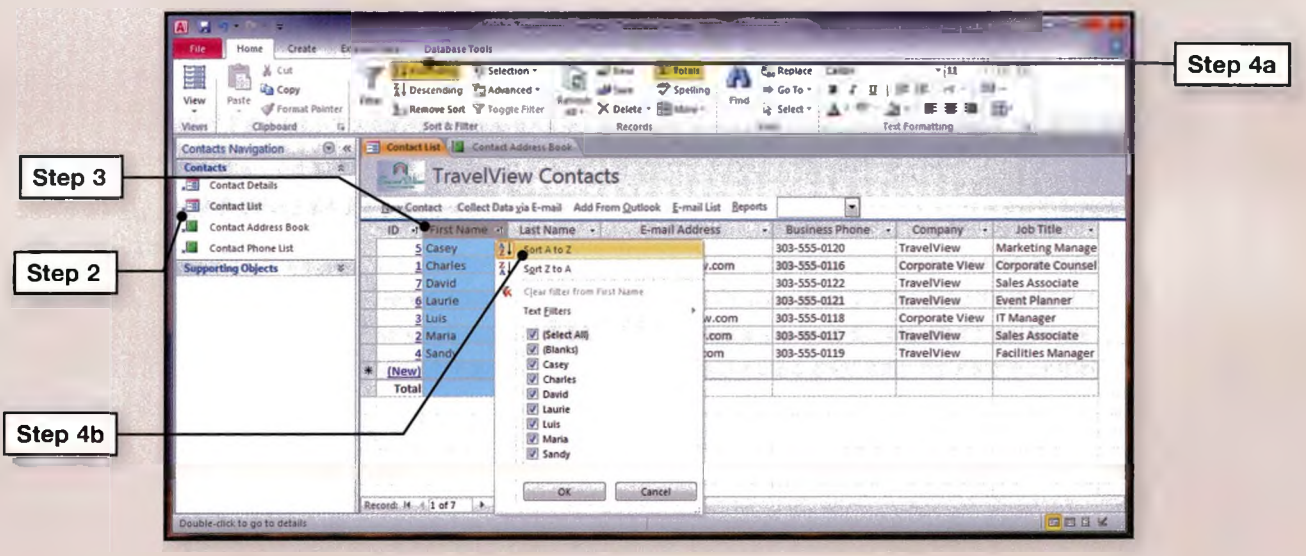


FIGURE 7-23 Sort A to Z

5. Choose the **Last Name** column. Sort from Z to A (descending order) as marked in Figure 7-24 by either:
   a. Clicking on the **Descending** sort button found in the *Sort & Filter* group on the Home tab.
   b. Choosing **Sort Z to A** from the down arrow on the *Last Name* field.

INSTANT MESSAGE

Notice that a small arrow indicating the type of sort appears next to the heading of each column in which a sort has been performed. Notice also that the appropriate sort button in the Ribbon is highlighted.

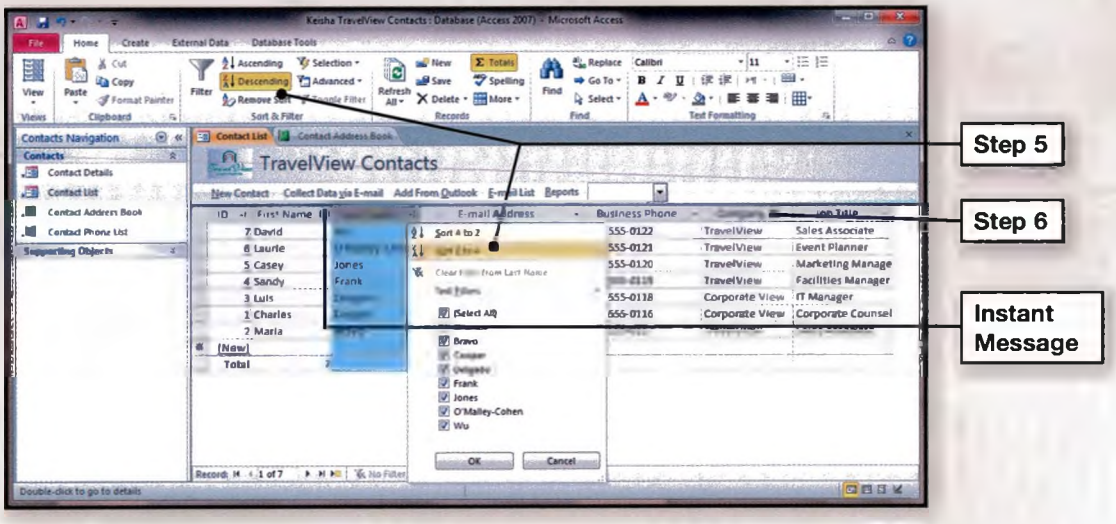


FIGURE 7-24
Sort Z to A

6. Choose the **Company** column. Sort the Company column from Z to A by either:
   a. Clicking or tapping on the **Descending** sort button found in the *Sort & Filter* group on the Home tab.
   b. Choosing **Sort Z to A** from the down arrow on the *Company* field.
7. Deselect the *Company* column by clicking or tapping somewhere else. Leave the database open for the next activity.

BLOCK OUT DATA BY FILTERING

The filtering option filters out, or "blocks," data from being displayed. The data is still in the database, but it is hidden in order for you to view just the info you consider important. You will see how filtering works in the next activity.

DigiTip

Filters and sorts are simply different ways of viewing the records. They do not delete any records. Any filter or sort can be undone, removed, or changed.

Activity 7-9 TRY THE FILTER FEATURE

1. If necessary, open Microsoft Access and ***[Your Name] TravelView Contacts*** from your ***Chapter 7*** solutions folder.
2. If necessary, double-click the **Contact List** object.
3. Select the **Company** column.

4. Filter the *Company* column as marked in Figure 7-25 by either:
   a. Clicking the **Filter** button found in the *Sort & Filter* group on the Home tab.
   b. Choosing the down arrow on the *Company* column.

5. Whichever option you choose, the drop-down menu appears as shown in Figure 7-25. Remove all the check marks in the filtered list except for the one next to **TravelView**, as seen in Figure 7-25. Click **OK**. The contacts whose company is Corporate View will not be visible.

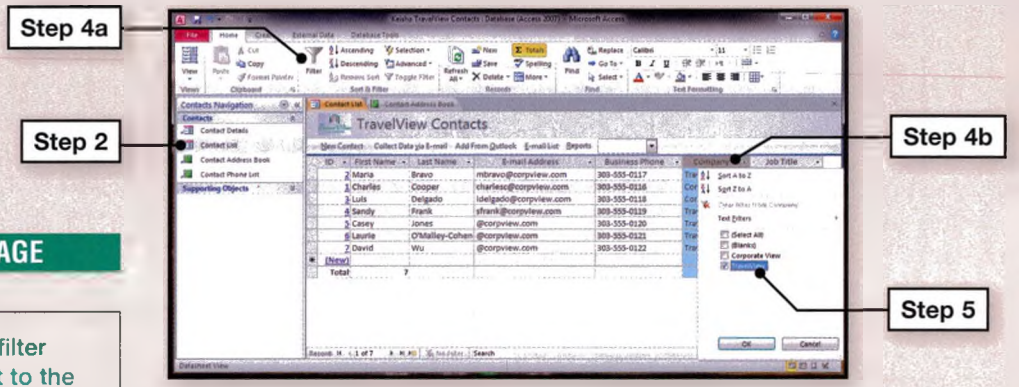


FIGURE 7-25 Filter Records

INSTANT MESSAGE

Notice that a small filter funnel appears next to the heading of the column in which a filtering operation is being performed. Notice also that the Toggle Filter button in the Ribbon is highlighted.

6. Unfilter the Company column as marked in Figure 7-26 by either:
   a. Clicking or tapping on the **Filter** button found in the *Sort & Filter* group on the Home tab.
   b. Choosing the down arrow on the Company column.

7. Replace all the check marks in the filtered list by choosing **Select All**, as marked in Figure 7-26, and then selecting **OK**.

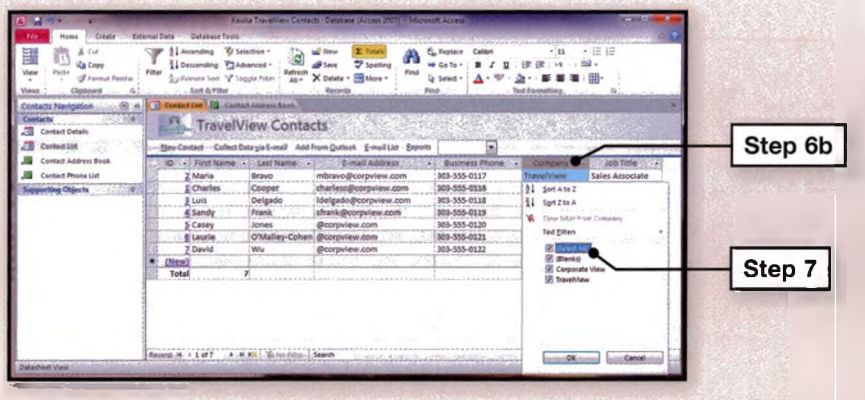


FIGURE 7-26
Restore Records

8. Deselect the *Company* column by clicking or tapping somewhere else. Leave the database open for the next activity.

RELIABLE REPORT

A **Wizard** is a tool that Access provides to make certain complex activities as easy as following a few simple steps. The Report Wizard asks questions about which fields of the database you want displayed. Then an attractive, printable report is created. These reports are a great way to share information from the database that is easy for the average person to understand.

Activity 7-10 USE THE REPORT WIZARD

1. If necessary, open Microsoft Access and ***[Your Name] TravelView Contacts*** from your ***Chapter 7*** solutions folder.
2. If necessary, double-click the **Contact List** object.
3. Choose the **Create** tab.
4. Choose **Report Wizard** from the *Reports* group as seen in Figure 7-27.

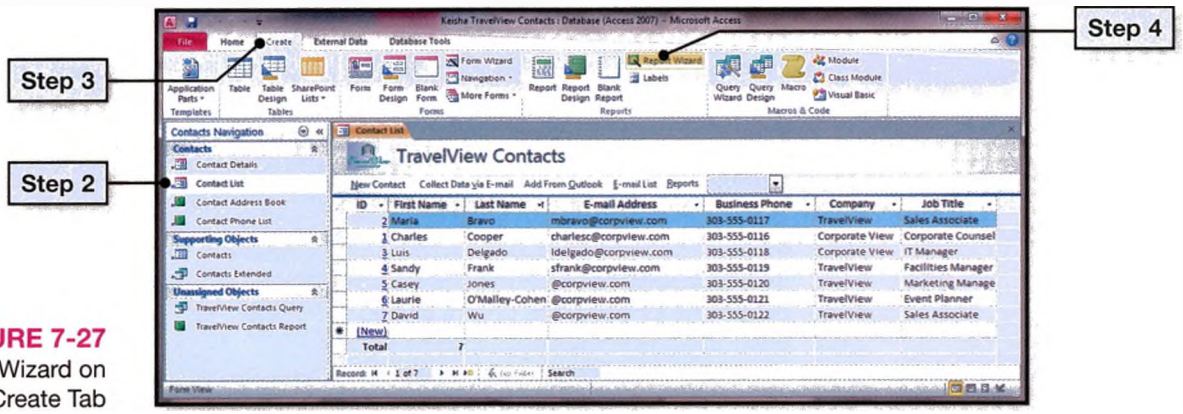


FIGURE 7-27
Report Wizard on the Create Tab

5. In the Report Wizard window, shown in Figure 7-28, choose just the fields you want to show in your report. Move fields from the Available Fields column to the *Selected Fields* column by choosing each field and clicking the **Move** arrow, illustrated in Figure 7-28, or by double-clicking on the field name in the *Available Fields* column. Move the following fields in this order:
   Last Name
   First Name
   Job Title
   Business Phone
   E-mail Address

If you make a mistake, choose the field and move it back using the Move arrow seen in Figure 7-28. If everything is correct, proceed to step 6.

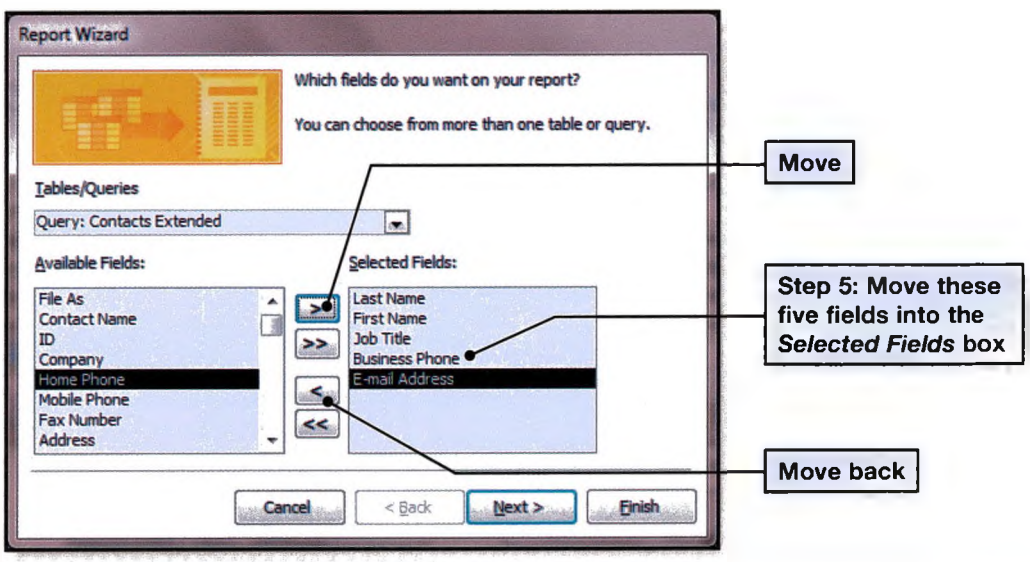


FIGURE 7-28
Field Selection

6. Tap **Next** twice until you see the screen shown in Figure 7-29. In this window, select the *Last Name* field in the first box and make sure that **Ascending** has been chosen. This ensures that your report will be viewed in alphabetical order by last name.

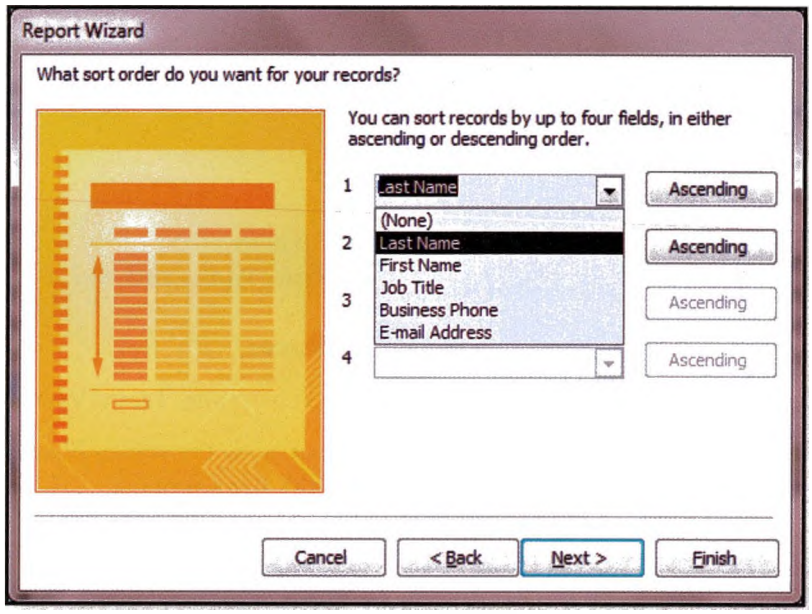


FIGURE 7-29
Record Order Selection

7. Tap **Next**. You will see the dialog box shown in Figure 7-30.
8. Choose **Tabular** in the *Layout* group and **Portrait** in the *Orientation* group.

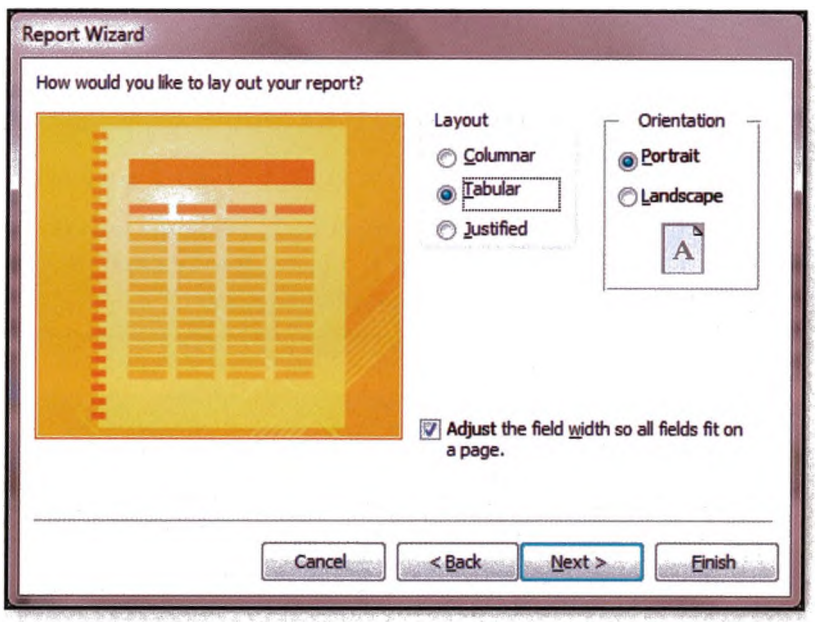


FIGURE 7-30
Report Lay Out Selection

9. Click **Next**. You will see the screen shown in Figure 7-31. In this window, name the report **TravelView Contacts Report**.
10. If necessary, choose **Preview the report** as seen in Figure 7-31.

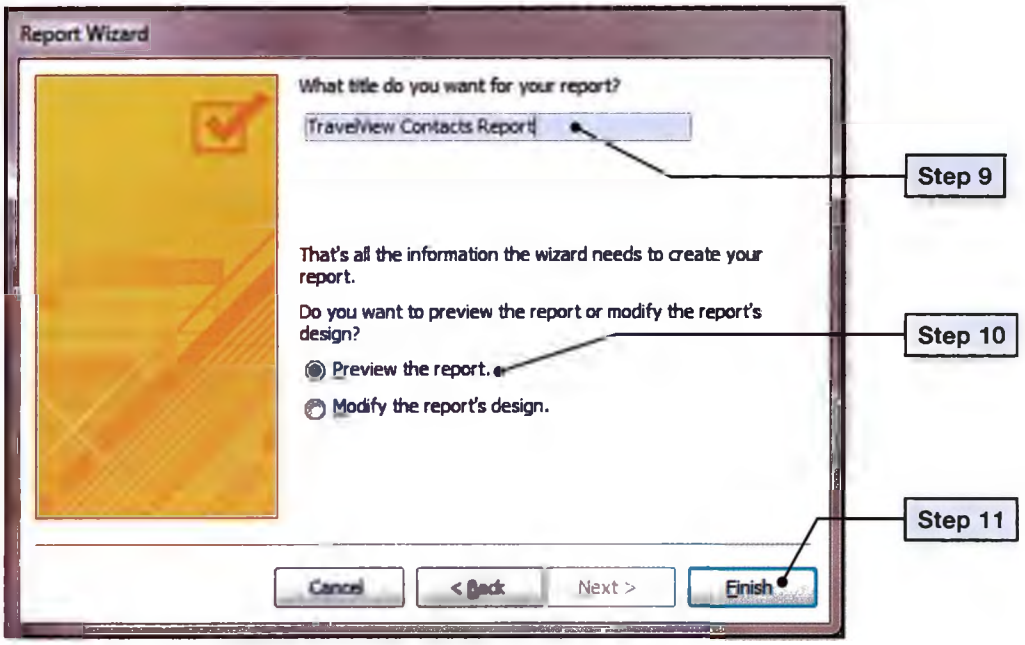


FIGURE 7-31
Report Title Entry

11. Choose **Finish** to view your report.
12. Review your report, which may look similar to Figure 7-32.
13. Display all of your objects by clicking the double-arrows pointing down in the Navigation pane. You will see that the report you have created appears in the Unassigned Objects.
14. When you are finished viewing the report, close the preview by selecting the **Close Print Preview** button as marked in Figure 7-32.

INSTANT MESSAGE

To see your report at a later time, choose **TravelView Contacts Report** object from the Contacts Navigation pane.

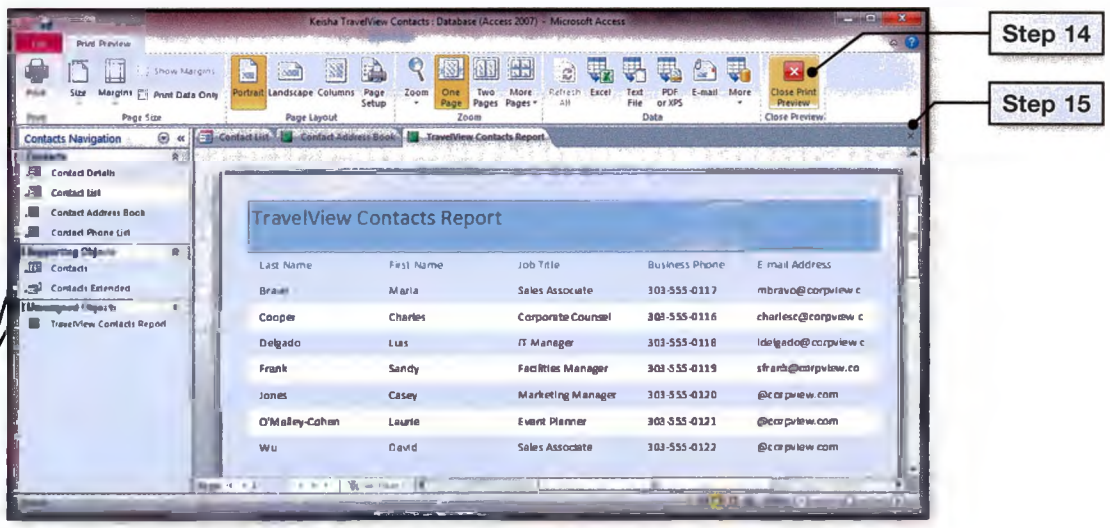


FIGURE 7-32
Report Preview

15. The TravelView Contacts Report will appear in Design view. Close the report by selecting the Close TravelView Contacts Report button (the X) shown in Figure 7-32. Leave the database open for the next activity.

QUERY

A **query** is a question or a request to extract specific information from a database. Setting up a query is very much like setting up a report. In a report, you select the fields you want to include. In a query, you select the fields you want to include *and* you can sort or filter the records that are displayed. Like reports, a query can be created using a Wizard. Give it a try in the next activity.

Activity 7-11 USING THE QUERY

1. If necessary, open Microsoft Access and ***[Your Name] TravelView Contacts*** from your ***Chapter 7*** solutions folder.
2. If necessary, double-click the **Contact List** object from the Contacts Navigation pane.
3. Choose the **Create** tab.
4. Choose **Query Wizard** from the *Macros & Code* group.
5. In the New Query Wizard window, choose **Simple Query Wizard** followed by **OK**. (See Figure 7-33.)

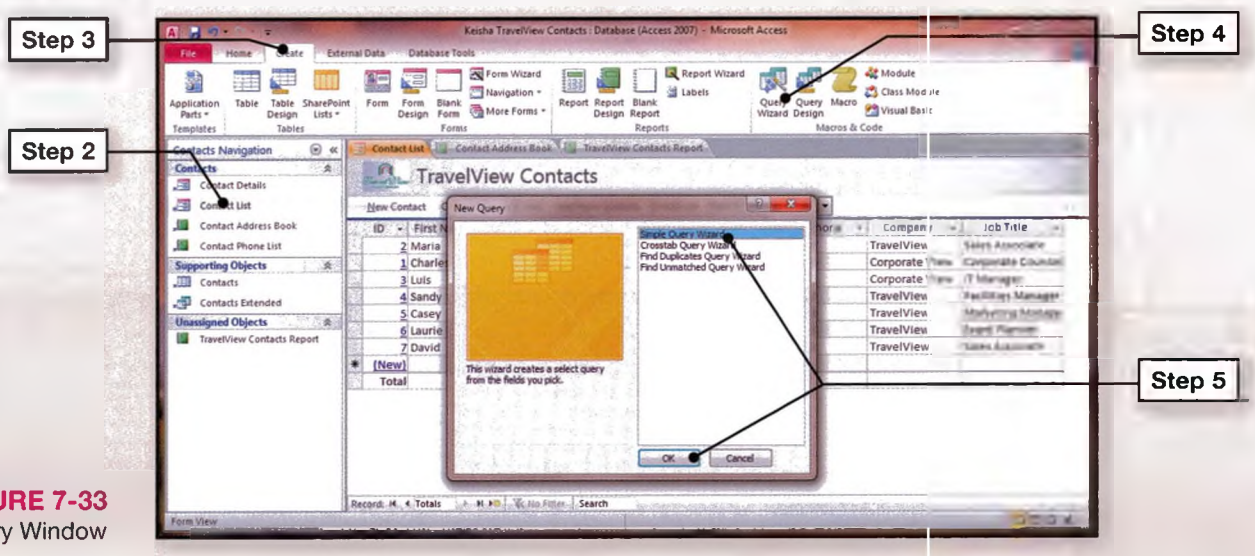


FIGURE 7-33
New Query Window

6. In the Simple Query Wizard window, shown in Figure 7-34, choose just the fields you want to be displayed at the end of the query. Move fields from the *Available Fields* column to the *Selected Field* column by choosing field one and clicking the move arrow marked in Figure 7-34 or by double-clicking the field name in the *Available Fields* column. Move the following fields in this order:
   Company
   Last Name
   First Name
   E-mail Address
   Job Title
   Business Phone

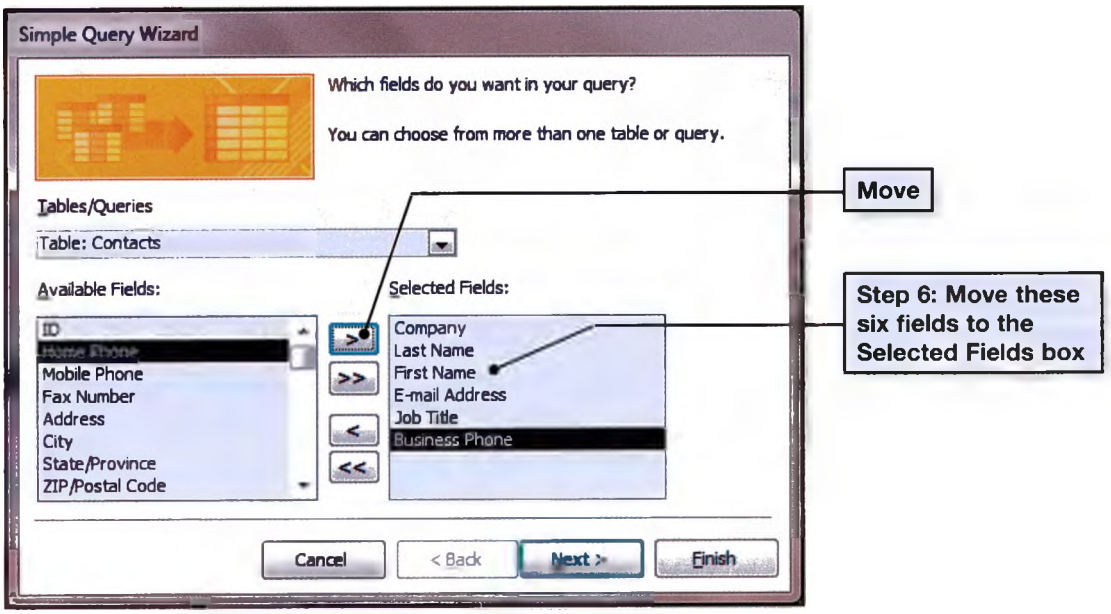


FIGURE 7-34
Field Selection for Simple Query

7. Choose **Next**. You will see the screen shown in Figure 7-35.
8. Create a title for your query. In this case, name it **TravelView Contacts Query**.
9. Choose **Open the query to view information** as seen in Figure 7-35.
10. Choose **Finish**.

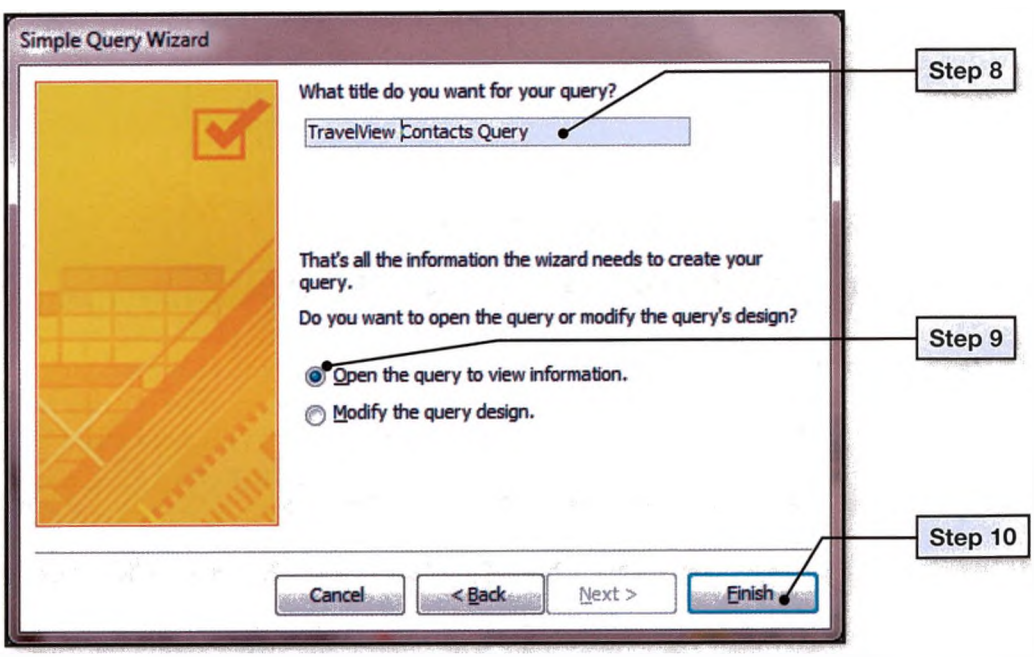


FIGURE 7-35
Query Title Entry

11. All the information you have selected for your query will be displayed. Notice that each column can be filtered and sorted as in the Tables view of the records.
12. Review the information. If it is incorrect, repeat the process and create a new query.

INTO THE CLOUD

Believe it or not, the Internet is dependent on databases. Many online apps require sophisticated database structures in order to organize and share data. These databases are hidden in the background, so we are often unaware that we are accessing a database for information as we go about our business.

Here is an example: Online sharable calendars such as Google Calendar (the free online scheduling system) require database structures to work properly. Imagine the database it takes to allow millions of people to keep personal calendars and yet share those calendars with others—even millions of other people. People can share these calendars in real time. The term *real time* simply means that as one person updates his or her calendar, all those who can access that calendar automatically get the update at the same time.

Here is another prime example: Google catalogs literally the entire Internet and organizes it for quick searches in its proprietary database-type structures. This information is saved in Google's massive data centers. Google searches are called *queries*, which is the same term used to find information in a database. When you do a Google search, you query the data center, which delivers the information for which you are looking.

Other online apps are supported by databases. The apps could not work effectively without the databases.

- Hospital medical records
- Bank and financial accounts
- E-mail systems
- Phone and instant messaging accounts
- Business tools
  - Enterprise Resource Planning (ERP) software
  - Customer Relationship Management (CRM) software
  - Supply Chain Management (SCM) software

Discussion:

1. How do you think hospital medical records benefit from database software?
2. Could you design a database to keep track of all the activities and organizations that each student in your school belongs to and participates in?
3. Could you design a database to organize everything you own for insurance purposes?

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 7-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools.*

Building Up: Your Math Skills

Exercise 7-2 CALCULATING VOLUME DISCOUNTS

You will need to fire up your spreadsheet software for this exercise.

In planning for next year's budget for the TravelView Accounts Payable Department, a study was done of how the work could be improved by using a new, state-of-the-art database to streamline the payment process.

The new system can be operated with a database manager and two data entry clerks instead of four clerks doing the job with the old system. Calculate the savings by comparing last year's expenses against the new, proposed budget.

Item	Last Year's Expenses	Proposed Budget
Salaries	$133,000	$96,000
Supplies	4,000	3,800
Repairs and Maintenance	5,000	2,500
Depreciation	3,000	6,000
Telephone	3,500	3,900

1. Calculate the total expenses for the department using last year's figures.
2. Using last year's figures, calculate the percentage of total expenses that each expense item represents. Round percents to one decimal place.
3. Using last year's figures, calculate the cost per invoice processed if 144,500 invoices were handled during the year.
4. Determine the difference in total expenses between last year's figures and the proposed budget.
5. Calculate the percentage decrease in total expenses if the proposed budget is used.
6. The new database software will cost $15,000 per year. Will there be enough savings to pay for the new system?
7. Save your work as ***Exercise 7-2*** in your ***Chapter 7*** solutions folder.

Building Up: Your Language Arts Skills

Exercise 7-3 FROM THE EDITOR'S DESK: COMMA USAGE PART 2

1. Open your browser software. Use the bookmark on your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications > From the Editor's Desk**.)
2. Choose the **Punctuation** link. Under *Punctuation*, choose the **Comma Usage Part 2** link. Read the information provided, and follow the directions for completing the practice exercise.
3. Check your answers by comparing them with the answers on the bottom of the intranet page.
4. Save your work in your ***Chapter 7*** folder as ***Exercise 7-3 Comma Usage***.

Career Clusters



Health Science

Healthcare careers are among the fastest growing. And why not? Health science professionals are involved in great work—helping people feel their best and live well.

When most people think of healthcare, they think of doctors and nurses caring for patients in a hospital. However, this career cluster is much broader than that. It includes athletic trainers for sports teams, salespeople for drug companies, cancer researchers, microbiologists for the Centers for Disease Control and Prevention, emergency medical technicians (EMTs), and assistants who maintain medical records. Look at the variety of career choices in Table 7-5.

Position and Yearly Salary		Position and Yearly Salary	
Occupational Health and Safety Specialist and Technician	$46,190	Audiologist	$49,700
Obstetrician	$133,430	Optometrist	$88,100
Athletic Trainer	$35,380	Registered Nurse	$48,240
Internist	$126,940	Nutritionist	$41,070
Medical Records and Information Technician	$25,370	Surgeon	$137,050
Family or General Practitioner	$110,020	Dentist	$110,820
Emergency Medical Technician or Paramedic	$25,450	Pediatrician	$116,550
Anesthesiologist	$131,680	Chiropractor	$76,870
Occupational Therapist	$52,210	Respiratory Therapist	$39,870
Pharmacist	$72,830	Podiatrist	$94,500

TABLE 7-5
Career Cluster: Health Science

Health science careers require considerable education and advanced training. For example, medical doctors may have as many as eight years of study and must complete residency work under careful supervision at hospitals and clinics before they are allowed to practice medicine.

Exercise 7-4 UNTANGLING CAREERS IN HEALTHCARE



1. Terms describing medical specialties can be confusing! Give your team a quiz. Read this list of occupations together, and guess what each of these people do.

Anesthesiologist	Gerontologist	Optometrist
Audiologist	Immunologist	Pediatrician
Cardiologist	Internist	Pharmacist
Chiropractor	Neurologist	Podiatrist
Dermatologist	Nutritionist	Respiratory Therapist
Emergency Medical Technician	Occupational Therapist	Speech Pathologist
Endocrinologist	Ophthalmologist	

INSTANT MESSAGE

Information about health science careers can also be found in the Occupational Outlook Handbook at http://www.bls.gov/ooh.

2. Check your guesses. Using a search engine on the Internet or an online medical dictionary, look up each career listed above. Make notes on what each of these careers is all about.
3. As a team, compile a short description of what each person does in the career. Save your copy as ***Exercise 7-4*** in your ***Chapter 7*** solutions folder.

21st-Century Skills

Critical Thinking and Problem Solving

Exercise 7-5 CREATE A DATABASE



1. With your team, think of a possible database project.
2. Present your project to your instructor for approval. Then design and create the approved database as a group. Do not forget that you can start with a database template if it helps and then modify it to fit your needs. Here are some ideas:
   - Create a database for your school bookstore, cataloging all of the items for sale.
   - Create a database that will comprise an inventory of all the books, computers, and supplies used by one of the instructors in your school.

- Create a database cataloging all of the artwork owned by the school or produced by students.
- Create a database inventorying all of the physical education equipment in the building.
- Create a database cataloging all of the school's musical instruments and their value.

3. Have each team member save a copy of the database in his or her ***Chapter 7*** solutions folder. Think of an appropriate name for your database before you save.

Initiative and Self-Direction

Exercise 7-6 CREATE AN INVENTORY FOR ALL THE ITEMS OF VALUE IN YOUR HOME

It is wise to catalog everything of value in your home. That way, if there is an accident such as a flood or a fire, your database can provide the necessary information to insurance companies on the value of all of the articles that were once found in your home. This information should be stored electronically, in the cloud and away from your home for safekeeping. If you do not have a record of everything, it will be much harder to submit a claim on your insurance.

1. Create a database that catalogs everything in your home.
2. Using digital photography skills, take pictures of each of the items for which you have created records in your database. Insert a thumbnail of each image in your database as explained in Activity 7-6.
3. Save your database in your ***Chapter 7*** solutions folder. Name the database ***Home Inventory***.

Chapter 8

Digital Image Imagination Skills

Lesson 8-1 Scan and Enhance Digital Graphics
Lesson 8-2 Capture Images from a Camera to a PC
Lesson 8-3 Manipulate Graphics in Documents

IMAGE IS EVERYTHING



© Idealink Photography/Alamy

The use of images—graphics, video, charts, graphs, photos, drawings, and pictures—can make the difference between a captivating presentation and a failed message. In this chapter, you will learn how to capture images and bring them back to your PC so you can use them in your digital communications.

FIGURE 8-1
Images can have a positive impact on your message.

LESSON 8-1 Scan and Enhance Digital Graphics

IN THIS LESSON YOU WILL:

Objectives

1. Learn about pixels, rasters, vectors, and resolution.
2. Learn about appropriate file formats for both online and printed documents.
3. Select images, learn the basics of scanners, position images, and consider the orientation of an image.
4. Preview, adjust, and scan images.
5. Scan color, grayscale, and black-and-white images.
6. Use Windows Live Photo Gallery to manipulate images.
7. Tag images for convenient recovery and easy retrieval.
8. Adjust the brightness, contrast, hue, and saturation levels of an image.
9. Acquire and adjust images from cameras.

Key Terms

bitmap (.bmp)
brightness
contrast
digitizing
dots per inch (DPI)
graphics interchange format (.gif)
grayscale
HSB
hue
imaging devices
Joint Photographic Experts Group (.jpeg, .jpg)
landscape orientation
orientation
Photoshop file format (.psd)
pixels
pixels per inch (PPI)
Portable Network Graphic (.png)
portrait orientation
raster graphics
saturation
scanners
skewed
tagged image file format (.tiff, .tif)
tag
tint
vector graphics

Imaging devices are tools that capture pictures. Scanners and copy machines are imaging tools. Cameras are also imaging devices. While cameras allow you to snap pictures or take a quick video of nearly anything you can point your lens at, **scanners** are better for capturing images of printed documents, existing photographs, magazines, journals, newspapers, sketches, drawings, and paintings.

Digital scanners and cameras capture images and convert them into digital graphic or movie files. The images are then passed to a personal computer so they can be manipulated by digital imaging applications like Adobe Photoshop, Windows Live Photo Gallery, or Google Picasa. Apple users can use iPhoto or Aperture. Movies can be edited in applications like Adobe Premier, Windows Live Movie Maker, Apple iMovie, or Apple Final Cut Pro.

RASTERS, BITMAPS, VECTORS, AND DOTS

Cameras and scanners capture images through a process called **digitizing**. Digitizing divides an image into tiny squares in a grid pattern. For this discussion, we will call each tiny square a dot. Each dot in the grid is given a mathematical value. This value is then translated into black, white, gray, red, green, blue, yellow, or another color. The result is a **bitmap** image that can then be saved in a variety of formats. A bitmap is a collection of dots.

The density of the dots determines its resolution. The more dots in the image, the higher the resolution. Resolution is often expressed in **dots per inch (DPI)**, which is frequently shown as the number of rows and columns in the grid (for example, 1024 × 768 or a much larger 2048 × 2134).

On a computer screen or on your smart phone, grids of dots are displayed by **pixels**. Pixels are little dots of light that display color on a monitor. The resolution of monitors is measured in **pixels per inch (PPI)**.

If you zoom in closer and closer on an image, the squares or dots of color are revealed, as seen in the pictures in Figure 8-2. The closer you get to the nose on the face in this famous Roman fountain, the more obvious the pixels become. The nose turns out to be made up of yellow, black, and white dots. You can do this yourself. Open an image in a graphics tool like Paint and zoom out and in.



FIGURE 8-2
Pixels Visible with Zooming

Like digital images, little dots are also used by printers to print photographs and documents. Such bitmapped graphics are called **raster graphics**. While raster graphics capture little dots as squares of color, **vector graphics** use mathematical formulas to define all of the shapes in an image. Vector graphics do not display jagged and rough squares when you zoom in for a closer look.

SAVE THE IMAGE IN EITHER A WEB OR PRINTED FORMAT

After an image has been scanned, it can be saved in a variety of file formats. Some important file formats are explained in Table 8-1.

JPEG (.jpg)	The **Joint Photographic Experts Group** is the organization that created the standards for the JPEG format. This format supports millions of colors and can be compressed. For computer backgrounds and Web graphics, lower resolutions can be used. For printed documents, increasing the resolution is desirable. However, increasing the resolution will increase the file size.
GIF (.gif)	The **graphics interchange format** is a popular format for images used on the Internet. Images in this format are small and compressed. The format is acceptable for cartoons, logos, Web graphics, graphics with transparent areas, and animations.
TIFF (.tif)	The **tagged image file format,** also known as Microsoft Office document imaging file, is a high-resolution format. It is commonly used in desktop publishing and print publishing. Resolution can be increased and decreased in this format. It allows black-and-white and grayscale images as well as color images. It is one of the most widely supported file formats.
BMP (.bmp)	The bitmap, file format was created by Microsoft and is used widely by Microsoft Windows and other Office programs. These are smaller files; however, their resolution is low.
PSD (.psd)	The **Photoshop,** file format is the default standard supported by Adobe Photoshop. If you are working with Photoshop, this format will preserve the program's specialized layers and features.
PNG (.png)	The **Portable Network Graphic,** format is often used for graphics on the Internet. This format supports 32-bit color and transparency.

TABLE 8-1
Graphics File Formats

Generally, JPEG, GIF, and PNG formats are best for Internet images. TIFF and PSD images are usually better for printed documents. BMP images are generally easiest to manipulate in Microsoft Office applications. As you save your graphics, you need to pick the file format that best fits the specific need you have for your scanned graphic.

IMAGE SELECTION

Scanners are great tools for capturing existing images and objects. For example, you may have some old photographs that need to be preserved digitally. You may also have some artwork or awards or diplomas that you want to capture in a digital format for preservation purposes.

When selecting an image to scan, choose the best-quality image available; the better the original, the better the copy. Not all images are great candidates for scanning. Some are too dark, and others are too faded. Still others may lack color or definition. Nevertheless, if an image is important to you, even if it is too dark or too faded, scan it anyway. The scanned image can be improved later using digital software tools. Even poor-quality images can be rescued if you have the time and patience to fix them. (You will see this in Activity 8-4.)

SCANNER BASICS

INSTANT MESSAGE

A scanner takes a picture of everything it sees, so keep your scanner clean. Fingerprints, smudges, dust, or anything else on the surface of the scanner will show up in your image. Before you start any scanning project, follow the manufacturer's instructions to clean the scanner properly.

There are dozens of scanner manufacturers and hundreds of different models. (See Figure 8-3.) Each scanner works a little differently, so you will need to follow the installation and setup instructions that come with your scanner.





FIGURE 8-3
Types of Scanners

There are three basic steps to scanning an image:

1. Position the image.
2. Preview, adjust, and scan the image.
3. Save the image in an appropriate file format.

Each of these steps is discussed in greater detail in the remainder of this lesson.

POSITION THE IMAGE

The first step is to position the image on the scanner itself. If you have a flatbed scanner, place the original face down. The way an image is positioned is called its **orientation**. When the long side of the image is at the top, it is in **landscape orientation** (as shown in Figure 8-4). When the short side of the image is at the top, it is in **portrait orientation** (as shown in Figure 8-5).

INSTANT MESSAGE

Changing the orientation of an image can dramatically change the impression left by a photo. Compare the towering Eiffel Tower in portrait orientation to the small portion of it shown in Figure 8-4. The people are much more the focal point of the landscape photo.



FIGURE 8-4 Landscape Orientation

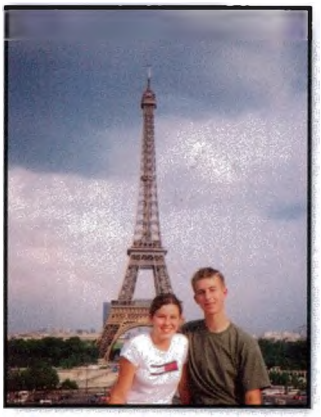


FIGURE 8-5 Portrait Orientation

Place documents as straight as possible on a scanning bed. Use the ruler or markers found on the side of the scanning bed to help you place your object in the proper position. If your scanner has a lid, lower it carefully over your image so it does not move out of position. The lid will keep your image in place and will keep the bright light from the scanner's lamp from hurting your eyes.

PREVIEW, ADJUST, AND SCAN THE IMAGE

INSTANT MESSAGE

Look carefully at a preview of your scan. If you do not like what you see, readjust, reposition, and rescan your image.

After an image has been scanned, you will have a chance to preview and adjust the scanned image before you save it. For instance, an image may have been scanned at a slant (which is called **skewed**, as shown in Figure 8-6), or scanned sideways or even upside down. If this happens, open the lid, straighten the image, scan it, and preview it again.

Also, you can preview and adjust the type of image that will be saved. For example, most scanners give you the option to scan the following:

- Color images
- Grayscale images
- Black-and-white documents.

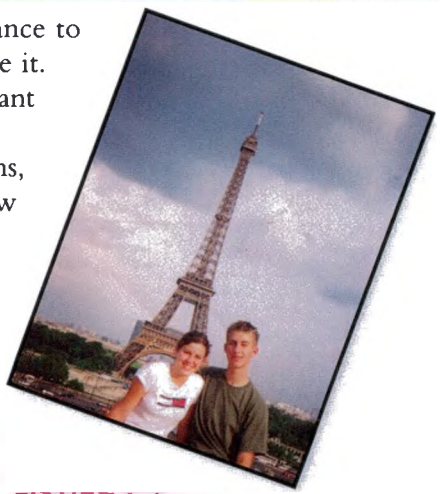


FIGURE 8-6
A Skewed Image



FIGURE 8-7
Color Format Options

The Color option will result in a colored image close to the original. The Grayscale option substitutes colors with various shades of gray. The Black-and-white option is used for images or text documents without any color.

When it is time to save the image, File type and Resolution settings can also be adjusted for each scanned image.

SCAN AN IMAGE WITH YOUR OS SOFTWARE

In this first activity, you will learn how to capture an image using the Windows Live Photo Gallery scanning utility found in Windows 7 and Windows Vista. Your specific computer system may require a different set of steps. Consult your system administrator or instructor if you have problems scanning.

Activity 8-1 WINDOWS OS SCANNING INSTRUCTIONS

1. Choose a printed photograph or some other image that is important to you—something you feel should be preserved in a digital format.
2. Place the original facedown on the surface of a clean flatbed scanner. Orient your document so it is as straight as possible. If the scanner has a lid, lower it carefully.
3. Open Windows Live Photo Gallery using one of these two methods:
   a. Choose **Start** followed by **All Programs**. Choose **Windows Live Photo Gallery**.
   b. Choose **Start** and key the words **Photo Gallery** in the search bar. Pick **Microsoft Photo Gallery** from the Start list. (See Figure 8-8.)

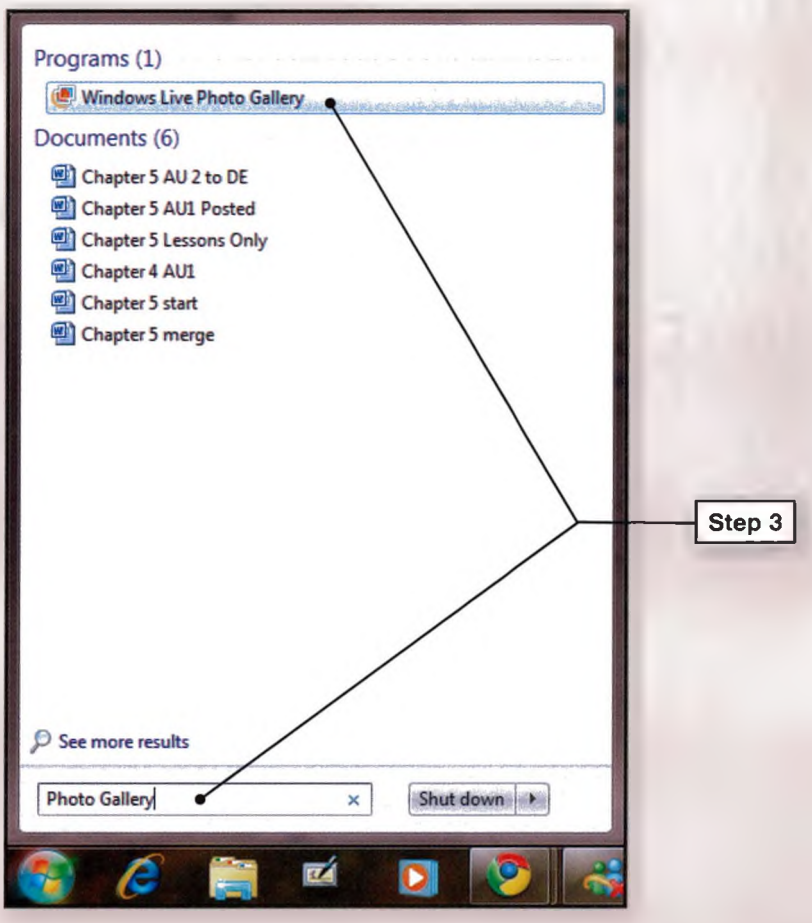


FIGURE 8-8
Locating Windows Live Photo Gallery

4. In the Windows Live Photo Gallery window, choose **File** and then **Import from a camera or scanner**. (See Figure 8-9.)

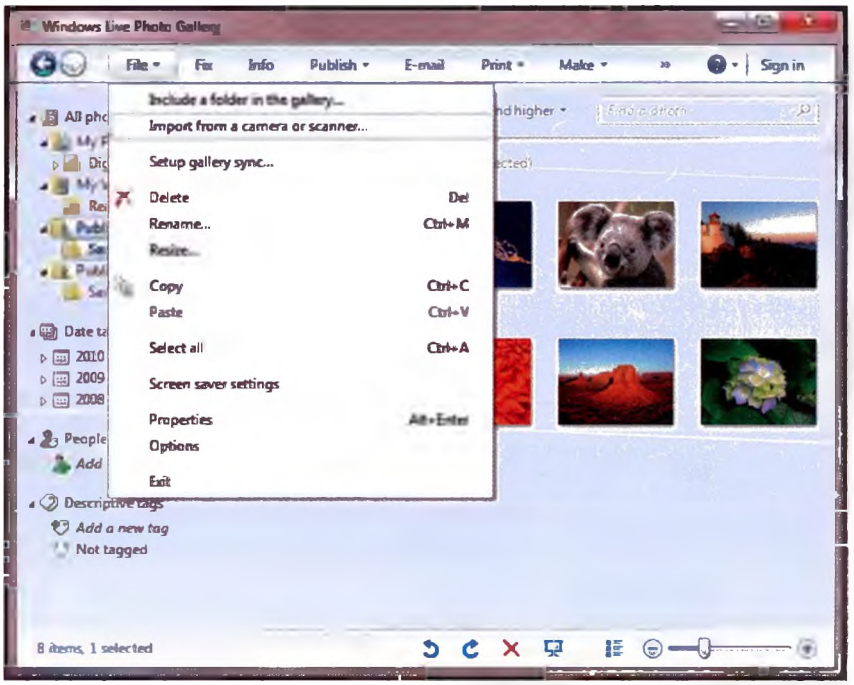


FIGURE 8-9
Import Option

5. In the Import Photos and Videos dialog box, select the scanner you will use; then pick **Import**. (See Figure 8-10.)

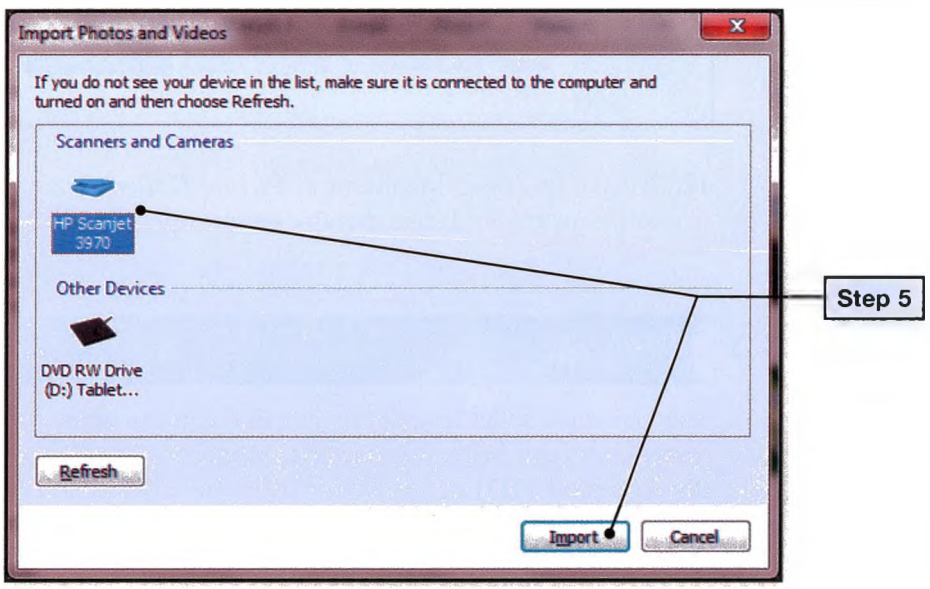


FIGURE 8-10
Import Photos and Videos Dialog Box

6. In the New Scan dialog box, choose **Profile** and then **Photo (Default)**. (See Figure 8-11.)
7. From the *Color format* option, choose the **Color** as shown in Figure 8-11.
8. From the *File type* list, choose **JPG (JPEG Image)** for the file format. (See Figure 8-11.)

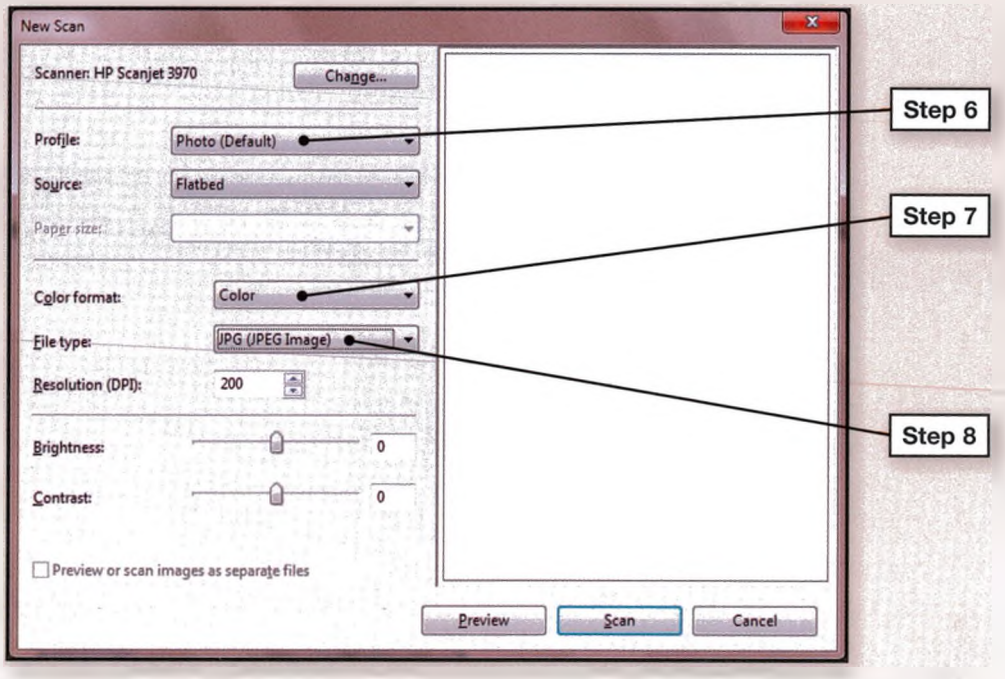


FIGURE 8-11
New Scan File Settings

9. For the resolution, choose **200**. (See Figure 8-12.)

10. Click **Preview**. The scanner will run its lamp down the full length of the scanner's glass bed. A small image of your document will show in the preview screen. (See Figure 8-12.)

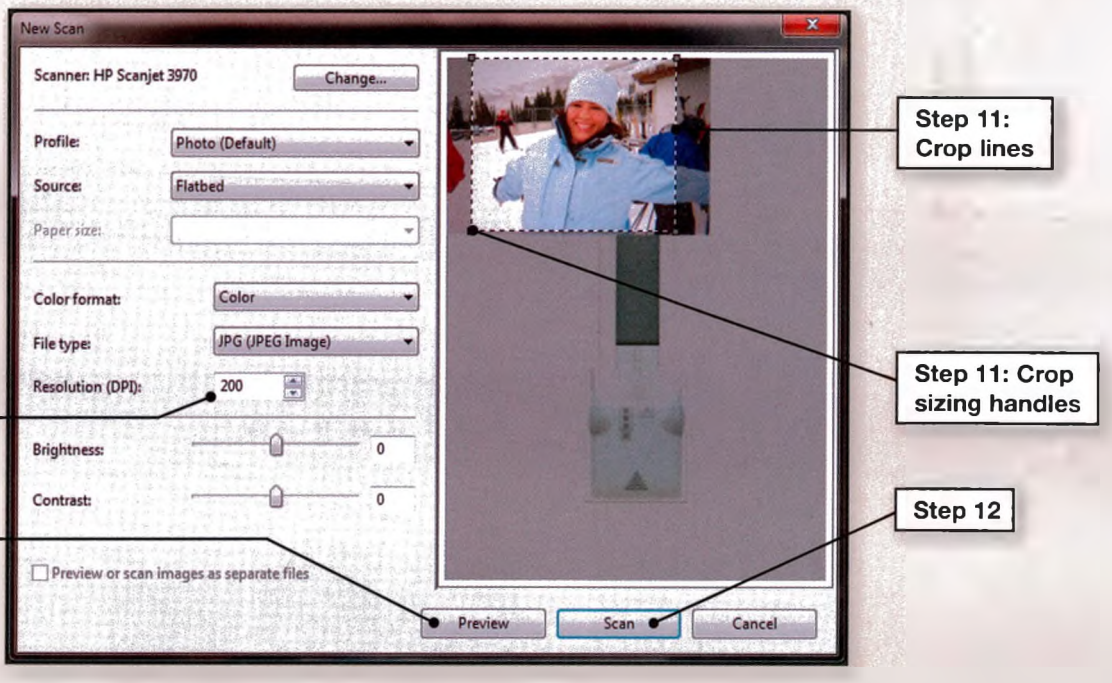


FIGURE 8-12
Scanning Preferences

INSTANT MESSAGE

To crop means "to cut or trim."

11. The crop lines and crop sizing handles will display around the image as shown in Figure 8-12. Click or tap and drag inward on one of the crop handles until you have selected only the part of the image you wish to capture. (*Note:* If needed, modify the scan settings and preview the picture again.)

12. When you have the image selected as you like, click **Scan**.

DigiTip

Windows Live Photo Gallery prompts you to **tag** the picture so that it will be easier to organize and find later. A tag is a special type of category. For example, say you took 27 pictures on a recent vacation to Hawaii. If you tag each picture with the same group name (such as *Hawaii*), you can search all of those images by that name in your Windows Picture Gallery.

13. Think of and key a tag name for your image. Related pictures should have the same tag. In Figure 8-13, *Ski Utah* has been chosen as the tag or category name. Then choose **Import**.

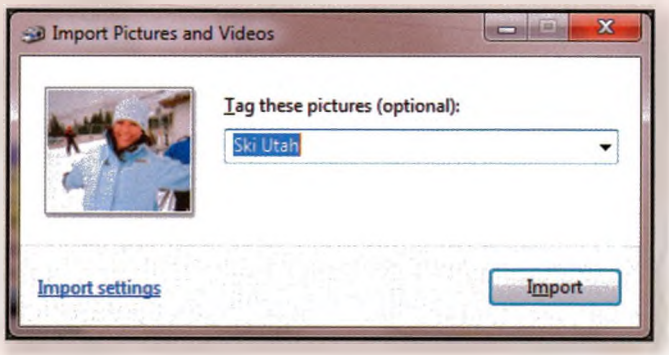


FIGURE 8-13
Image Tagging

DigiTip

When the scan is complete, Windows Live Photo Gallery will automatically name your file with a number, tag it, and save a copy in your ***Pictures*** folder. Later, if necessary, you can move your images to other folders and rename the files, as explained in Chapter 1.

14. Preview your scanned image in the Windows Live Photo Gallery by choosing your tag's name, as seen in Figure 8-14.

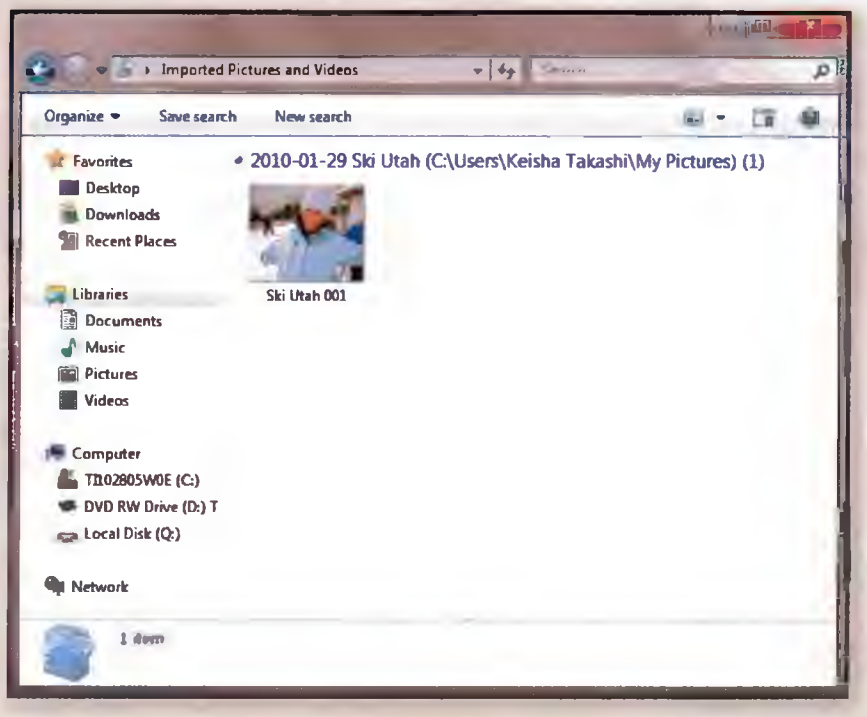


FIGURE 8-14
Final Image Preview

USING WINDOWS LIVE PHOTO GALLERY TO IMPROVE IMAGES

The Windows Live Photo Gallery gives you many different ways to view and manage your images. It is a great tool for adjusting the color, contrast, and brightness of all your photos. You can also review all of the images as a group (by choosing All Pictures and Videos), or you can view images by categories by choosing the name of the tag for the category you seek. You can also search for images by the date they were taken or establish a ratings scale for your photos. Try some of these alternatives in the next few steps.

Activity 8-2 MANIPULATE IMAGES WITH PHOTO GALLERY

1. Open your Windows Live Photo Gallery as explained in Activity 8-1.
2. To view all of the images (and videos) in the Photo Gallery, choose **All photos and videos** at the top of the list as marked in Figure 8-15.
3. To view images by a tag, choose the date or a tag name as marked in Figure 8-15. Only images in that tag's category are displayed.

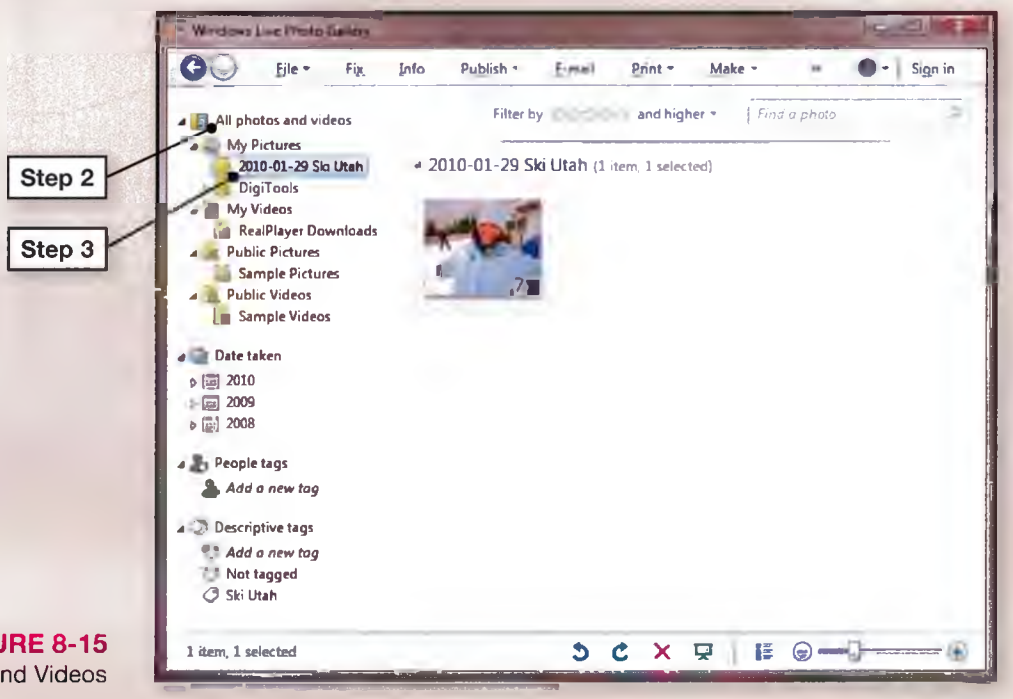


FIGURE 8-15
Pictures and Videos

4. Choose **Public Pictures** followed by **Sample Pictures**.
5. Hover over the thumbnails of one of the images as seen in Figure 8-16. Notice that you will see a larger thumbnail with information about the file displaying at the bottom of the image.

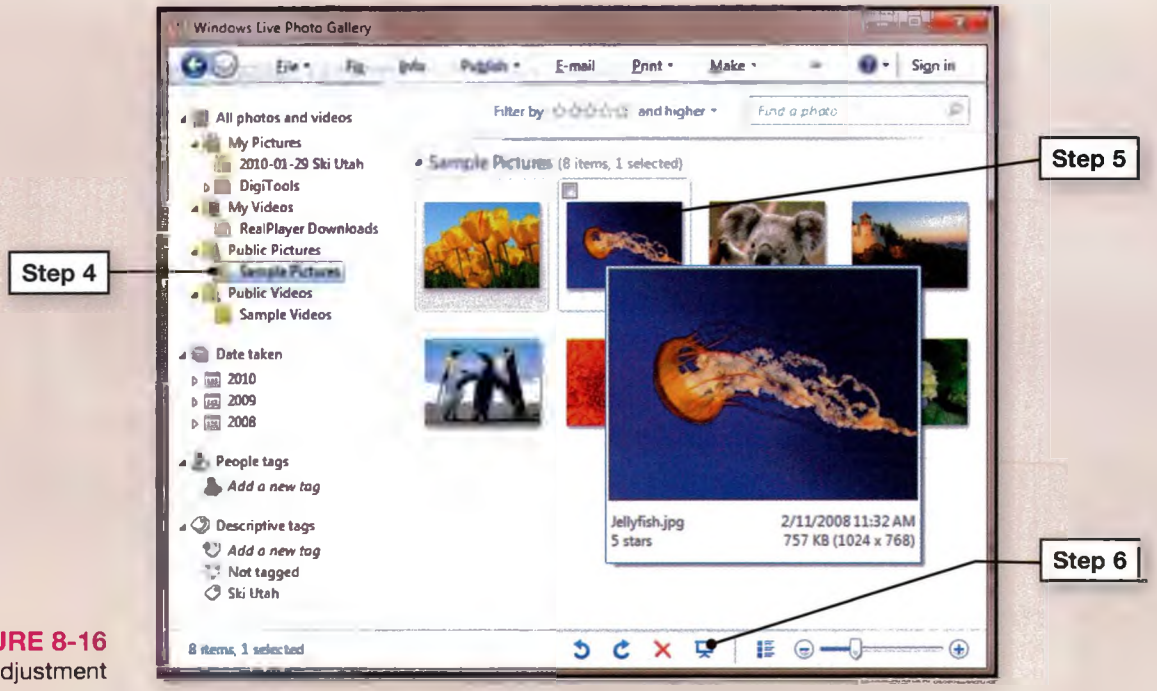


FIGURE 8-16
Image Before Adjustment

6. If you choose the **Slide Show** button at the bottom of the screen, you can view a slide show of all of your images. You can scroll through your images both forward and backward and one at a time. Tap the **Escape** (ESC) key to leave the slide show.

7. Use the rotate buttons at the bottom of the window. Rotate an image of your choice as seen in Figure 8-17.

INSTANT MESSAGE

To reduce the length of the list, click or tap the icons next to the Tags, Date Taken, Ratings, or Folders buttons. To expand the list again, click the icons again.

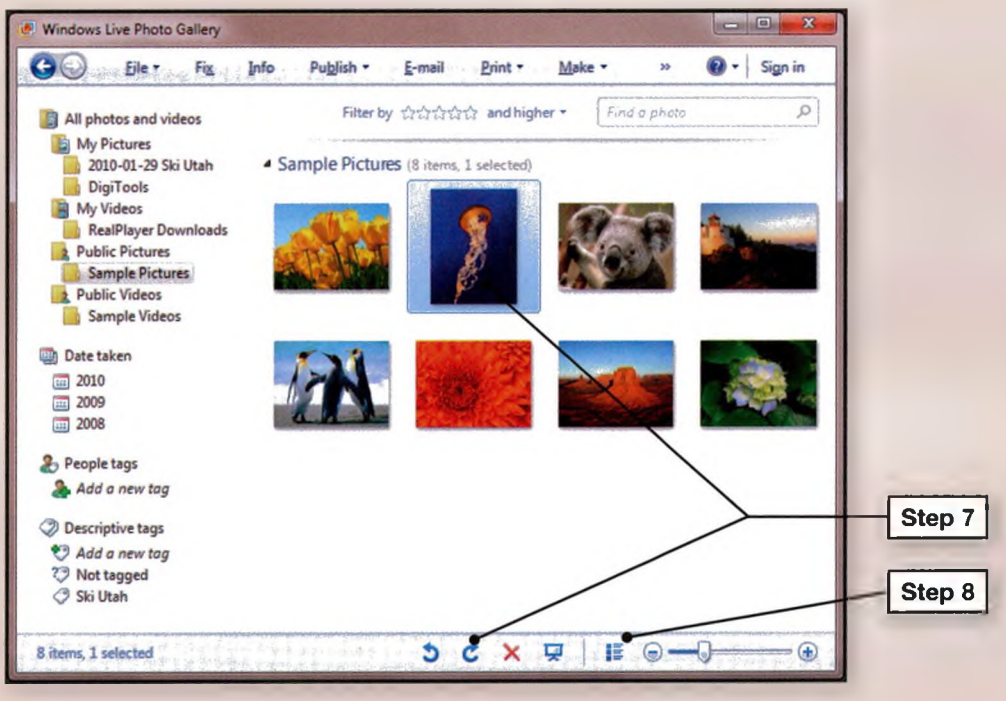


FIGURE 8-17
Brightness and Contrast Adjustment

8. Try some of the other options at the bottom of the screen, such as the Zoom button and the View thumbnails button to display more information about the image.
9. Return to the image you scanned in Activity 8-1, and double-click on it to open the image in a bigger editing window. (If you do not have a scanned image to work with, use one of the Sample Pictures.)
10. Make up a caption, and add it to your image. In Figure 8-18, the caption "Ski Trip to Solitude" was added.
11. Key your name as the author as marked in Figure 8-18.

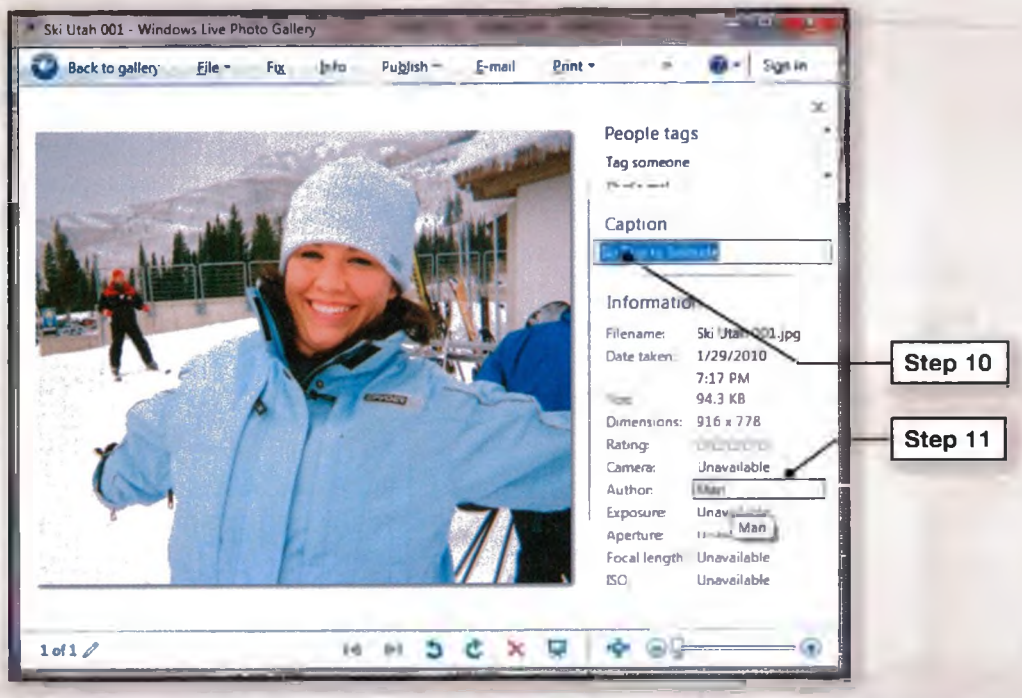


FIGURE 8-18
Image Statistics

IMAGE OPTIONS IN PHOTO GALLERY

Windows Live Photo Gallery gives you several tools that can help you improve your images. For example:

- Use Auto adjust to let Windows Live Photo Gallery improve your image automatically.
- Use the Adjust exposure feature to control the brightness and contrast of your images.
- Use the Adjust color features to change the hue and saturation of your images.
- Use the Crop photo feature to cut out any unwanted information from your image and to focus on certain parts of the photo.
- Use the Fix redeye feature when the eyes of your subject have turned red in a flash photo.
- Use Straighten Photo to exaggerate the angle of an image.

The best way to learn what these features do is to practice using them. Also, read more about each of these adjustments in *Digital Snapshot: Image Exposure and Color* on page 286.

DIGITAL SNAPSHOT

Image Exposure and Color

Sometimes the lighting is not right! Images get washed out or become too bright or too dark. This happens in low or high lighting conditions, causing images to be underexposed or overexposed, respectively. You can fix these problems with the brightness and contrast controls found in your software. Light and color variations are created by substituting existing colors with another color, which is like looking at a picture through colored sunglasses.

Brightness determines how light or dark pixels are inside an image. **Contrast** is the difference between the dark and light pixels in an image. Increasing the contrast enhances the difference between the light and dark portions of an image. Decreasing the contrast brings those values closer together. Changing the contrast can change the sharpness of an image.

Colors are often designated by the acronym **HSB**, for *hue*, *saturation*, and *brightness*. The term **hue** refers to whether a color is red, green, blue, purple, or something else.

Saturation refers to the purity of a color or hue. Think of this example: If you have a can of white paint and put a few drops of purple in the can, the saturation level will be low. Pastel colors are low-saturation versions of a hue. However, if you mix half a full can of purple paint with your white paint, the saturation level increases dramatically and the purple becomes richer and darker.

The **tint** feature changes the qualities of a hue so it differs slightly from a primary color.

If you do not want any color, you can select the option for **grayscale**. Grayscale substitutes existing colors with gradations of gray.

Activity 8-3 CHANGE IMAGE SETTINGS WITH PHOTO GALLERY

1. Open the image you scanned in Activity 8-1, and double-click on the image to open the Editing Window. (If necessary, use a sample picture for these steps.)
2. To improve your chosen picture, choose **Fix** (marked in Figure 8-19). You will see many options. We'll start with Crop and try other options later.
3. Choose **Crop photo**. Crop your photo. In the example in Figure 8-19, the shot is tightened to focus on the facial features in a close-up.
4. Use the crop lines and crop handles to adjust the dimensions around the image you want to crop.
5. Choose **Apply** to finalize your cropped selection.
6. Start by selecting **Auto adjust**. Watch your picture carefully as you do. The Photo Gallery will make a few quick adjustments that are easy for you to miss—so pay close attention.

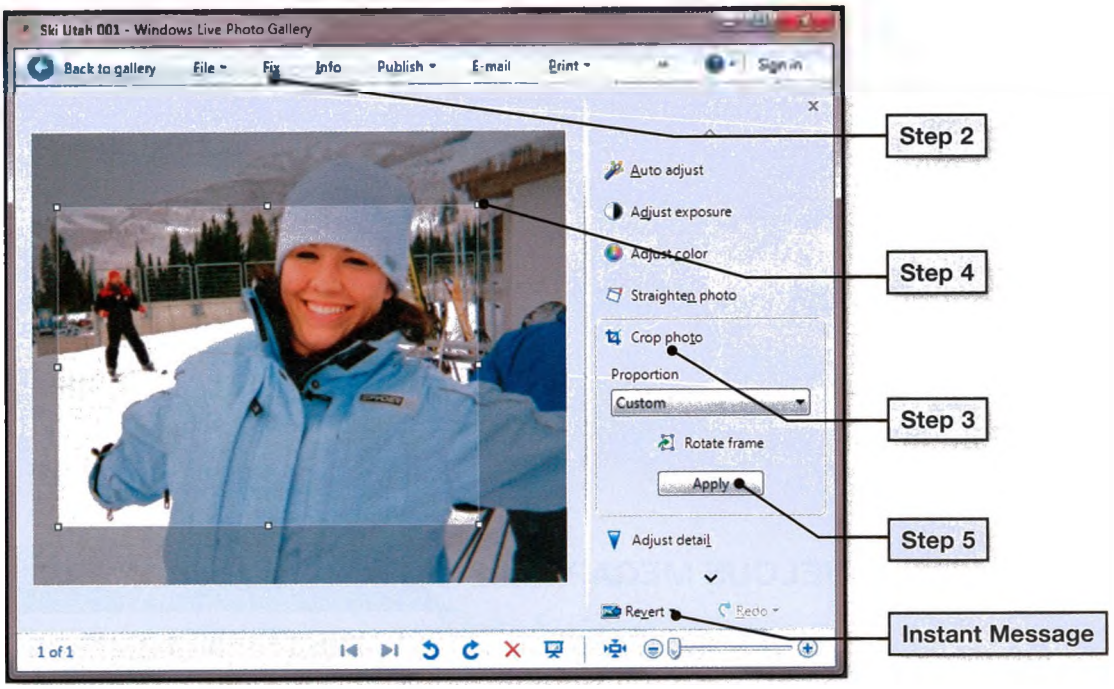


FIGURE 8-19
Image Cropping

INSTANT MESSAGE

If you don't like the changes you've made, simply pick Undo to back up one step at a time or pick Revert to start over with the original image. (See Figure 8-19.)

7. Choose **Adjust exposure**. (See Figure 8-20.) Experiment with the brightness and contrast controls on your image. In the sample image, adjust the Brightness and Contrast settings to make the image look sharper. Manipulate the Shadows and Highlight level sliders too. Distort those settings as much as you like, and bring them back to a more reasonable setting later. (Again, you can use the Undo button to return to previous settings.)

8. Click **Back to gallery** when you are satisfied with your changes and wish to view the adjustments you have made.

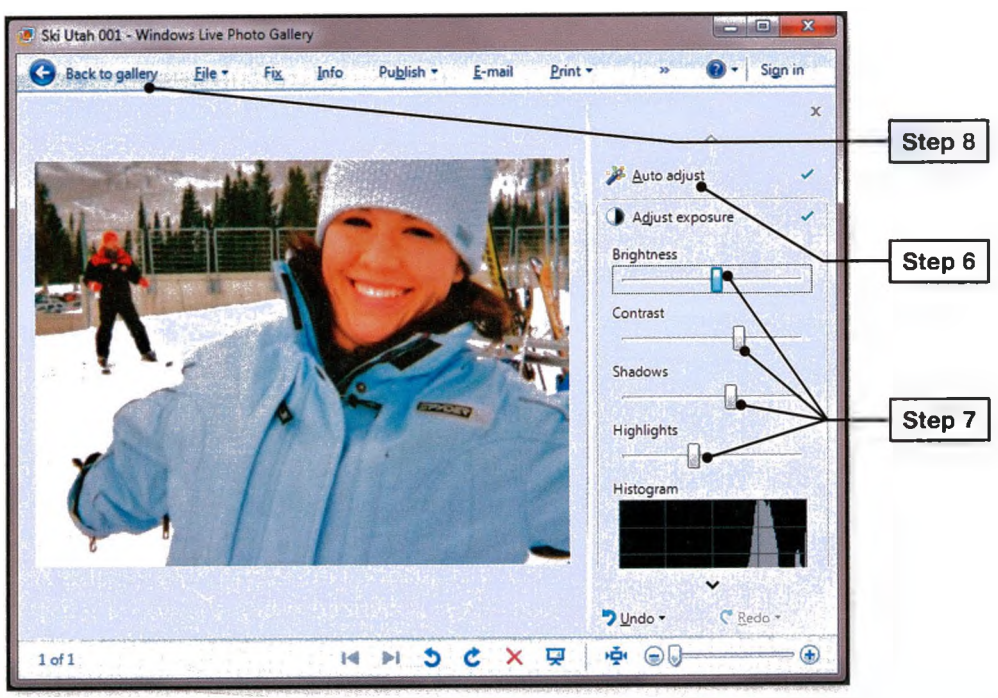


FIGURE 8-20
Image Exposure Level Adjustment

9. Experiment with the Adjust Color option. Choose the **Fix** option again, followed by **Adjust Color** (marked in Figure 8-21). Manipulate the Color Temperature, Tint, and Saturation level sliders. Feel free to distort those colors as much as you like, and bring them back to a more reasonable color later. (You can also use the Undo button to return to previous settings.)

10. One last procedure: Choose the **Straighten photo** option marked in Figure 8-21. A grid and a slider will appear. This option allows you not only to straighten a photo, but also to twist and exaggerate its angle. Move the slider left and right to see the range of motion.

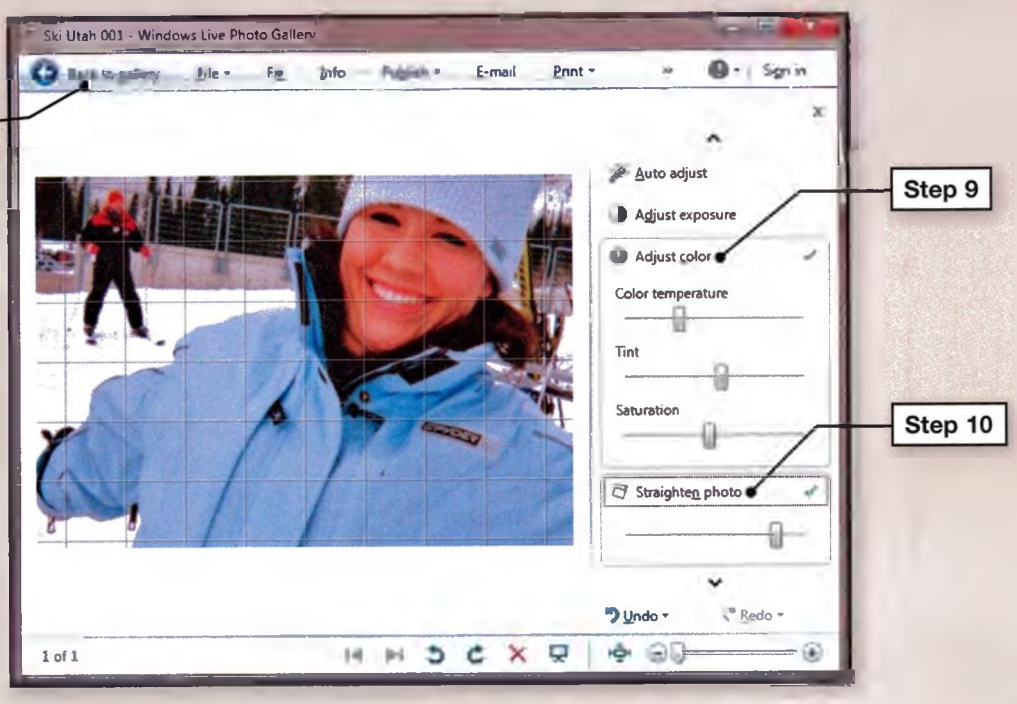


FIGURE 8-21
Color Setting Adjustment

INSTANT MESSAGE

Reminder: After you return to the gallery, you can restore an image to its original form by double-clicking on it, selecting Fix, and choosing Revert.

11. Return to the Windows Live Photo Gallery to view your final changes by choosing **Back to gallery** as marked in Figure 8-21.

SCANNING PHOTOS WITH GRAYSCALE

Next, we will experiment with grayscale scanning. Grayscale substitutes color with 256 gradations of gray, from black (0) to pure white (255). Grayscale can turn a color photograph into a black-and-white image or preserve an old-fashioned black-and-white photograph. The black-and-white photo in this example is over 50 years old and was found crumpled up in an old shoe box full of family photos. It needs to be saved digitally for future generations of kids, grandkids, and great-grandkids.

If you cannot find an old black-and-white photo to scan for the next activity, substitute a color photo instead. Taking a color image to grayscale can sometimes make images more interesting.

1. Find an old black-and-white photo or image. (If necessary, substitute a color image.)
2. Place the original facedown on the surface of a clean flatbed scanner. Orient your document so it is as straight as possible. If the scanner has a lid, lower it carefully.
3. In the Windows Live Photo Gallery window, choose **File** and then **Import from camera or scanner**. (See Figure 8-9.)
4. In the Import Photos and Videos dialog box, select the scanner you will use and then pick **Import**. (See Figure 8-10.)
5. In the New Scan dialog box, choose **Profile** and then **Photo (Default)**.
6. Select the **Color format** option as shown in Figure 8-22, and then choose the **Grayscale** option.
7. From the File type list, choose **JPG (JPEG image)** for the file format.
8. For the Resolution, choose **200** for when practicing and when putting online. Scan higher resolution graphics if you plan on reprinting the image.
9. Click **Preview**. The scanner will run its lamp down the full length of the scanner's glass bed. A small image of your document will show in the preview screen.

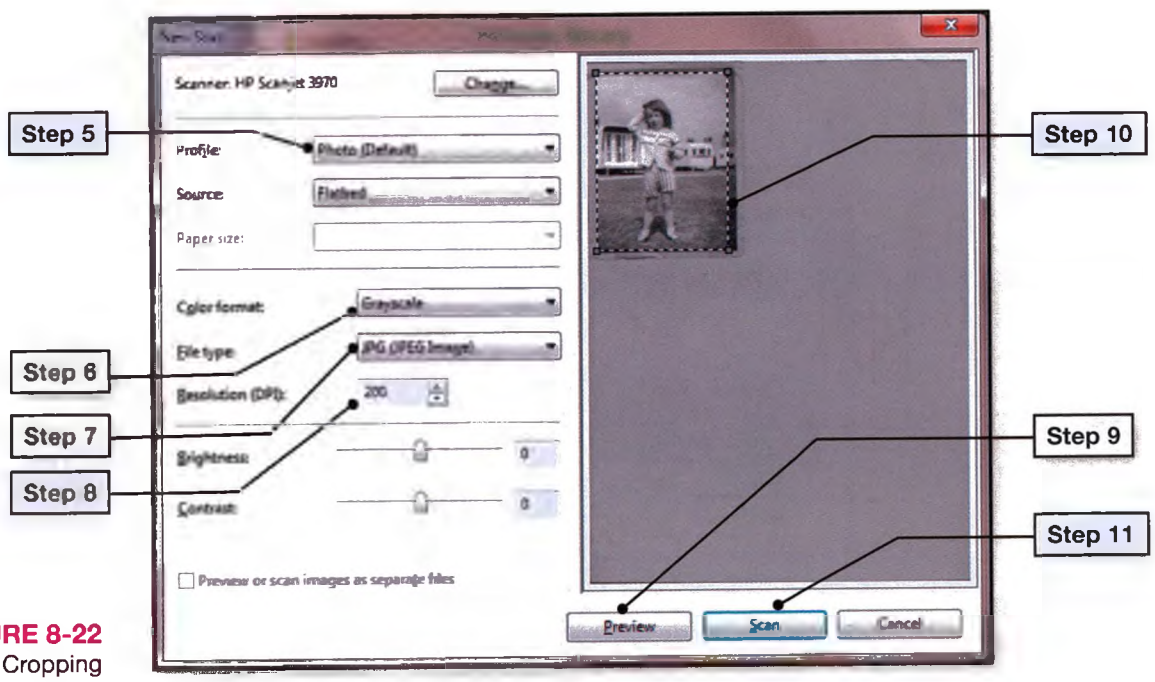


FIGURE 8-22
Image Cropping

10. The crop lines and crop handles will display around the image as shown in Figure 8-22. Click or tap and drag inward on the crop handles until you have selected only the part of the image you wish to capture. (*Note:* If needed, modify the scan settings and preview the picture again.)
11. When you have the image selected, click **Scan**.

12. Think of and key a tag name for your image. Related pictures should have the same tag. In Figure 8-23, the tag *1960s Family Photos* was used because the example is one of several photographs found in a shoe box full of old, nearly forgotten pictures.

13. Choose **Import** as marked in Figure 8-23.

INSTANT MESSAGE

After you have created a tag name, you can use it again. Existing tag names will appear in the drop-down list and can be applied to additional photographs.

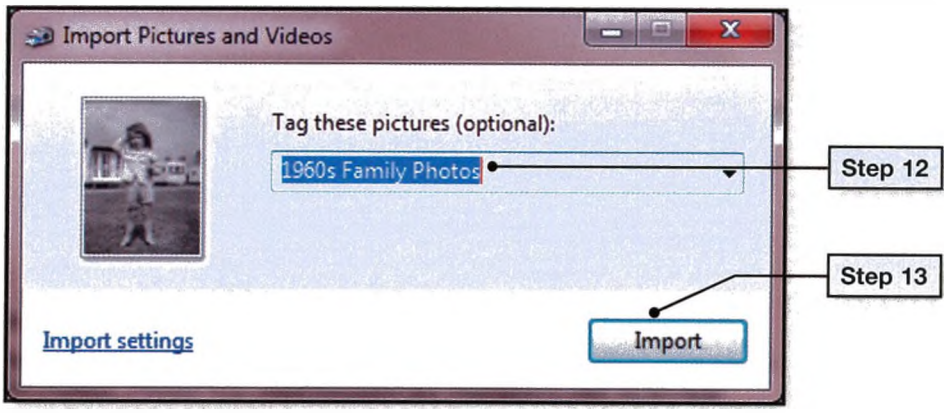


FIGURE 8-23 Photo Tag Name

14. Preview your scanned image in the Windows Live Photo Gallery by choosing your tag's name.

DigiTip If you are not satisfied with the brightness and contrast settings, try adjusting the image sliders as you learned to do in Activity 8-2. Slight changes are probably better than dramatic changes.

15. Use the **Auto adjust**, **Adjust color**, **Adjust exposure**, and **Crop photo** features to enhance your old photograph. (See Figure 8-24.) Be creative.

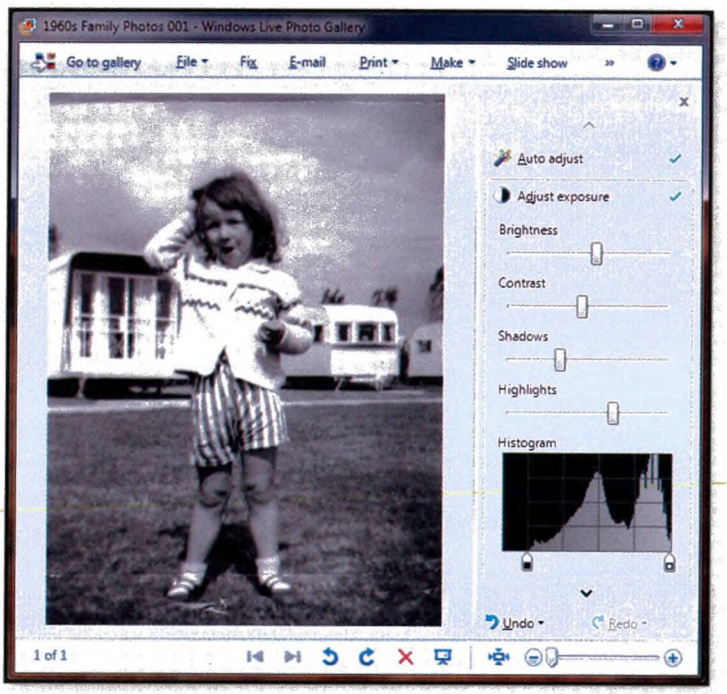


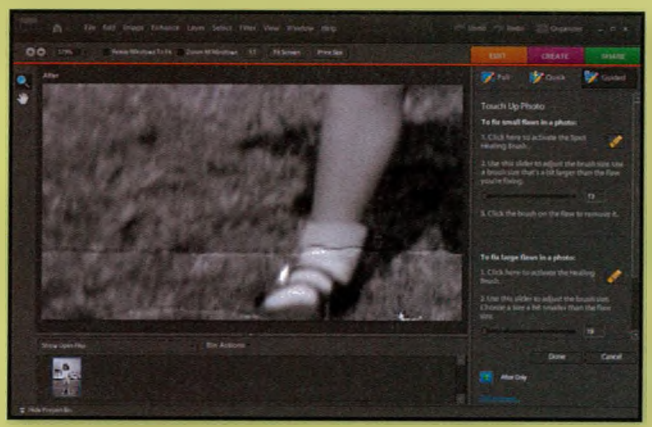
FIGURE 8-24
Grayscale Image Modified

DIGITAL SNAPSHOT

Photoshop Fixes Every Flaw

James Cameron—director of the groundbreaking 3D movie *Avatar*, the most profitable movie of all time—is known for special effects. When he was younger, in 1989, he directed an expensive movie called *The Abyss*, where a group of offshore oil workers discover a scary world of deadly underwater creatures. To create the special effects, Cameron turned to John Knoll, a computer graphics designer working for Industrial Light & Magic. John, in turn, enlisted the help of his brother, Thomas Knoll. Thomas was a PhD student at the University of Michigan and was working on a program to improve the display of grayscale images on monitors. John prompted his brother to turn the small application he had created into a full-fledged image-editing program for all types of color and black-and-white images. Thomas did and the program was used to help create the effects in *The Abyss*. The program became Photoshop, the most popular photo imaging application of all time.

Photoshop has all the tools you need to repair and improve images. For example, the heavy creases appearing near the bottom of the old grayscale image scanned in our example in Activity 8-4 can be fixed with Photoshop. If you are willing to spend the time, you can repair the flaws so that they do not appear when you reprint or display the image. Photoshop can make this repair with a feature called the Healing Tool seen in Digital Snapshot 8.1.



DIGITAL SNAPSHOT 8.1 Photoshop Fixes

For the record, John Knoll has worked on the special effects on a number of other movies as well: *Star Wars*, *Harry Potter*, and *Pirates of the Caribbean*. Knoll was also the visual effects supervisor on *Avatar for IMAX 3D*.

LESSON 8-2 Capture Images from a Camera to a PC

IN THIS LESSON YOU WILL

Objectives

1. Learn about the powerful features of today's digital cameras.
2. Experiment with the settings of a digital camera.
3. Take pictures with a digital camera.
4. Download digital images to a PC from a camera.
5. Analyze picture file size and resolution.
6. Manipulate photos using Photo Gallery.

Key Terms

digital zoom
liquid crystal displays (LCDs)
megapixels
optical zoom

SNAP, SNAP, SNAP



Wavebreakmedia Ltd/Shutterstock.com

FIGURE 8-25 Taking pictures has become a worldwide passion.

It seems as though everyone has a camera nowadays. People are snapping photos with a phone, a disposable camera, or a digital camera. Many full-featured digital cameras capture both still photos and video. You will need to get these images out of your imaging tools and into your PC so you can use them in your digital communications, both on the Web and in print.

In the past, cameras used film. When the shutter opened, light exposed the film and the image was captured. The film was developed with strong toxic chemicals, but the developing process produced extremely high-quality images.

Early digital cameras had a hard time competing with the quality of film. Digital cameras were scoffed at because of their terrible resolution, which yielded very poor picture quality.

MANY MARVELOUS MEGAPIXELS

Digital cameras quickly improved during the 1990s. Digital camera resolution is measured in **megapixels**. *Mega* means a million, and *pixels* describes the little dots of color explained in Lesson 8-1. The greater the number of pixels, the higher the resolution. Early digital cameras, especially those found on early cell phones, captured images at a rate of only 1 or 2 megapixels. At that rate, picture resolution and image quality were poor.

Today, inexpensive 8-, 10-, 16- and even higher megapixel cameras are available. An 8-megapixel camera can take photos that are made up of 8,001,700 pixels. (An 8-megapixel image is 3266 × 2450 pixels in size. Multiply 3266 by 2450, and you will get 8,001,700, or 8, megapixels.)

Most 8- to 10-megapixel cameras rival the quality of film photography. This level of camera shoots images that can be printed with reasonable quality in a magazine on 8 × 11 paper. Table 8-2 gives a brief outline of the megapixels required to produce good quality photos of different sizes.

TABLE 8-2
Megapixel Picture Sizes

2-megapixel camera...	...suitable for 4 × 5 photos
4-megapixel camera...	...suitable for 5 × 8 photos
8-megapixel camera...	...suitable for 8 × 11 photos
10-megapixel camera...	...suitable for 8.5 × 13 photos
16-megapixel camera...	...suitable for 11 × 16 photos



Mario Lopes/Shutterstock.com

FIGURE 8-26 LCD Preview Screen

Digital cameras are equipped with **liquid crystal displays (LCDs)** that let you see the pictures you have taken immediately. This gives you the chance to decide whether a picture is acceptable or whether you need to shoot it again. And because digital cameras can hold hundreds of photos, it is a good idea to take a few backup shots of important subjects.

Many digital cameras today come with two types of zoom. An **optical zoom** physically adjusts the lenses and closes in on a subject without sacrificing quality. The **digital zoom** also zooms in on a subject, but image quality is sacrificed when the zoom is too "tight" (close), much the same way zooming in on a raster graphic can cause the image to dissolve. (See Figure 8-2 on page 275.)

Digital cameras can store pictures as image files on memory devices. The number of pictures that can be stored depends on the size of the memory card and the number of megapixels captured in each photo. (See Table 8-3.)

TABLE 8-3
Memory Card Capacity

	3 megapixels	5 megapixels	8 megapixels
128 MB memory card	~108 photos	~52 photos	~10 photos
256 MB memory card	~218 photos	~104 photos	~20 photos
512 MB memory card	~436 photos	~209 photos	~40 photos
1 GB memory card	~874 photos	~419 photos	~80 photos

Images saved in the camera's memory or on a memory device can be downloaded to a PC with minimal effort. Like scanners, most digital cameras let you select the file type, quality (comprehension) level, and resolution.

Decide what you are going to do with the picture before selecting these settings. If you are going to look at an image on a computer screen, post it on a website, or e-mail it to a friend, keep the file size small. However, capture as many pixels per inch as your camera will permit if you intend to print a large picture in color on expensive photographic paper.

GET TO KNOW YOUR CAMERA'S SETTINGS

Most digital cameras come with various quality option settings. If you increase the quality of the image, you will increase the megapixels, which gives you more flexibility in the size and resolution of the photo you can print. You will definitely want to have a high-resolution, many megapixel image for important shots like wedding and graduation photos. However, higher-quality images will take up more memory and increase file size, as seen in Tables 8-3 and 8-4.

You will need to experiment with your camera before deciding what quality and resolution settings will work best for a photo. To do this, take a series of photos of the same subject while changing the camera settings. It may be helpful for you (or your team) to make a log like the one shown in the table below. The entries in the sample log show the file size getting bigger as the resolution and picture quality improve. The settings on your camera may vary, so your table may look different from the sample.

TABLE 8-4
Camera Resolution Experiment

Picture #	Megapixels	File Size	Possible Picture Size
1. Leaves 001	~6	1.04 MB	2848 × 2134
2. Leaves 002	~4	815 KB	2304 × 1728
3. Leaves 003	~1	190 KB	1024 × 768

Activity 8-5 EXPERIMENT WITH YOUR CAMERA

1. As a team, work through the settings on your digital camera. Investigate the quality, resolution, or megapixel settings on your camera. Your camera may have more or fewer settings depending on its quality, price, and features.
2. Take notes of your experiment in OneNote, or start Microsoft Word and create a table that will accommodate notes about your experiment. Remember that you will be experimenting with three photographs of the same subject taken at different quality, megapixels, or resolution level with various file sizes. Adjust your table based on your camera's settings.

3. Look through the viewfinder at the subject you want to photograph. Hold the camera as still as possible, and press the shutter button.
4. Change the quality, resolution, or megapixel setting, and take your next picture. Record the settings in your table. Continue to adjust your settings. Take three photographs of the same subject at different settings depending on the resolution features of your camera.
5. Finish this project in Activity 8-6.

DOWNLOADING IMAGES TO YOUR PC

There are several ways to download—or import—images from a camera to a computer.

- The camera can be attached by a cable directly to the computer.
- The camera's memory card can be removed and read by a card reader that is built into or attached to a computer.
- The camera may have wireless capabilities.

Follow the instructions that come with your particular camera's user manual.

Activity 8-6 IMPORT YOUR IMAGES TO A PC

DigiTip

Your OS should automatically "sense" that you have connected a card reader or camera to your PC and display a screen asking you if you want to copy the pictures to your PC, as seen in Figure 8-27.



FIGURE 8-27 AutoPlay Dialog Box

1. Import your images to your PC. Steps will vary from camera to camera:
   a. If you are using a cable connection to your camera, plug the cable into your camera and into your USB or FireWire port on your PC.
   b. If you are using a card reader, connect it to your PC. Remove the memory card from your camera, and insert it into the card reader.
   c. If you are using a wireless connection, make sure you have the proper settings on both your camera and PC.
2. Pick the option that best fits your needs. Notice that there are several options. Because you are already familiar with Windows Live Photo Gallery, you can use it the same way you did when scanning. Skip to step 7.

DigiTip

If Windows doesn't automatically open and allow you to view your images, follow these steps.

3. Open the **Windows Live Photo Gallery**.
4. Choose **File** and then **Import from camera or scanner**.
5. In the Import Photos and Videos dialog box, select your camera.
6. Pick **Import**.

7. Think of and key a tag name for your three images as seen in Figure 8-28. (*Note:* Photos will then be tagged sequentially with names such as *Graduation 001*, *Graduation 002*, and *Graduation 003*.)

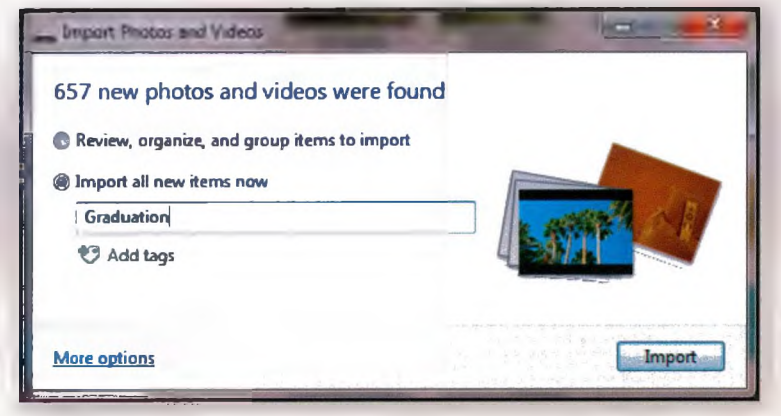


FIGURE 8-28 Tag Name for Imported Files

INSTANT MESSAGE

The main reasons to take a picture with higher megapixels are to let you enlarge the picture without losing quality and to zoom in more closely on various parts of the picture so you can see more detail.

8. Preview your images in the Windows Live Photo Gallery by choosing your tag's name and double-clicking or tapping on each photo one by one.

9. Use **Zoom** (marked in Figure 8-29) to zoom in on each of your three photos to see how changing the megapixels or resolution can change the image as you zoom in on parts of the image.

10. Choose the **View Thumbnails** button marked in Figure 8-29 to see the statistics for each photo, or choose the **Info** button to view the statistics.

11. View the statistics for each photo as marked in Figure 8-29. Record the file size and picture size for each of your three pictures. Use this information to complete the team project's table your team started in Activity 8-5. Your team needs to complete a table similar to Table 8-4 on page 293.

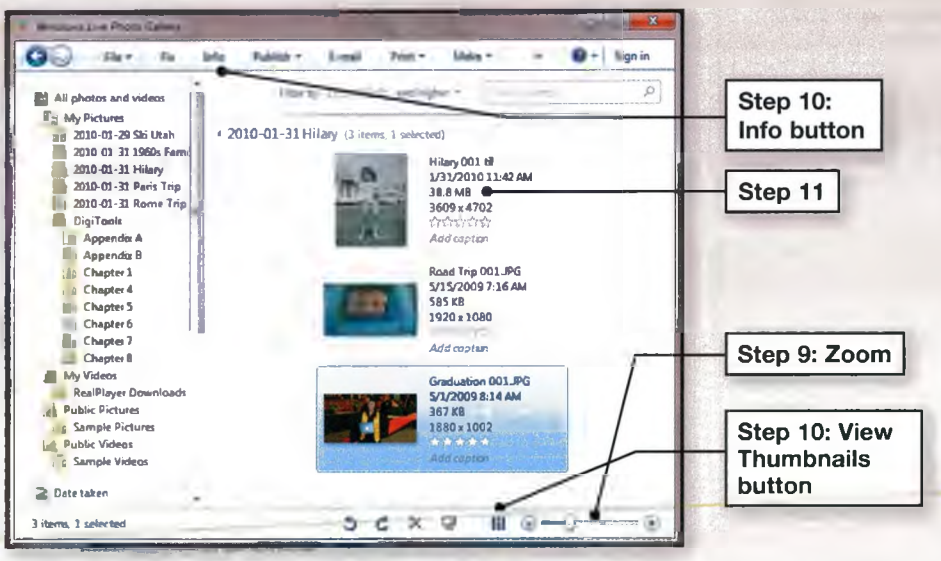


FIGURE 8-29
Image and Statistics Preview

12. Compile your team's notes into a table and save it in a file called ***Camera Settings***. Make sure each team member has a copy. Save your copy in your ***Chapter 8*** solutions folder.

1. Open the image you uploaded in Activity 8-6, and double-click on the image to open the editing window. (If necessary, use a sample picture for these steps.)
2. To improve your chosen picture, choose **Fix** (marked in Figure 8-30).
3. Choose **Crop photo**. Crop your photo. In the example in Figure 8-30, the shot is tightened to focus on the facial features in a close-up. Use the crop lines and crop handles to adjust the dimensions around the image you want to crop. Choose **Apply** to finalize your cropped selection.

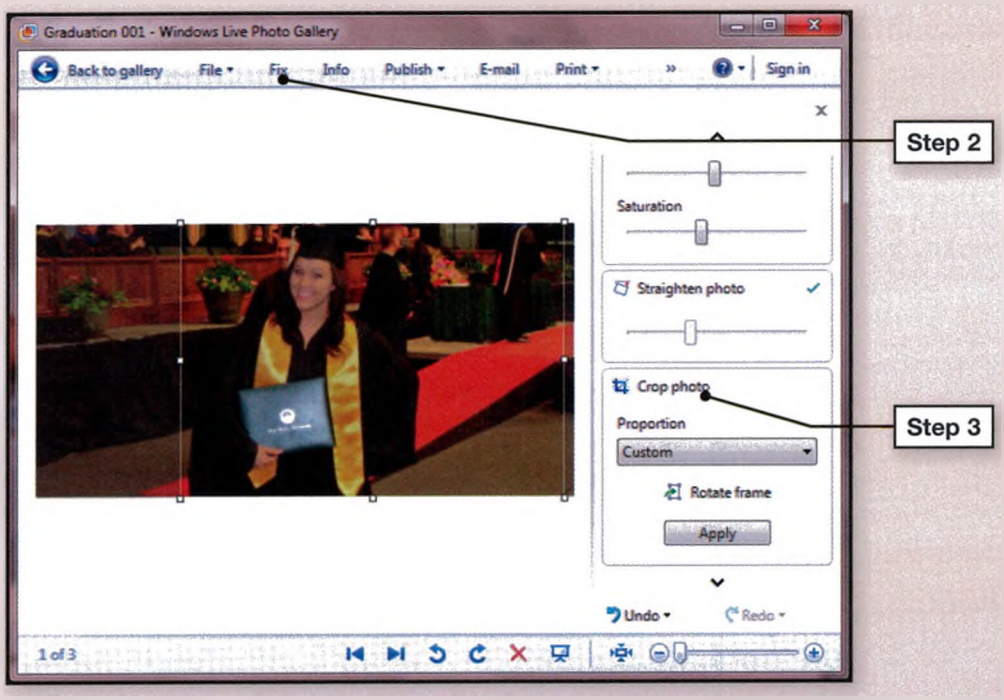


FIGURE 8-30
Image Cropping

4. Select the **Auto adjust** option. The Photo Gallery will make a few quick adjustments.
5. Choose **Adjust exposure**. Experiment with the Brightness and Contrast controls on your image. Manipulate the Shadows and Highlight level sliders too. (Use the Undo button to return to previous settings.)
6. Experiment with the Adjust Color option. Choose the **Fix** option again, followed by **Adjust color**. Manipulate the Color Temperature, Tint, and Saturation level sliders.
7. Choose the **Straighten photo** option. A grid and a slider will appear. Straighten or twist and exaggerate its angle based on how you think the image should look. Move the slider left and right to see the range of motion.
8. Return to the Windows Live Photo Gallery to view your final changes by choosing **Back to gallery**.

INSTANT MESSAGE

Restore an image to its original form by double-clicking on it, selecting Fix, and choosing Revert.

LESSON 8-3 Manipulate Graphics in Documents

IN THIS LESSON YOU WILL:

Objectives

1. Insert, size, and move graphics in a document.
2. Add styles, recolor, and add special effects to your graphics.
3. Reset pictures to original settings, switch images, and experiment with image settings.
4. Create a picture gallery.

Key Term

three-dimensional (3D)

MANIPULATING GRAPHICS

Projects are more visually appealing with images, charts, tables, and graphs. A colorful photo or drawing can catch the reader's eye and focus an audience on the message. Graphics can spice up any report, flyer, brochure, invitation, letter, press release, business card, memo, presentation, media kit—you name it.

Microsoft Office allows you to manipulate graphics in most of its applications:

- Microsoft Office Word
- Microsoft Office PowerPoint
- Microsoft Office Publisher
- Microsoft Office OneNote

In the next activity, you will learn how this is done in Word. Using Word, you will add several photographs to a media kit for the TravelView Mountain Lodge. (Review Chapter 5.) You will need to resize and position these images side-by-side on the same line. If you can do this in Word, you can use it in most of the other Office applications. Time to have some fun.

Activity 8-8 ADD AND RESIZE MULTIPLE GRAPHICS TO YOUR MEDIA KIT

1. If necessary, open Microsoft Word and a new document. Key the side heading below, as seen in Figure 8-31.
   Picture Gallery
2. Select the new **Picture Gallery** side heading. Using what you know about styles, choose an interesting style for the heading.
3. Move your insertion point below the new side heading.
4. Choose the **Insert** tab and then **Picture** in the *Illustrations* group. Browse to and open the graphic file ***1_ski*** from the data files for Chapter 8; choose **Insert**.

DigiTip

You can view your graphic's exact width and height by watching the numbers in the Height and Width boxes in the *Size* group. (See Figure 8-31.) You can also key the exact dimensions of your graphic in the *Size* group's Height and Width boxes, taking some of the guesswork out of sizing your graphics.

5. Select your graphic by clicking or tapping it. This will cause the sizing handles to appear. Touch and drag the size handle in the lower right-hand corner inward and make your graphic slightly smaller—approximately **1.8** inches in width and **2.73** inches in height.

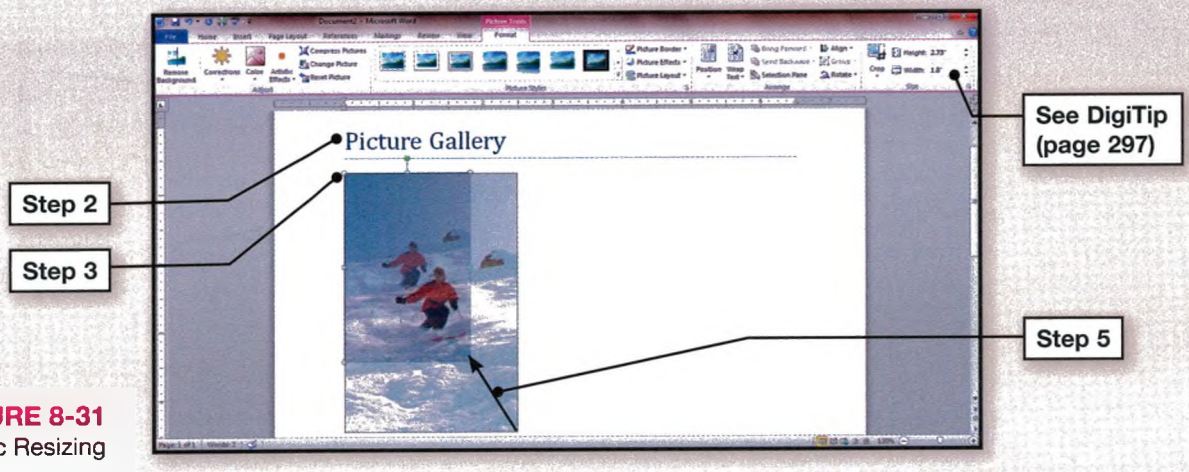


FIGURE 8-31
Graphic Resizing

6. Add three spaces after the graphic by tapping the **Space Bar** three times. This will create a small but noticeable space between this graphic and the next picture you will be inserting. (*Note:* To see the spaces, choose **Show/Hide**.)

7. Choose the **Insert** tab and then **Picture**. Browse to and select ***2_skate*** from the data files for this chapter, and then choose **Insert**. Adjust the size of this graphic so that it looks to be the same size as your first graphic (approximately **1.8** inches in width and **2.73** inches in height).

8. Add another three spaces after the second graphic before inserting a third picture.

9. Choose the **Picture** option on the Insert tab, browse to ***3_golf***, and choose **Insert**. Your document should look similar to Figure 8-32. Adjust the height and width of this graphic to approximately **1.8** inches wide and **2.73** inches high.

10. Continue adjusting the size of each picture until they look the same size and fit side by side.

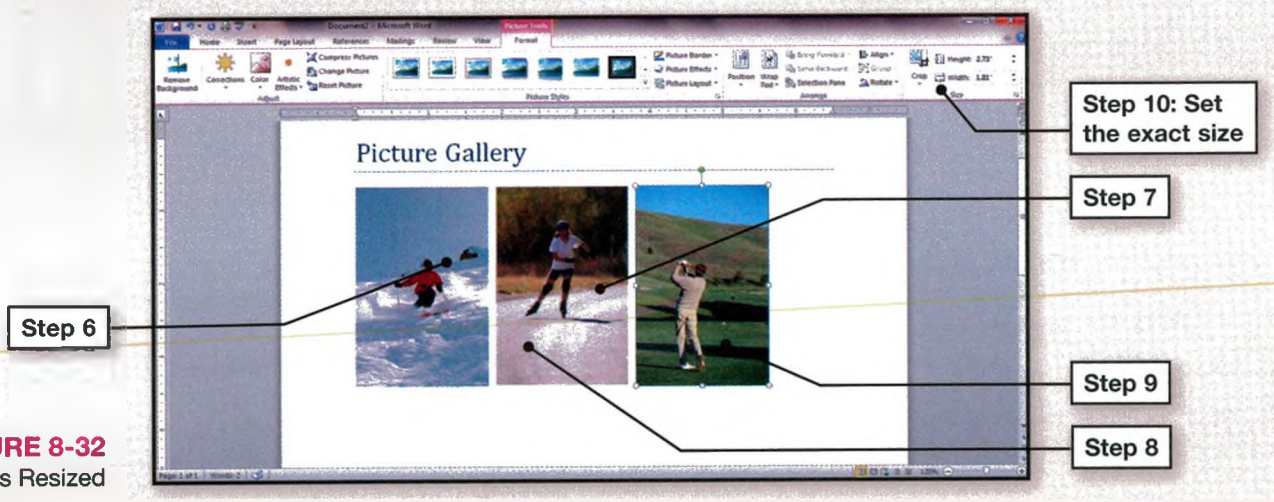


FIGURE 8-32
Graphics Resized

DigiTip

Continue resizing each picture so they fit on a single line and are the same size. To make the *Size* options appear, select a picture and then choose the **Format** tab found just below the **Picture Tools** tab.

INSTANT MESSAGE

After you move pictures around, you may need to add or delete extra spaces between them. Use the arrow keys to move between the pictures and tap the Space Bar or the Delete key as needed.

11. Change the order of your pictures by selecting one of the graphics (by clicking or tapping it) and then touching and dragging the graphic to another spot. Arrange the graphics, as shown in Figure 8-33, in the following order:
3_golf
2_skate
1_ski



FIGURE 8-33
Moving Graphics

12. Resave this new document as ***Picture Gallery 1 Size Graphics*** in your ***Chapter 8*** solutions folder. Leave this document open for the next activity.

PICTURE IT IN 3-D

You can apply styles to graphics just like you can apply styles to text. These predetermined styles can bring out the best in your pictures. Some of the styles even apply **three-dimensional (3D)** effects. Other styles are less dramatic but equally pleasing to the eye. Give picture styles a try!

Activity 8-9 APPLY PICTURE STYLES

1. If necessary, open your ***Picture Gallery 1 Size Graphics*** from your ***Chapter 8*** folder.

DigiTip

Because some of the styles applied in the next few steps may exaggerate the size of your photos, you may need to use your resizing skills to make a graphic smaller or larger.

2. Choose the first of your three pictures. This will activate the Picture Tools tab. Choose the **Format** tab to reveal the *Picture Styles* group.

3. Choose the down arrow next to the various styles to reveal the possible options. Pick a different style for each of your three photos.

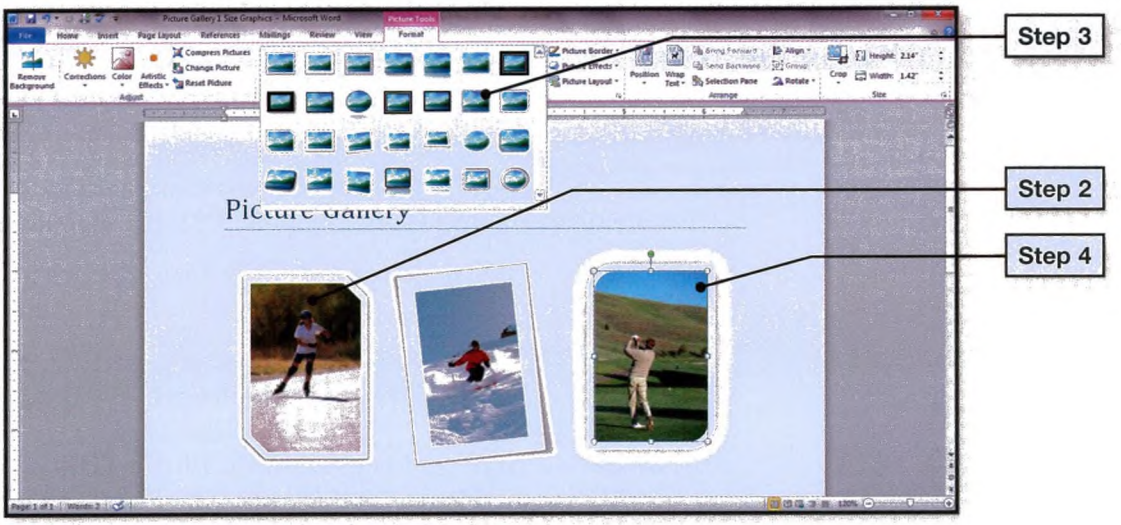


FIGURE 8-34
Preformatted Styles

4. After you have found a style you like, apply it to all three of your photographs and resize them so that they appear of equal size on the same line.

DigiTip

If you make a mistake and want to go back to your original picture, simply choose **Reset Picture** as shown in Figure 8-35.

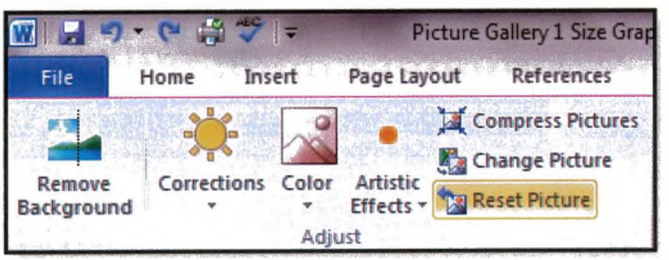


FIGURE 8-35
Reset Picture

DigiTip

There are other picture effects that you can apply. These can make your pictures take on 3-D qualities and shapes.

5. Select the first picture again. Then from the Picture Tools tab, choose **Format**. Pick **Picture Effects** followed by **Preset**. Choose one of the 3-D Preset options. Apply a 3-D preset to each of the other two photographs, as shown in Figure 8-36.



FIGURE 8-36
3-D Style Options

6. Decide on the 3-D or special effects that you like best, and change each of the three photographs to the same style, preset, and size.
7. Save this new document as ***Picture Gallery 2 Picture Styles*** in your Chapter 8 folder, and leave it open for the next activity.

ADJUSTING THE CONTRAST, BRIGHTNESS, AND COLOR VARIATION

In the next few activities, use your creativity to improve the look of your images. Microsoft Word provides many helpful tools for you to do this, such as the brightness and contrast settings. You can also change the color of your pictures and apply a variety of interesting light variations. (For more information on each of these, read *Digital Snapshot: Image Exposure and Color* on page 286.)

Activity 8-10 RECOLOR YOUR GRAPHICS

1. If necessary, open your ***Picture Gallery 2 Picture Styles*** file from your Chapter 8 folder.
2. Choose one of your pictures, and select the **Format** tab below the Picture Tools tab.
3. From the *Picture Tools* group, choose **Color** (in Word 2010) or **Recolor** (in Word 2007).
4. Apply one of the Light Variations styles pictured in Figure 8-37.
5. Apply different light variation styles to the other two pictures.

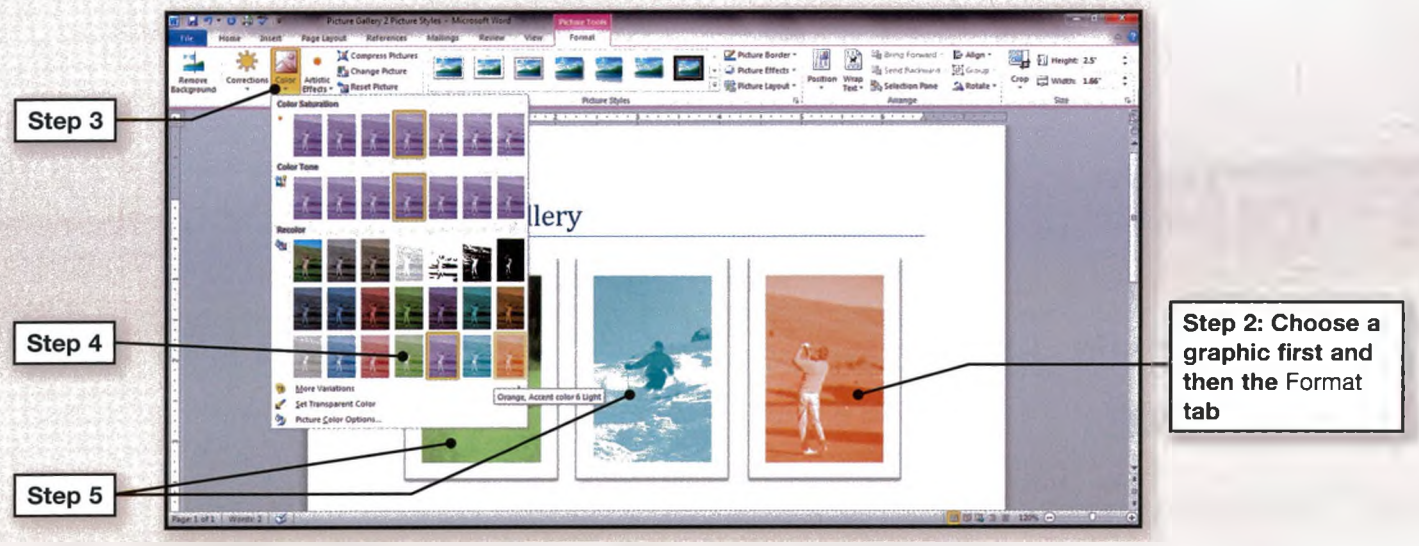


FIGURE 8-37 Recolor Style Options

DigiTip

Sometimes images can become too dark, grainy, or washed out. You can solve this problem by adjusting both the brightness and contrast settings. However, it is best not to exaggerate the contrast and brightness levels. Usually, only slight changes are necessary to get the desired result, such as 10% lighter or 20% darker. Experiment and see which settings look best for your photo.

6. Select one of your photographs; then choose the **Picture Tools**, and select **Corrections** followed by a corrected Brightness and Contrast style that enhances the image, as seen in Figure 8-38. (In Windows 2007, choose **Contrast** from the *Picture Tools* group.)



FIGURE 8-38
Brightness and Contrast Controls

7. Save this new document as ***Picture Gallery 3 Light Variations*** in your ***Chapter 8*** folder, and leave it open for the next activity.

RESET, SWITCH OUT, AND EXPERIMENT WITH YOUR GRAPHICS

This exercise will give you a chance to experiment further with your photographs and apply styles that *you* find intriguing. Experimenting with your photos is the best way to learn how these multimedia publishing tools work.

Activity 8-11 EXPERIMENTING WITH GRAPHICS

DigiTip

Sometimes you will need to substitute pictures. Do so in the next series of steps.

1. If necessary, open ***Picture Gallery 3 Light Variations*** from your ***Chapter 8*** folder.
2. Select each of your images one by one, and restore them with **Reset Picture**, as seen in Figure 8-35.
3. Select the picture of the golfer (***1_golf***), and then choose **Change Picture** from the *Picture Tools* group.
4. Browse to the picture ***4_canoe***, select it, and click **Insert**. The picture of the golfer will be replaced by the picture of the canoeists seen in Figure 8-39.

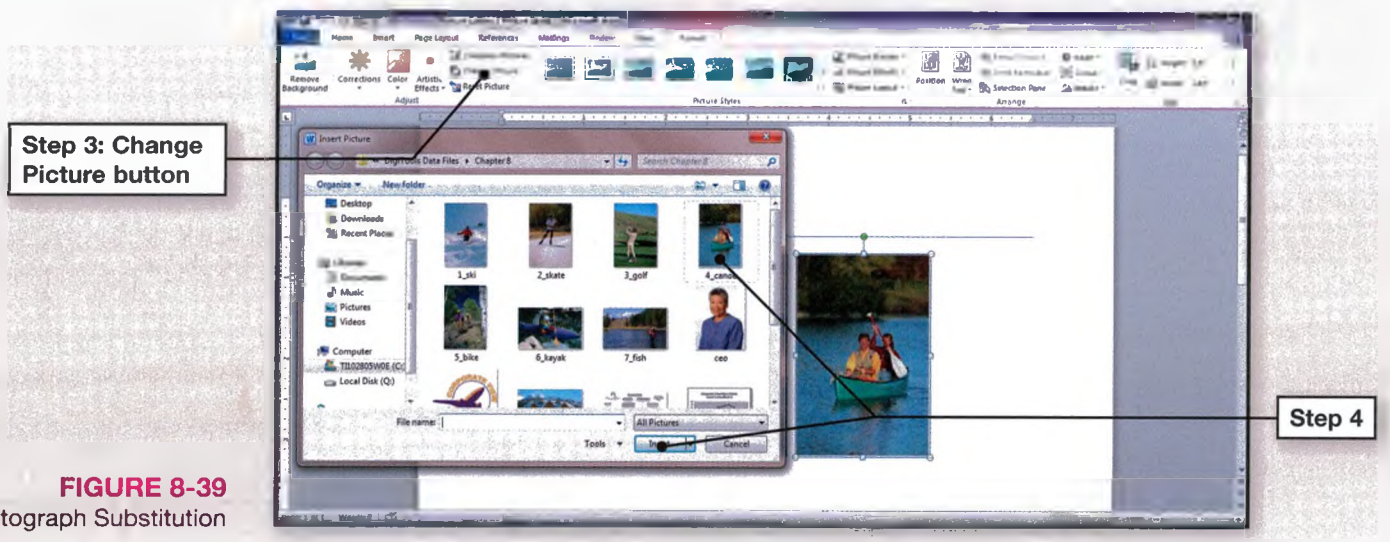


FIGURE 8-39
Photograph Substitution

DigiTip

Pictures can be positioned in both portrait and landscape modes. The first three photographs are in portrait mode, which means they are higher than they are wide. Portrait mode is perfect for showing people in action situations. The alternative is called landscape. This mode is often used to show countryside or mountain landscapes or to show an image like the kayak in Figure 8-40, all of which are wider than they are high.

5. Tap the **Enter** key at the end of the canoeing picture, and then insert the following pictures: ***5_bike***, ***6_kayak***, ***7_fish***.

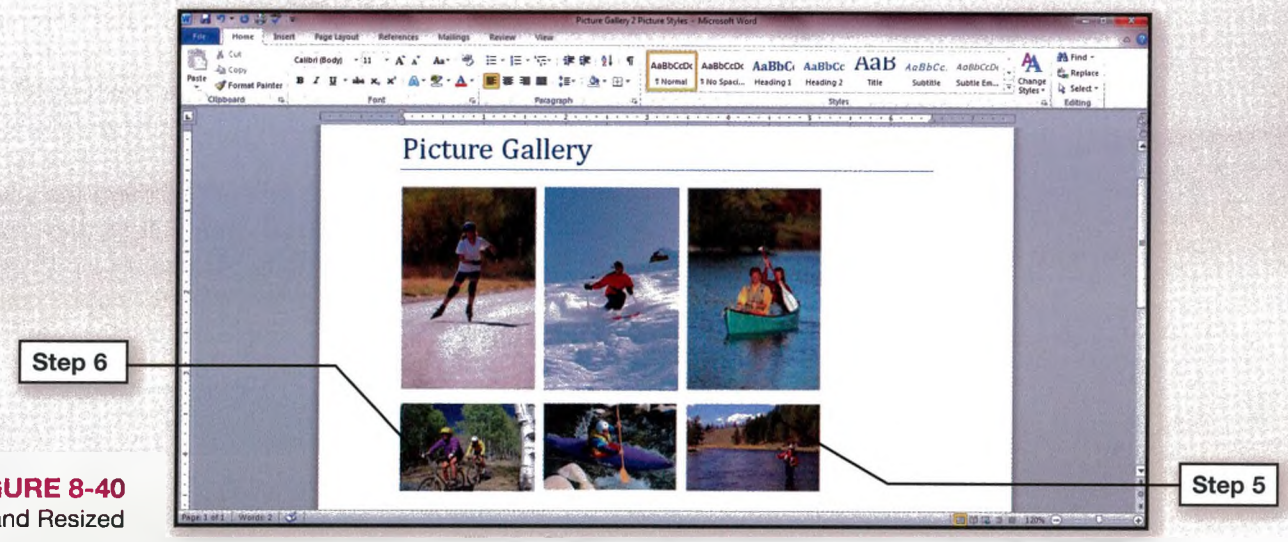


FIGURE 8-40
Photos Added and Resized

6. Resize each of the images so they appear as seen in Figure 8-40. Place spaces between the photographs so there seems to be a margin or frame between each photo.

DigiTip

Don't be afraid to move images around or to reshape them. Also, try features you have not tried before. For example, in Figure 8-41, the Picture Effects option Glow is about to be applied from the *Glow Variations* section of the gallery. Remember, if you do not like how an effect works, you can simply choose your picture again and set it back to normal by selecting Reset Picture.

7. Play with your images. Be creative. What can you create with the tools you have learned so far? What new tools would you like to try? Do you want to rearrange your images? It is okay to do so.

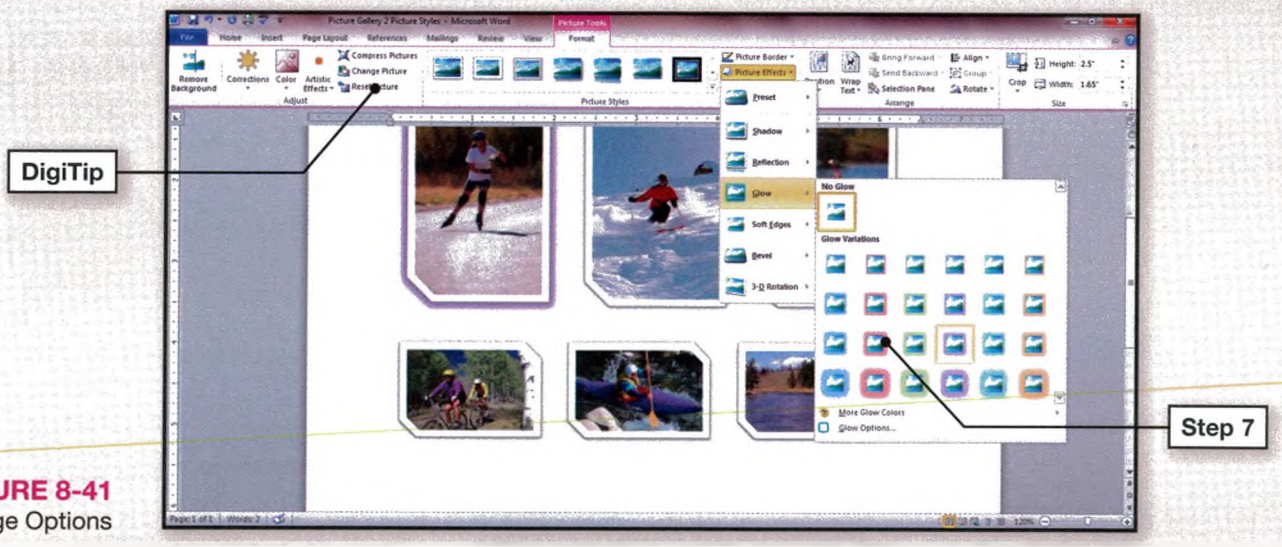


FIGURE 8-41
Image Options

8. Save your final changes as ***Picture Gallery 4 Image Experiment*** in your ***Chapter 8*** folder, and then close it and close Word.

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 8-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools*.

Building Up: Your Math Skills

Exercise 8-2 STOCK THE SPORTS SHOP

1. You are the manager of mountain bike sales for the sports shop in the TravelView Mountain Lodge. You have decided to stock a low-end-model mountain bike that tourists may want to use. Each new bike costs $100 from the manufacturer. The store manager has told you that you must price the mountain bike so it has a 30 percent gross profit. How much will the selling price of the new bicycle be?
2. The hottest-selling running shoes currently retail for $79.99, and each pair costs the TravelView Lodge's sports store $50.00. What is the gross profit percentage for this shoe? Round to the nearest whole percent. The store manager expects a 50 percent gross profit on all shoes. Does this shoe meet his criteria? Explain.
3. You are a purchasing agent for a clothing store. You have been asked to purchase a line of workout shirts with the TravelView Mountain Lodge logo. Your experience tells you that the most you can sell the shirts for is $15.99. The store manager requires a 40 percent profit on all logo wear. What is the highest purchase price you can pay for the shirts to meet the 40 percent gross profit?
4. Save your work as ***Exercise 8-2*** in your ***Chapter 8*** solutions folder.

Building Up: Your Language Arts Skills

Exercise 8-3 FROM THE EDITOR'S DESK: CONFUSING USAGE

1. Open your browser software. Use the bookmark in your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications > From the Editor's Desk**.)

2. Choose the **Confusing Usage: Two, To, Too; Compliment, Complement; A, An** link. Copy and paste the questions to a word processing document, and answer the questions. (Read the information provided on the Web page, and follow the directions for completing this practice exercise.)

3. Check your answers by comparing them with the answers on the bottom of the intranet page.

4. Save your work in your solutions folder as ***Exercise 8-3 Confusing Usage***.

Career Clusters



Agriculture, Food, & Natural Resources

Do you like plants, animals, or minerals? If so, a career in this cluster may be for you.

Workers in agriculture, food, and natural resources careers help provide clothing, heat, light, food, and other essential services for us all. Workers in this area may grow corn in Nebraska, raise fish in Mississippi, or tend tomatoes in California. They may harvest trees in Maine, mine coal in West Virginia, or discover new oil reserves in Wyoming.

Newer areas in the natural resources cluster involve biotechnology, environmental conservation, and agricultural and mining science. Table 8-5 reviews jobs and potential salaries in this highly varied career cluster.

Position and Yearly Salary		Position and Yearly Salary	
Agricultural Inspector	$31,033	Supervisor/Manager of Mining Operations	$55,430
Greenhouse Worker	$16,730	Hazardous Material Remover	$33,321
Forest and Conservation Technician	$27,331	Rotary Drill Operator (Oil and Gas)	$36,640
Logging Worker	$29,723	Continuous Mining Machine Operator	$34,320
Farm Labor	$17,730	Bioagricultural Engineer	$64,330
Mining and Geological Engineer/ Mining Safety Engineer	$64,370	Agricultural and Food Scientist	$50,840
Environmental Scientist	$50,700	Biological Technician	$33,030
Landscaper	$20,880	Landscape Architect	$53,640
Environmental Engineer	$64,330	Veterinarian	$66,150

TABLE 8-5 Career Cluster: Agriculture, Food, & Natural Resources

Most pathways in this cluster require considerable education. Colleges and universities offer degrees in such unique topics as these:

- Agricultural Science
- Conservation and Environmental Science
- Landscape Architecture and Horticulture
- Mining and Geology
- Veterinary Science

Exercise 8-4 RESEARCH EDUCATIONAL DEGREES

1. Work as a team, and have each team member choose a different career from cluster on the previous page.
2. For each career, research a school, university, college, or technical training center that provides education and does research in that area. To find information, use a search engine such as Google (www.google.com) or Microsoft Bing (www.bing.com). Use the name of the career and the words *education*, *research*, *degrees*, or *training* as the search terms (for example: *veterinary science degrees*).

   Hint: Start close to home. Visit the websites of universities, technical schools, and colleges in your community or state. Discover whether they have programs related to any of these careers. Then expand to other states as necessary.
3. In your notes, write a short one-page summary of each school and explain what it offers for students earning degrees in this cluster. Note the source information (author's name if given, website name, URL, and date you accessed the site) for each website you use in your summary.
4. Save your short description as ***Exercise 8-4*** in your ***Chapter 8*** folder.

21st-Century Skills

Productivity and Initiative

Exercise 8-5 SNIPPING YOUR SCREEN

One day you will be working online and you will run across an image that you need for a school report, for a website, or for a graphic for an on-the-job presentation. You may be in a hurry to get the report or presentation done and need to turn an image on your screen into a graphic. This is where snipping comes in handy. Microsoft Windows 7 has a quick and easy tool to get that image on your screen into your report or presentation. It is called the Snipping Tool.

If you have something on your screen that you want to turn into an image for your documents, use the Snipping Tool by following these steps:

1. Bring to the screen the image or document you wish to capture.
2. Choose **Start** > **All Programs** > **Accessories** > **Snipping Tool**. Your screen will take on a frosted look.
3. Pick the **Capture** option from the **New** button's down arrow found on the Snipping toolbar. For most images, you will use the Rectangle Snip, but you can also capture the entire screen, capture any open window, or draw a shape around the image with the free-form snip option.
4. Click and drag over the area you want to snip. When you release the mouse button, the image is ready to be saved.

INSTANT MESSAGE

Don't forget that copyright laws and citation rules apply to images as much as they apply to words. Professional images may not be used without written permission. If you are unsure about copyright restrictions, discuss your images choices with your instructor.

5. Practice snipping three screen images so you are comfortable with the process should you ever need an image from your screen. Save your images in a .jpg format. Name them ***snip1***, ***snip2***, and ***snip 3***, and place these practice images in your ***Chapter 8*** folder.

Communication and Collaboration

Exercise 8-6 ADD YOUR PICTURE GALLERY TO YOUR MEDIA KIT

It is important to use images to improve your communications. In Chapter 5, you created a media kit. But it was all text! You can sell your products and ideas much better if you add some images. Improve the media kit with the images used in this chapter.

1. Open ***Media Kit 4 Add Table*** from your ***Chapter 5*** solutions folder.
2. Scroll to the bottom of your document, and insert a page break so you can begin fresh on the next page. (*Note:* Choose **Page Break** on the **Insert** tab's *Pages* group.)
3. Reopen ***Picture Gallery 4 Image Experiment*** from your ***Chapter 8*** solutions folder.
4. Copy all of the text and images from ***Picture Gallery 4 Image Experiment***. (*Hint:* Use **Ctrl + A** to Select All. This is a handy shortcut and will make certain that you get everything you want to copy.)
5. Switch to ***Media Kit 4 Add Table***, move to your newly created second page, and Paste the text and images. (*Hint:* Use **Ctrl + V** to Paste.)
6. Adjust the style formatting of your side headings so that the same side heading style is used throughout the document.
7. Resave your media kit as ***Media Kit 5 Add Picture Gallery*** in your ***Chapter 8*** solutions folder.

Initiative and Self-Direction

Exercise 8-7 PRESERVE AND SHARE YOUR PERSONAL PHOTOS ONLINE

It is time to put all of your personal photos online. This is a great way to keep them safe and share them with family members and friends. Use Picasa, Windows Live Photo Gallery, Adobe Photoshop online, or another online photo service.

1. Study your online photo storage options. Research Google, Bing, and Adobe online photo storage and sharing options.
2. Pick the option that best fits your needs and budget.
3. Upload your precious photos online, and create a photo gallery to share with family and friends.
4. As you share your images with teammates, share individual stories about your family's past.

Chapter 9

Desktop Publishing Skills

Lesson 9-1 Introducing Desktop Publishing
Lesson 9-2 Applying Clip Art and Element Priorities
Lesson 9-3 Creating Practical Publications with Publisher

DESKTOP PUBLISHING ALTERNATIVES



iStockphoto.com/IZ11947

FIGURE 9-1 Business and government documents need to be professionally published.

All businesses and government agencies need high-quality documents to promote their products and programs. Important documents must have a professional look and feel. Desktop publishing (DTP) software is the preferred choice to create these types of documents. However, few people are skilled at using DTP software. In this chapter, you will learn to dress up your publications by adding interesting desktop publishing elements with user-friendly templates, impressive graphics, and word art.

Desktop publishing is not limited to printed documents. With the release in 2007 of the Amazon Kindle, the first popular electronic book (e-book) reader, publishers now must produce books that are readable online as well as in print. The Kindle quickly had competition, primarily the Apple iPad. The iPad has apps that allow users to read books online. Google, Microsoft, and HP have also created new tablet devices and apps that display e-books. (See Figure 9-2.) Additionally, smart phones can serve as e-book readers through the downloading of an e-reader app. The same is true for laptop computers. Online publishing is big business now. With regard to DTP, online publishing is an added consideration.



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AP Photo/Mark Lennihan

FIGURE 9-2 DigiTools like the iPad and smart phones are great e-book readers.

The *Eight Keys of Dynamic Digital Communication* apply to both electronic and print documents. DTP software helps most with readability, style, accessibility, and the visual appeal of your message. Review Keys 6 and 7 in Table 9-1. (Review all eight keys on page 117 in Chapter 4.)

TABLE 9-1
Two of the Eight Keys of Dynamic Digital Communication

6	Readability, Style, & Personality	Present your message in a way that is easy to read, follow, and understand. Use an appropriate personality, style, voice, or attitude in your writing projects and presentations.
7	Accessibility & Visual Appeal	Make the most important information the most accessible or the easiest to find. This may be done with formatting, hyperlinks, tables, bulleted and number lists, and the careful use of headings, among other methods. Supply any visual information that will add to the message.

You have many DTP software choices. Some of the major desktop publishing applications today are as follows:

- Adobe InDesign
- Adobe PageMaker
- QuarkXPress
- Adobe FrameMaker
- Greenstreet Publisher
- iStudio Publisher
- Microsoft Publisher
- PagePlus
- Print Shop
- Ventura Publisher (owned by Corel)

Fortunately, if you can use any of these applications, you will have a head start on learning other DTP applications. The concepts are similar. To get started, in this chapter, we will focus on Publisher, Microsoft's entry into the DTP world. (Publisher is not a part of Microsoft Office for Apple computers.)

LESSON 9-1 Introducing Desktop Publishing

IN THIS LESSON YOU WILL:

Objectives

1. Create a flyer using Microsoft Publisher.
2. Find, download, and use a DTP template.
3. Key text and data.
4. Add, move, and resize images.
5. Apply new color, font, and background schemes.

Key Terms

elements
objects
thumbnails

BEGINNING WITH MICROSOFT PUBLISHER

You can do a lot of desktop publishing in Microsoft Word. But if you need to take your documents up a level artistically and visually, Microsoft Publisher may be the tool for you.

There is a big difference between a DTP application like Publisher and a word processing program like Word. In word processing, document **elements** (also called **objects**) can run into each other. An element can be a block of text or a chart, table, graphic, picture, footer, or header. It is hard to control the exact position of each element on the page.

DTP apps organize elements differently than word processing apps do. With DTP, each element appears in a box of its own. Each box contains an object that can be moved, resized, and placed precisely where you want it, as seen in Figure 9-3. Elements come in all shapes and sizes and can be used for multiple purposes. Some elements are graphics or images, some contain text, and some provide shading and background for other elements.

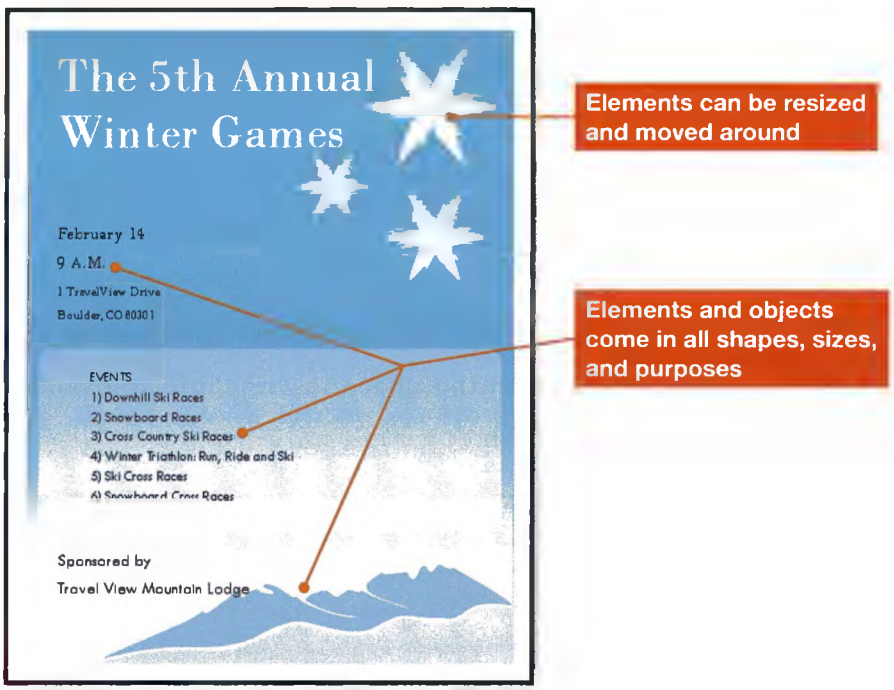


FIGURE 9-3
Publication Elements

DTP software is fun to use and is easier to learn than ever before. However, one caution is called for before you jump into DTP: consider your selections carefully. Some people emphasize glitz over elegance, splash over substance, and clutter over clarity. Many publishers bombard their audience with overwhelming graphics, bizarre color choices, and incongruent designs. While making your documents visually appealing is very important, your message must still be presented clearly. After all, you don't want your audience to get lost when reading the page.

Activity 9-1 USE A TEMPLATE TO CREATE A FLYER

1. Open Microsoft Publisher.
2. If necessary, select **File** > **New**.
3. To view the maximum number of choices, click the **Installed and Online Templates** category as seen in Figure 9-4.

4. Key **Flyers** in the search box, and click the **Search** icon or tap **Enter**. (See Figure 9-4.)

Watch the Video
Go to the video for this lesson.

A video illustrating how to perform the skills in this lesson is available from your instructor or online at: www.cengage.com/school/keyboarding/digitools.

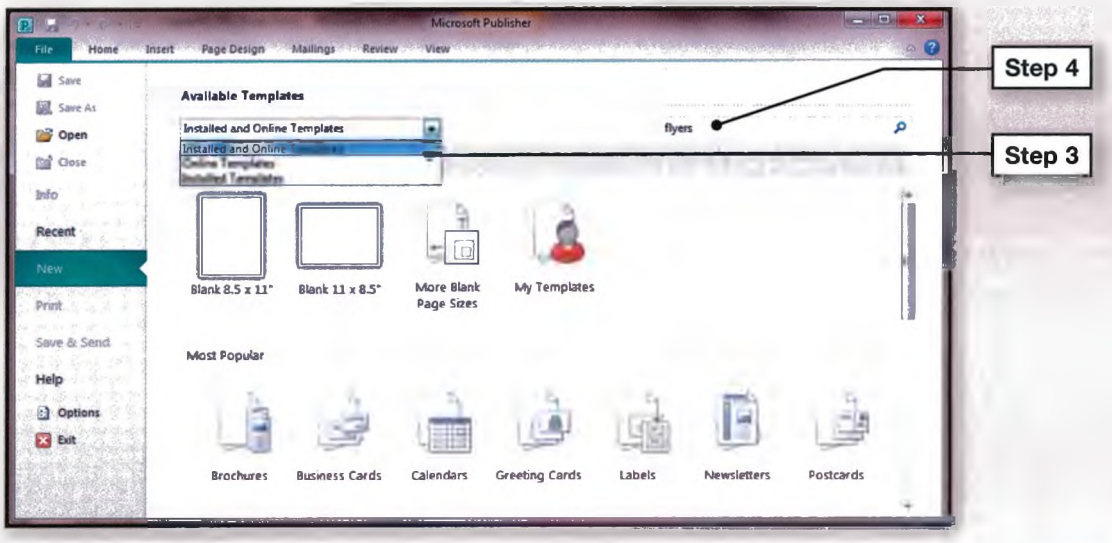


FIGURE 9-4
Available Templates

DigiTip

You may not see all the choices shown in Figure 9-5. If you are not online, your choices will be limited. If you are online and your program has been set to look for Installed and Online Templates, you will have many more options. Also, new templates are added all the time, so you may see some new ones, which is exciting!

5. Read the DigiTip above and scroll through all the options using the scroll bar.

6. When you see a template you like, click on its thumbnail (small image). You will now see a bigger, more detailed image in the right-side panel as shown in Figure 9-5.

INSTANT MESSAGE

When accessing new document templates in Backstage from the File menu, you will see **thumbnails** as shown in Figure 9-5. Thumbnails are image previews that allow you to better see what you are picking before you make a selection.

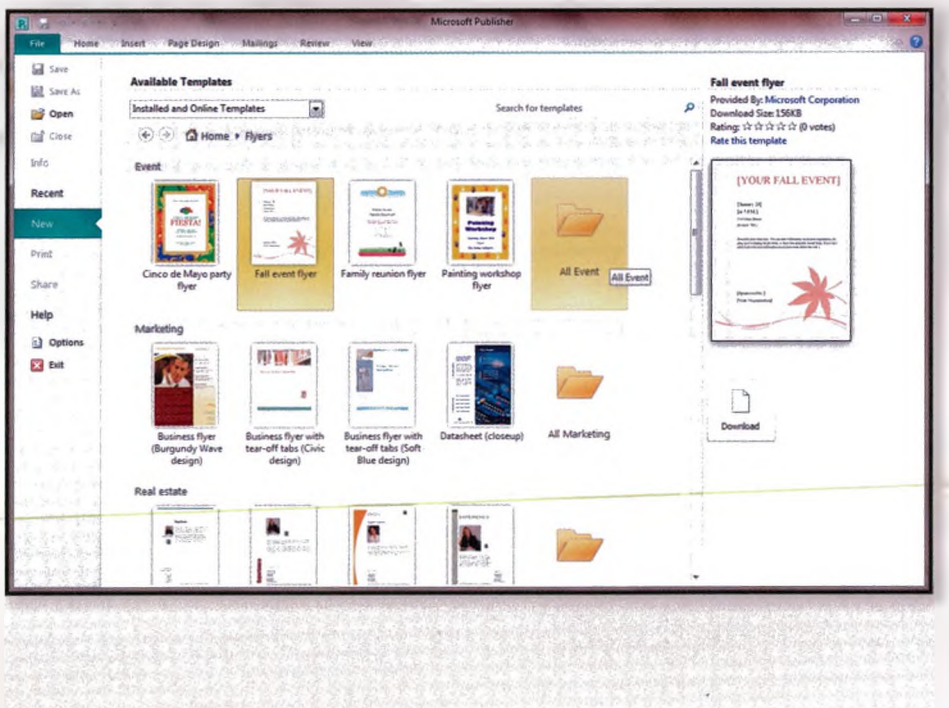


FIGURE 9-5
Event Flyer Templates

For this activity, we are using a template called ***Winter event flyer***. If you want to use this template, key **Winter event flyer** in the search box and tap **Enter**, as you did in step 4. If you want to use another template that you like better, feel free to do so.

7. Select the **Winter event flyer** template or another option that catches your interest. (See Figure 9-6.)

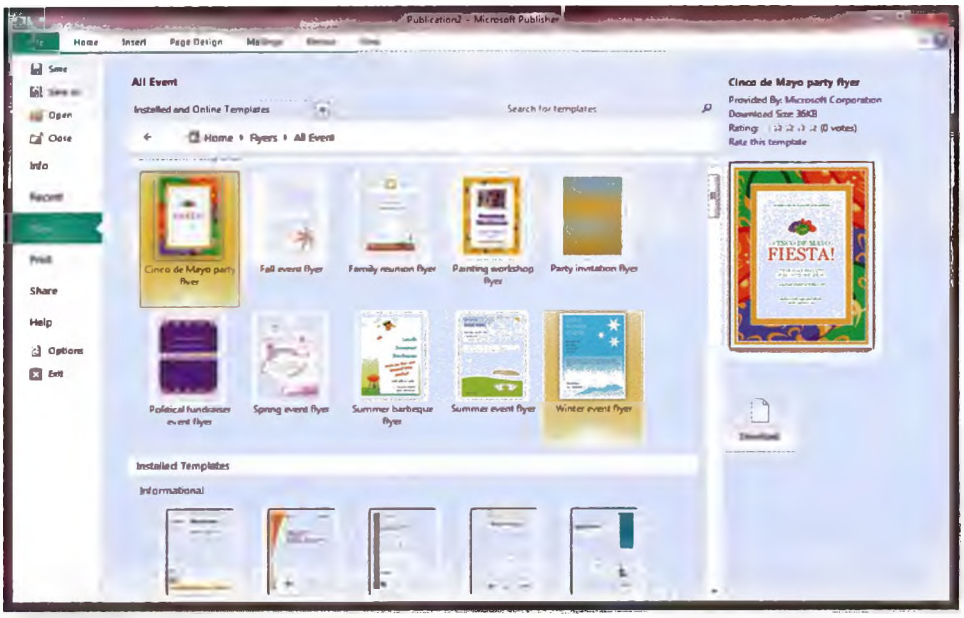


FIGURE 9-6
Event Flyer Template Selection

In a DTP application, each element appears in a box of its own. Each box can be moved, resized, and placed precisely where you want it.

8. You may want to use the Zoom feature to make the text and page appear larger on the screen. (See Figure 9-7.)

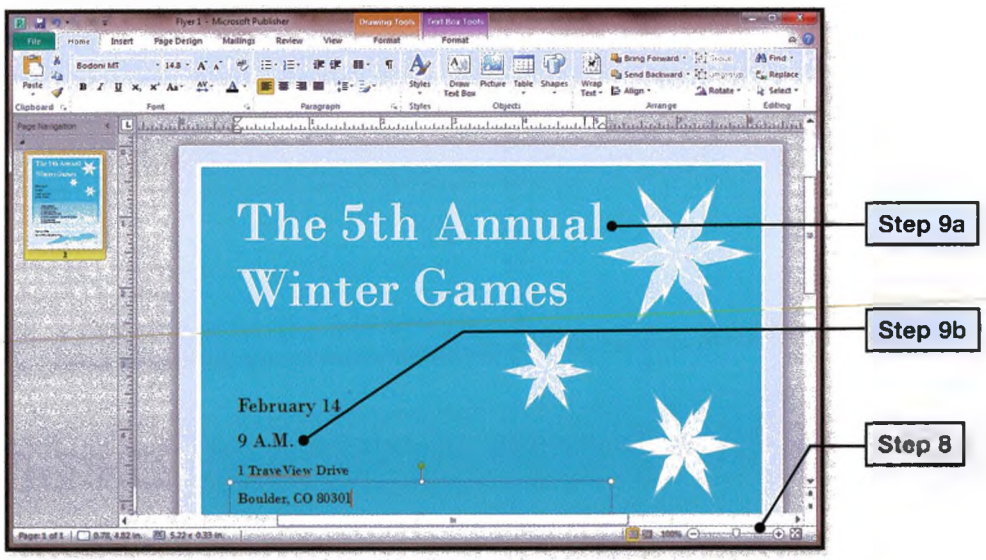


FIGURE 9-7
Personalized Event Flyer

9. Make a flyer that includes the following information:
   a. Name your event **The 5th Annual Winter Games**.
   b. Include the date, race start time, and address:
      February 14
      9 A.M.
      1 TravelView Drive
      Boulder, CO 80301
   c. Key the following list of events:
      EVENTS
      1) Downhill Ski Races
      2) Snowboard Races
      3) Cross Country Ski Races
      4) Winter Triathlon: Run, Ride, and Ski
      5) Ski Cross Races
      6) Snowboard Cross Races
10. Identify the sponsor of the event as the **TravelView Mountain Lodge**.
11. Save your Publisher document with the name ***Flyer 1*** in your ***Chapter 9*** solutions folder, and leave it open for the next activity.

ADDING AN IMAGE TO A PUBLICATION

You need to add an image to the flyer, but the flyer is already full of images and text. To open up a space for an image may require deleting existing elements, objects, or images. In this case, you do not want to delete any of the text; so remove one of the images (a snowflake) instead. With it out of the way, you will have room to insert an image of your choosing.

Activity 9-2 DELETING, ADDING, AND POSITIONING AN IMAGE

1. Open Microsoft Publisher and your ***Flyer 1*** document if necessary.
2. Select the snowflake element by clicking on its box; then tap the **Delete** key. (If you have chosen some other template, use the same process to delete an element, if necessary, to make room for an image.)

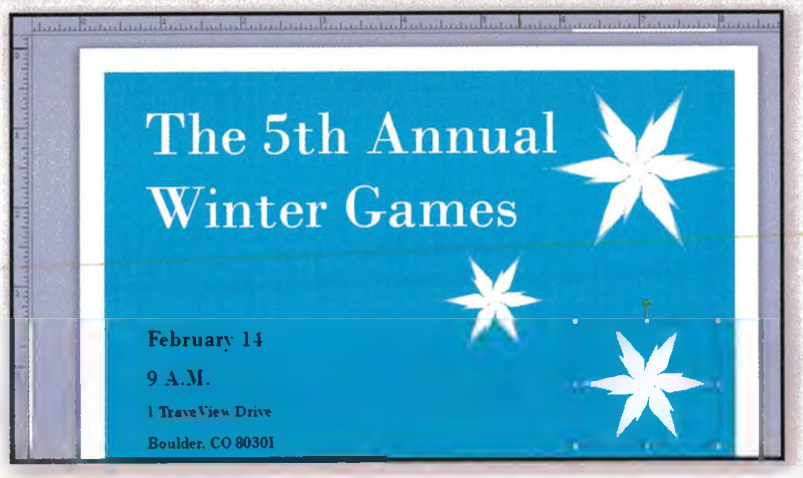


FIGURE 9-8
Element Selection for Deletion

In Chapter 8, you learned about images. In this activity, you can make good use of those images. Your ***Chapter 9*** data files folder also contains images you can use for practice purposes, but use your own images where they fit the theme. You may want to review Chapter 8 to learn how to position and add styles to images in documents.

3. Choose **Picture** from the *Objects* group on the Home tab (or from the *Illustrations* group on the Insert tab). Browse to locate an image of your choosing. If you need an image to practice with, go to the ***Chapter 9*** data files folder and use the ***1_Ski*** file. You also can use an image that you saved in Chapter 8 or find another image of your choosing. When you have selected an image, tap **Insert**.
4. Resize and position your image by dragging it by its handles, as seen in Figure 9-9.



FIGURE 9-9
Image Element Inserted

5. Apply styles and effects to your image as you learned to do in Chapter 8. In Figure 9-10, a style was added by selecting the image first and then picking options from the Picture Styles in the Picture Tools Format tab.
6. Change the theme color scheme for your publication by selecting the **Page Design** tab and picking a color scheme from the *Schemes* group as seen in Figure 9-11.

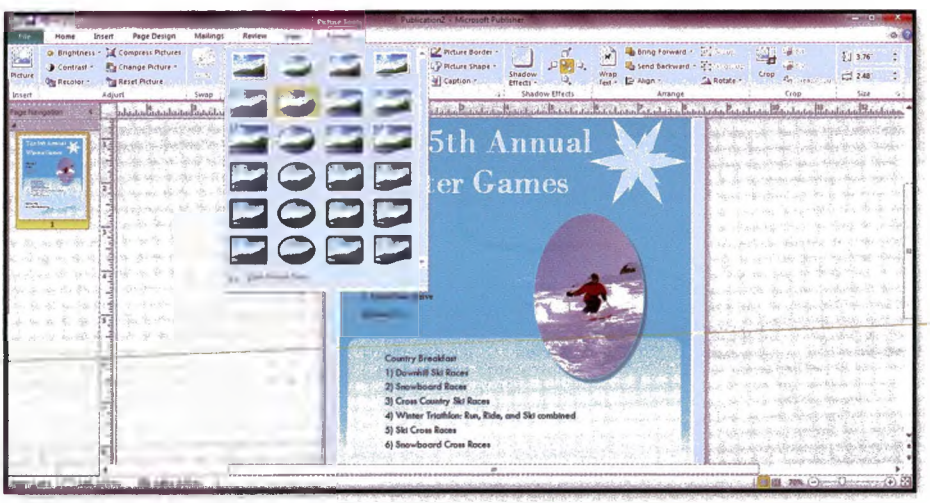


FIGURE 9-10 Image Styles

7. Change the font scheme by picking the **Page Design** tab and selecting the **Fonts** button from the *Schemes* group. Select a font style that enhances the look of your flyer. (*Note:* Generally, you will want to choose a sans serif font as explained in *Digital Snapshot: Serif vs. Sans Serif Fonts* on page 131 in Chapter 4.)
8. You may need to adjust the font size of your text if it is too large for the text box and a word is hyphenated, as seen in Figure 9-11. To make the fix, select the text in the text box, click the **Home** tab, and click the **Decrease Font Size** button from the *Font* group.

9. Adjust the background by clicking the **Page Design** tab and the **Background** button from the *Page Background* group. In our template, only a small portion of the background is showing around the edge, which will make a subtle change to the background border of the publication as marked in Figure 9-11. If your template/design has more of the background showing, changes might be more noticeable.

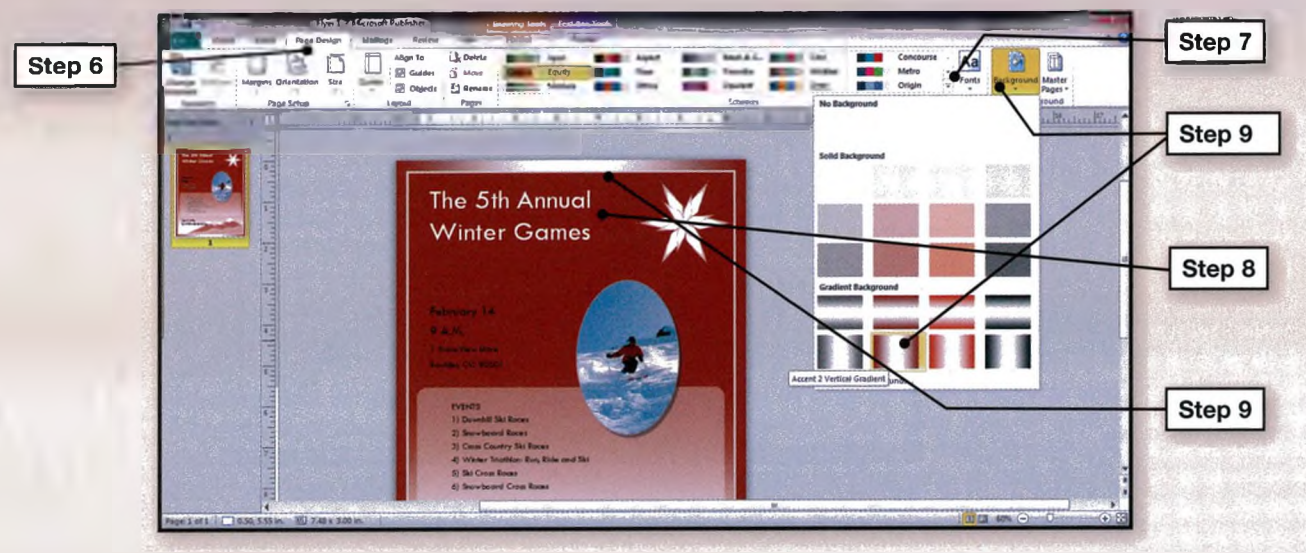


FIGURE 9-11 Color, Font, and Background Schemes

10. Resave your updated publication file as ***Flyer 1*** in your ***Chapter 9*** solutions folder.
11. Close the publication file.

LESSON 9-2 Applying Clip Art and Element Priorities

IN THIS LESSON YOU WILL:

Objectives

1. Manipulate the prominence of image elements with the Send Back and Send Forward features.
2. Find and manipulate clip art.
3. Select from solid color or gradient background options.
4. Use WordArt.
5. Create and edit text boxes, shapes, and shadows.

Key Terms

clip art
gradient
prominence
WordArt

FIND AND POSITION CLIP ART

You can mix photos and other image elements in any DTP document. For instance, any of the images you created and modified in Chapter 8 can be used in a DTP publication. You can also go online and download copyright-free images. Or you can use Microsoft's free clip-art collection. You will learn how to find online clip art in Activity 9-3.

You can use multiple image elements on the same pages. However, once you start to mix elements, you run the risk of overlapping and covering up one element with another, as seen in Figure 9-12.

When pictures overlap, you have to set a priority for each. By using the Bring Forward or Send Backward options, you can prioritize the **prominence** of an image. Prominence means moving an image backward or forward, much like stacking photos on top of each other.

INSTANT MESSAGE

There is a difference between *Send Backward* and *Send Back*. Send Backward takes the selected image and moves it behind the image below it. Send Back moves an image behind all of the images. The same concept applies in reverse with the *Bring Forward* and *Bring to Front* commands.

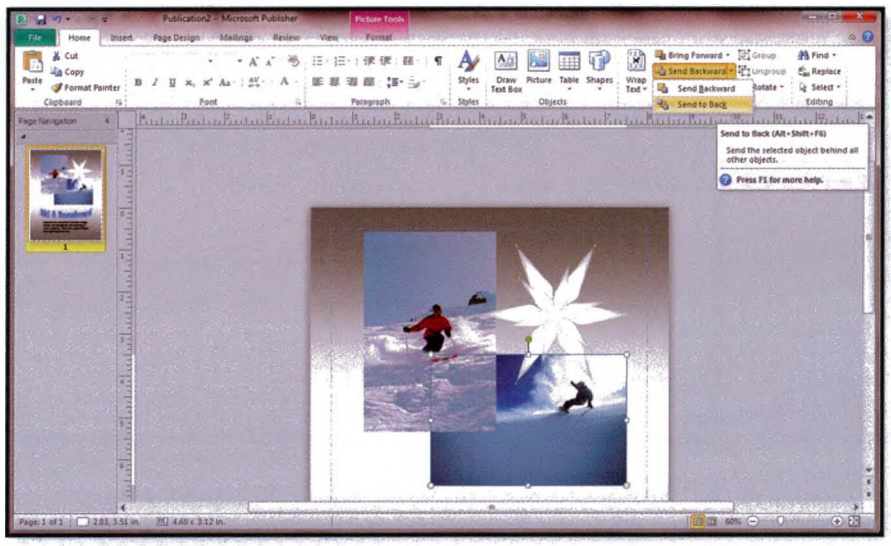


FIGURE 9-12 Image Overlap

USING CLIP ART

Clip art is a collection of copyright-free images and graphics that can be used whenever you need them. There are literally millions of clip-art images to choose from. Microsoft ships a few sample images with its products. But to get a larger selection of images, you need to go online. Luckily, Microsoft makes this quick and easy to do.

Remember that clip art can be used in all of the Microsoft Office applications: Word, PowerPoint, and even Excel and Access. However, clip art is essential to DTP. In this exercise, you will practice finding clip art and learn to position it.

Activity 9-3 FIND AND MANIPULATE CLIP ART

1. If necessary, open Microsoft Publisher.
2. Pick **File** > **New**.
3. Choose a blank document to practice with.

DigiTip

If you choose a blank document, you can add a background color. A background color can be a solid color. Another option is a **gradient** color. Gradients gradually shift line by line from a solid color to another color, like white, and back again, as seen in Figure 9-13.

If you cannot go online, your clip-art options will be limited. To get more clip-art images, you must go online. Click the **Include Office.com content** box marked in Figure 9-14, and images from Microsoft's image stash in the cloud will fill the search results.

4. Add some interest to your publication. Choose the **Page Design** tab, and then pick the **Background** button from the *Page Background* group.
5. Pick a **Solid Background** color or a **Gradient Background**.

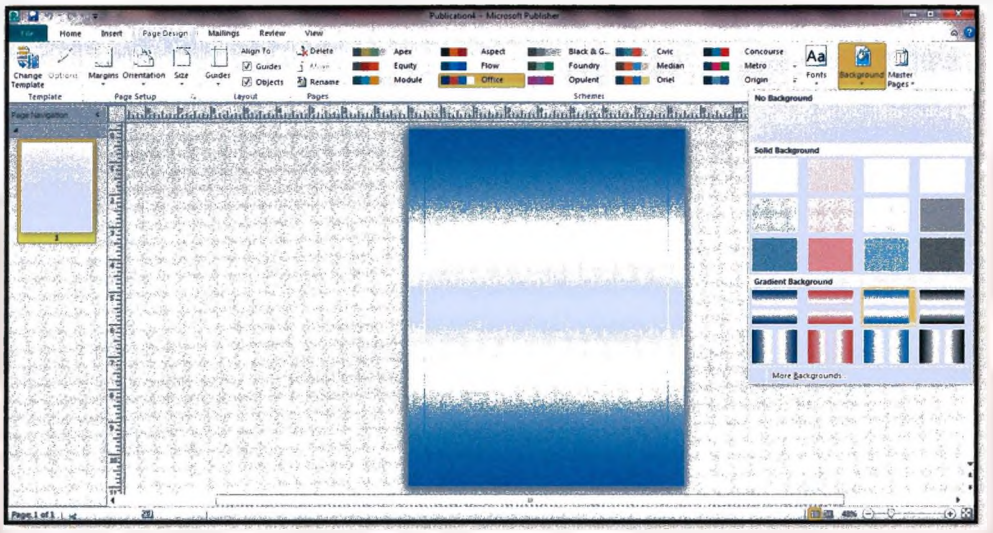


FIGURE 9-13 Background Selection

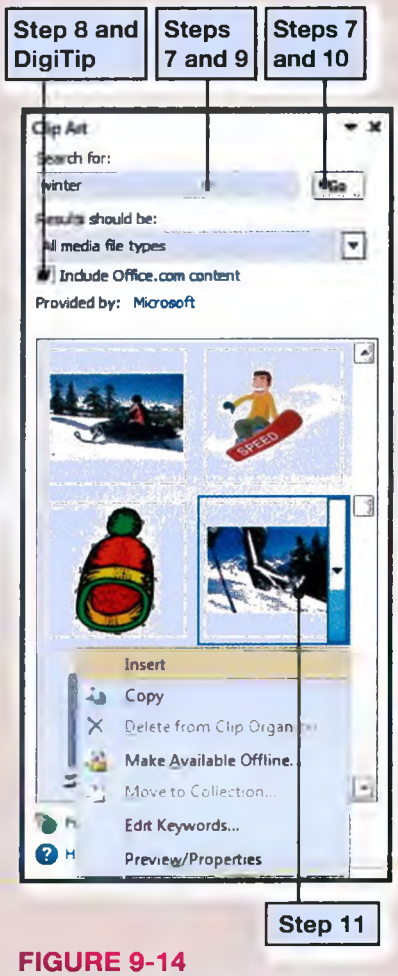


FIGURE 9-14
Clip Art Search Dialog Box

6. Choose the **Insert** tab followed by **Clip Art** in the *Illustrations* group.
7. Key a search word in the *Search for* text box in the Clip Art task pane as marked in Figure 9-14. Choose **Go**. (*Note:* In the example, the word *winter* has been keyed.)
8. If you want options for audio, video, and photographs and want to search beyond those in the local collection:
   Publisher 2010: Click the **Results should be** down arrow and place a check mark next to each option or select **All Media Types**. Then, and this is very important, click the **Include Office.com content** box marked in Figure 9-14.
   Publisher 2007: Choose the **Search in** down arrow and check all of the options, including the online Web collections.
9. Key a keyword in the *Search for* text box. (In Figure 9-14, the word *winter* is entered.)
10. Tap **Go** to begin the search.

To insert an image, click on the thumbnail of the image first. Click or tap the down arrow next to the image you want, and then choose **Insert** from the pop-up list. (See Figure 9-14.)

11. Following the instructions in the DigiTip, insert three images on the top portion of your Publisher page.
12. Arrange the pictures in an attractive manner in the top half of the page, making sure they overlap each other. Use the **Bring Forward** or **Send Backward**

option to prioritize the prominence of an image as explained in this lesson's introduction.

13. Select your images, and then use the Picture Tools Format tab to apply styles as you learned to do in Chapter 8. (See Figure 9-15.)



FIGURE 9-15
Image Styles Applied

14. Save your practice document as ***Publication 1*** in your ***Chapter 9*** folder.

USE WORDART

WordArt is a clever utility that allows you to turn words into more interesting graphics. WordArt allows you to add visual interest to a document that would otherwise be drab. But you must be careful not to get carried away with WordArt and create an element or object that may be too fancy for the document. For example, inserting a rainbow-colored WordArt graphic could appear out of place and distract the reader. When in doubt, keep your WordArt simple.

Activity 9-4 ADDING WORDART

1. Reopen Microsoft Publisher and your practice ***Publication 1*** document if necessary.
2. Scroll down below your images.
3. Choose the **Insert** tab followed by the **WordArt** down arrow option on the *Text* group.
4. Pick a style from the WordArt Transform Styles gallery as seen in Figure 9-16. (In Figure 9-16, a blue, curved, gradient fill design has been selected.)



FIGURE 9-16
WordArt Style Gallery

5. You will immediately be asked to key your text in the Edit WordArt Text dialog box seen in Figure 9-17. In this case, **Ski & Snowboard** has been keyed. Key your text, and tap **OK**.

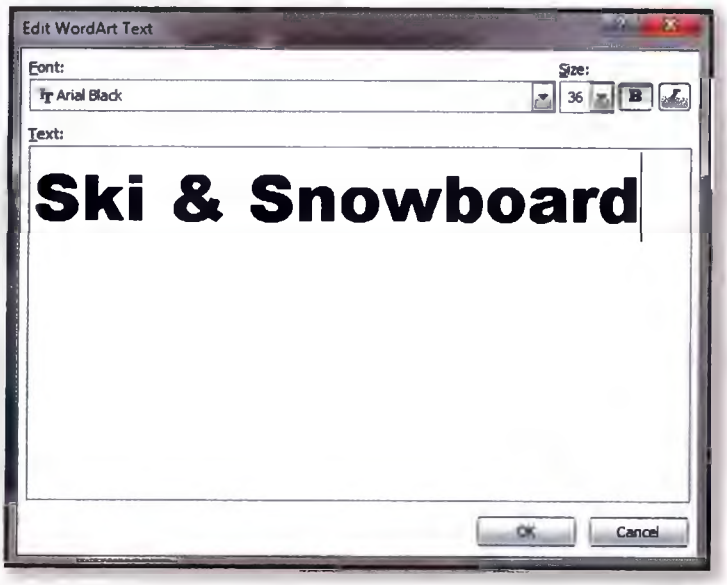


FIGURE 9-17
Edit WordArt Text Dialog Box

6. Your WordArt will be placed in a box that can be moved, resized, and manipulated. Position your WordArt below your images. Be sure to leave room at the bottom for a text box. (See Figure 9-18.)

7. Resave your ***Publication 1*** file in your ***Chapter 9*** solutions folder, and leave it open for the next activity.

Activity 9-5 ADDING SHADING, SHAPES, AND TEXT BOXES

1. Reopen Microsoft Publisher and your practice ***Publication 1*** document if necessary.

2. Scroll down below your WordArt element.

3. Click the **Home** tab button. In the *Objects* group, pick **Draw Text Box**. Draw a rectangular-shaped box below your WordArt element. The text box should fill a good portion of the bottom of the screen. In the box, key this text:
Come to the TravelView Mountain Lodge for the best skiing and snowboarding in North America. Great snow, great people, and a great place to stay.

4. Select the text, and change the font style and size so that it fills most of the box and appears proportional to the other elements in your publication.

5. Resize and move your text box around and into position below the WordArt as needed.

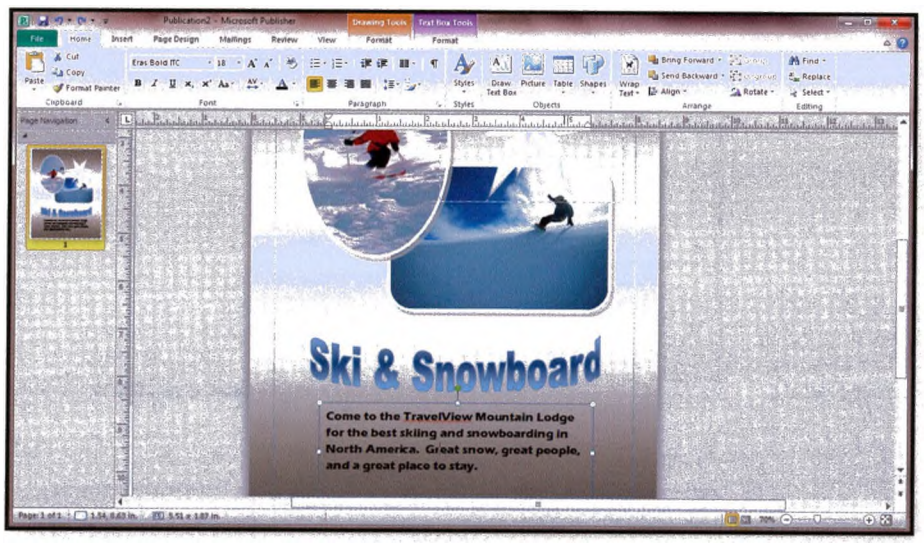


FIGURE 9-18
Text in Text Box

6. Create a shaded background element for your text as seen in Figure 9-19.
   a. Start by selecting the **Home** tab.
   b. Pick the **Shapes** down arrow.
   c. Pick the **Rounded Rectangle** shape.



FIGURE 9-19
Rounded Rectangle Element

7. Click and drag to create a Rounded Rectangle element over your text. Completely cover your text with your new element. (Your text will be visible as you create the shape, so you can judge how big to make the rounded rectangle.)

8. If necessary, click the **Drawing Tools Format** tab and pick a shaded or gradient style for your Rounded Rectangle element from the *Shape Styles* group as seen in Figure 9-20. (*Note:* Your text will be completely covered by the new rounded rectangle element, as seen in Figure 9-20.)



FIGURE 9-20
Rounded Rectangle Style Selection

9. Click on the element, and use the **Send Backward** command to move the element behind your text as seen in Figure 9-21.



FIGURE 9-21
Text Box on Rounded Rectangle

10. Resave your ***Publication 1*** file in your ***Chapter 9*** solutions folder, and leave it open for the next activity.

Activity 9-6 SCRAMBLING YOUR PUBLICATION ELEMENTS

1. If necessary, reopen Microsoft Publisher and your practice ***Publication 1*** document.
2. Save a backup copy of your document by choosing **File** > **Save As**.
3. Change the name of your document to ***Publication 2*** file in your ***Chapter 9*** solutions folder.

INSTANT MESSAGE

You can select multiple objects, such as the text box and the rounded rectangle, at the same time by selecting one and then using the Ctrl key while selecting additional elements. With multiple elements selected, they can be moved together. If elements are always going to be manipulated together, you may want to group them.

4. Reorganize all the elements in your practice ***Publication 2*** file.
   a. Move your WordArt element to the top of the page.
   b. Move your text box (and its accompanying shaded Rounded Rectangle element) to the middle of the page.
   c. Move your three images to the bottom of the page.
   d. Reorganize your images and text elements by using the Bring to Front/Bring Forward or Send to Back/Send Backward commands as needed.
5. Change the font scheme by picking the **Page Design** tab and selecting the Fonts button from the *Schemes* group. Select a font style that enhances the look of your text.
6. Adjust the background by clicking the **Page Design** tab and the **Background** button from the *Page Background* group.
7. Resave your new practice ***Publication 2*** file in your ***Chapter 9*** solutions folder, and then close the file.

LESSON 9-3 Creating Practical Publications with Publisher

IN THIS LESSON YOU WILL:

Objectives

1. Use templates to create business cards.
2. Create certificates.
3. Key and publish press releases.
4. Create stylized title or cover pages.
5. Save documents in a PDF format for online posting.

Key Terms

Portable Document Format (PDF)

TOTALLY PRACTICAL BUSINESS TEMPLATES

A template is a preformatted document. You have already used one template when you created the Flyer 1 publication in Activity 9-1. Templates are an outstanding way to develop exciting and professional documents quickly. If you look in Microsoft Backstage, you will find literally hundreds of template categories that fit almost every need you can think of. Quality templates can be found for almost any document you care to name:

- Brilliant business cards
- Outstanding award certificates
- Lovely letterheads
- Charming cover pages
- Riveting résumés
- Revealing reports
- Super sales brochures

Templates are usually created by desktop publishing experts. And they are easy to find and use, as you will see in the next activity. You will start with a simple example, creating dazzling business calling cards. Then you will take on a cover or title page and a letterhead. In later chapters, you will work with résumés and other business documents.

DAZZLING BUSINESS CARDS

Business cards are a necessity for anyone in business. They contain the basic contact information required to communicate with the person whose name is on the card. Business cards are shared in meetings, given to new customers, and distributed to partners.

Notice that business cards can contain a great deal of personal information, as seen in Figure 9-22. Publisher allows you to enter your personal business information before you create your business cards. Once you enter your personal information, it can be used in a variety of other documents, such as title pages for business documents, letters, and other publications.



FIGURE 9-22
Completed Business Card

Activity 9-7 KEY AND SAVE BUSINESS INFORMATION

INSTANT MESSAGE

In Publisher 2010, you can also choose the Insert tab and select Business Information > Edit Business Information to create or update your business information.

1. Open Microsoft Publisher 2010, and choose **File** followed by **Info**, as seen in Figure 9-23. (If you are using Publisher 2007, choose **Insert** followed by **Business Information > Change Business Information**.)
2. Choose the **Edit Business Information** button seen in Figure 9-23.
3. In the Business Information dialog box, choose **Edit** as seen in Figure 9-23. (*Note:* Your system may automatically take you to the Edit Business Information Set dialog box seen in Figure 9-24 without you clicking Edit first.)

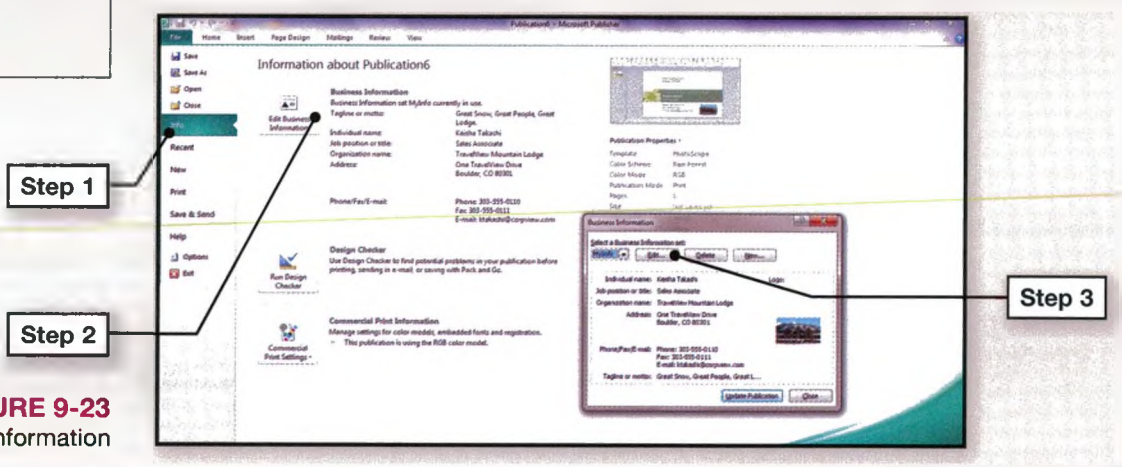


FIGURE 9-23
Your Business Information

4. Key your business name, address, and contact information in each of the fields (little boxes) as shown in Figure 9-24. In each field, there is a prompt or sample that will help you key your information in an organized way.

5. Delete any extra prompts that do not apply. For example, there may be an Address Line 3 that you do not need.

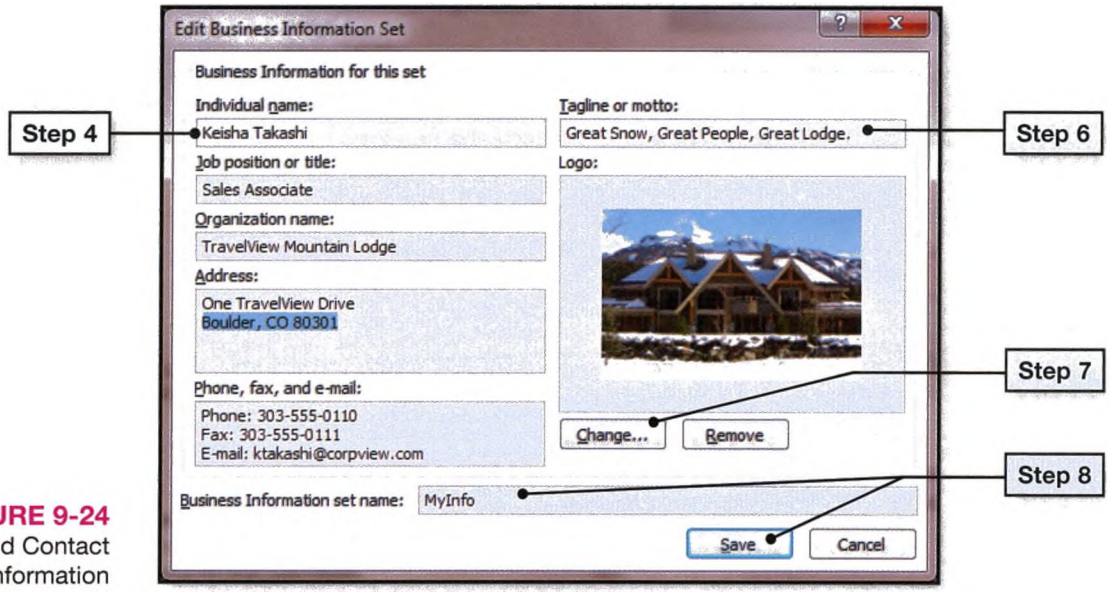


FIGURE 9-24
Name, Address, and Contact Information

6. Add an interesting tagline or motto for your business, as seen in Figure 9-24.

7. From your personal images, choose an image to serve as your corporate logo, as seen in Figure 9-24. If you do not have an image of your own (review Chapter 8), pick a practice image from the ***Chapter 9*** data files folder.

8. Save your file. In the *Business Information set name* field, key **MyInfo** as marked in Figure 9-24, and click the **Save** button. Your file is now available and ready to use in the next few activities.

Activity 9-8 USE A TEMPLATE TO CREATE A BUSINESS CARD

1. Open Microsoft Publisher if necessary, and choose **New** in Publisher 2010 as seen in Figure 9-25. (Choose the **Office** button followed by **New** in Publisher 2007.)

2. Choose the **Business Cards** category to open the template options for Business Cards.

3. Using the thumbnails, find and click on a business card option that fits your personality. A larger image of your selection will appear.

4. Pick your **MyInfo** file from the business information down arrow as seen in Figure 9-25. This will ensure that your information is applied to the business card template you have selected.

5. Choose the **Create** button.

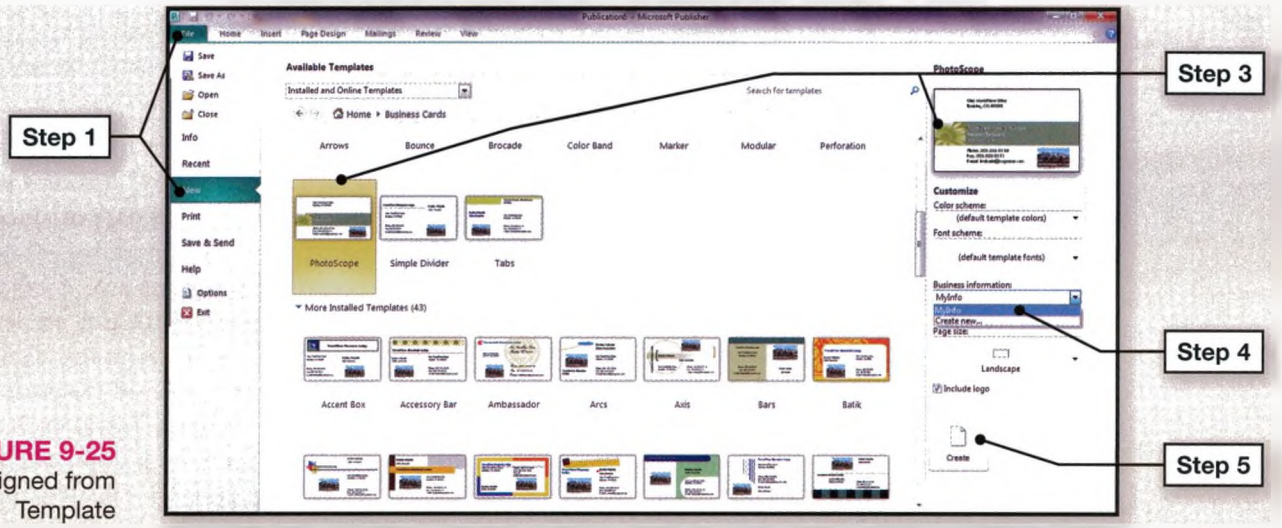


FIGURE 9-25
Business Card Designed from Template

DigiTip

After you create your card, you will have a chance to make edits in Publisher. Changing the information on your business card directly will not change the data in your ***MyInfo*** file. To permanently change your business information in your MyInfo file, choose **Insert > Business Information > Edit Business Information** and make the changes. If you change your information this way, you can pick the option to Update your Publication. (See Figure 9-23.)

6. Inspect your business card. If there are mistakes, make changes at this time. You can delete any text or images and change any of the business information. You can even change the picture element.



FIGURE 9-26
Completed Business Card

INSTANT MESSAGE

Many companies sell specially designed printed forms that match the templates that can be printed from a computer. For example, if you go to your local business supply store, you can purchase paper specifically designed to print eight to ten business cards on a single sheet of paper and then allow you to separate the cards easily.

7. To print your business cards, choose **File** > **Print**. (See Figure 9-27.)
8. When the Backstage Print dialog box appears, notice that Publisher assumes you will want to print many cards on the same page. (Read the adjacent Instant Message.)

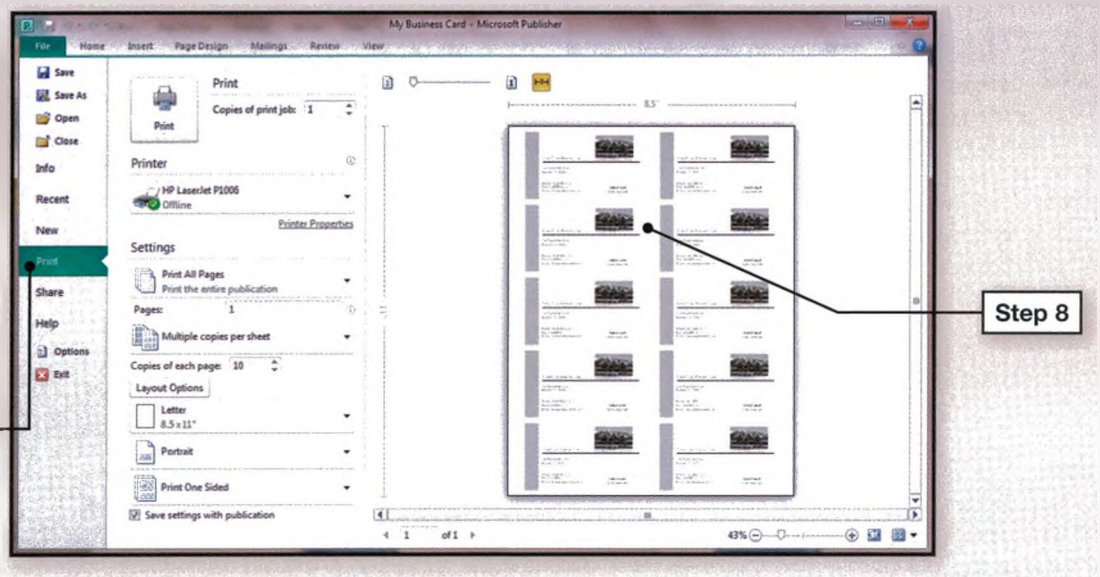


FIGURE 9-27
Business Card Printing

9. Save your completed business card as ***My Business Card*** in your ***Chapter 9*** solutions folder, and close the file.

SUPER CERTIFICATES

Awards and certificates are needed in every business and in every school. For example, business awards, like an Employee of the Month award, may include a certificate. In schools, there are numerous student excellence recognitions that need a great-looking certificate. Try a few options in the next exercise.

Activity 9-9 CREATE A CERTIFICATE WITH A TEMPLATE

INSTANT MESSAGE

Not all of the templates will make use of the data in your ***MyInfo*** file. And some that do, use only a portion of the information.

1. Open Microsoft Publisher if necessary, and choose **New** in Publisher 2010 as seen in Figure 9-28. (Choose the **Office** button followed by **New** in Publisher 2007.)
2. Choose the **Award Certificates** category to open the template options for exciting certificates.
3. Using the thumbnails, find and click on an **Employee of the Month** certificate option. (You can choose this from the installed templates or search through the online templates for additional options.) A larger image of your selection will appear in the preview pane.
4. If the option is available, pick your **MyInfo** file from the business information down arrow as seen in Figure 9-28. If the option does not appear, skip to step 5.
5. Choose the **Create** button.

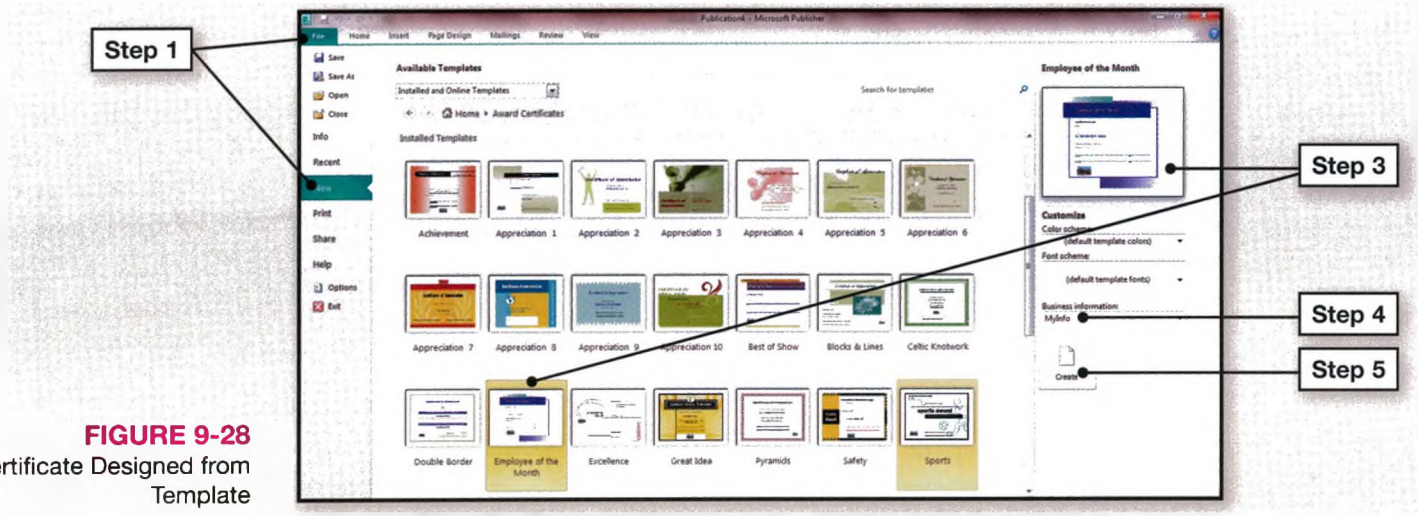


FIGURE 9-28
Certificate Designed from Template

DigiTip

After you create your certificate, you can make changes in Publisher. Feel free to experiment. If you don't like how your certificate looks, use the Undo option to back up and try again.

6. Add the name of a recipient as seen in Figure 9-29.
7. Add a month and year for the award.
8. Inspect your certificate. If there is anything else you would like to change, do so now. Delete any text or images and change any of the information you don't like. You can even change the picture element.

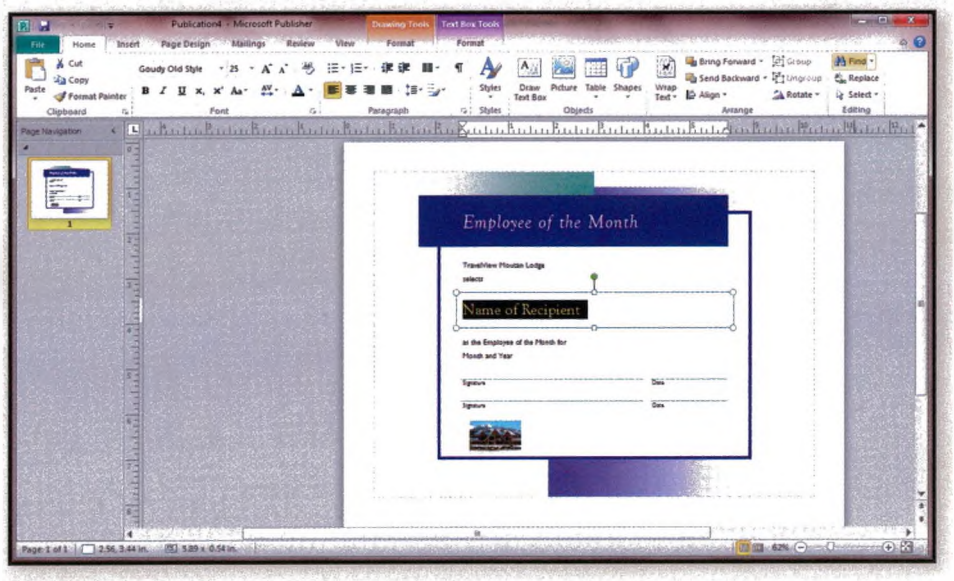


FIGURE 9-29
Personalize Certificate

9. Once again, change the font scheme by picking the **Page Design** tab and selecting the **Fonts** button from the *Schemes* group. Select a font style that enhances the look of your text.
10. Readjust the background by clicking the **Page Design** tab and the **Background** button from the *Page Background* group.
11. Print your certificate with the permission of your instructor.
12. Save your completed certificate as ***Certificate 1*** in your ***Chapter 9*** solutions folder, and then close the document.

MAKING THE BEST OF A BAD SITUATION

Following is an example of how DTP software can help overcome a bad situation. The TravelView Mountain Lodge was hit by an unexpected flood. A series of severe storms caused streams to overflow their banks, flooding the lodge, food court, shopping plaza, golf course, and nearby condominiums. Keisha Takashi has been asked to prepare a carefully worded press release to be shared with employees, guests, and company shareholders at a series of upcoming meetings about the flood and the recovery effort.

Given the bad news, Keisha decided that the press release should look sharp and appear somewhat upbeat. In the following activity, you will help her create this important communique.



©Terry Vine/Blend Images LLC

FIGURE 9-30 Urgent Information and Strategic Planning Meeting

Activity 9-10 DESIGN A PRESS RELEASE IN DTP

1. Open Microsoft Publisher, and search Microsoft Backstage for a format that can be used for the urgent document. You may need to go online to find an informational document template.

2. Key the following information into the publication as shown here:

PRESS RELEASE
Current Date
Contact: Keisha Takashi
One TravelView Drive
Boulder, Colorado 80301
Phone: (303) 555-0110
Email: ktakashi@corpview.com

Flood at TravelView Mountain Lodge

BOULDER, COLORADO, September 4, 2012. The TravelView Mountain Lodge has been hit by an unexpected flood. Heavy rains during the past weeks swelled the nearby river and streams, pouring water, mud, and debris into the main reception area, conference rooms, and basement of the lodge. The outdoor shopping plaza, the golf course, and several condominiums were hit by more than 3 feet of fast-moving water. Fortunately, all guests were evacuated, some by helicopter, and no one was injured.

Buildings on both sides of our lodge were damaged extensively. A storage building to the south was completely filled with mud and debris. Office supplies were found 200 feet away in our nearby fishing lake. The swimming pool now looks a bit like a duck pond!

Damages are estimated at $23 million. The decision has already been made to refurbish the lodge, repair the golf course, and fix the nearby buildings and condominiums. We are also working closely with the county to develop flood containment ponds and levies to prevent future flooding of the property. For the time being, all electrical power and online services will be off for another 72 hours as repairs are made to the power system. Because e-mail is down, please use ground mail services for all correspondence and send it to this address:

Attn: Keisha Takashi
TravelView Mountain Lodge
One TravelView Dr.
Boulder, CO 80301

Thank you for your support at this difficult time.

3. Use your skills to fit all the information on a single page.
4. Insert a graphic. Use Clip Art to find an appropriate image.
5. Save your document as ***Flood Press Release*** in your ***Chapter 9*** solutions folder.

PRESS RELEASE FOR A NEW MEDIA WEBSITE

Another division of Corporate View is in a position to help TravelView increase its number of customers. PublishView specializes in new online media. However, this press release needs to be designed using old media because it will be printed and handed out at a press conference. Design this press release yourself.

Activity 9-11 DESIGN ANOTHER PRESS RELEASE IN DTP

1. Open Microsoft Publisher, and search Microsoft Backstage for a template that can be used for this important document. Again, you may need to look online to find this template.
2. Key the following information into the publication:

PRESS RELEASE
Current Date
Contact: Maria Bravo
One Corporate View Drive
Boulder, Colorado 80303
Phone: (303) 555-0110
Email: mbravo@corpview.com

PublishView Online Offers a Special Forum for Niche Advertisers
BOULDER, COLORADO, August 7, 2012. PublishView, a division of Corporate View, is pleased to announce a new Web publishing group to meet effectively the needs of customers, advertisers, and Corporate View's many divisions.

PublishView's senior editors have worked at Yahoo!, Microsoft Networks, and Google, to name a few. Our team has the experience to create an

exciting website for the many divisions of the company. TravelView, working with PublishView, will launch an online travel magazine called Smart Travel Online. Geared toward business travelers, Smart Travel Online will help businesspeople, including Corporate View's own employees, get the most out of their business trips.

PublishView has spent $4 million developing a state-of-the-art website infrastructure for this project. Expect state-of-the-art graphics and visual effects when you visit the site. The technologies employed include the following:

- **Voice-activated browsing and searching**
- **Java scripting**
- **Social networking options**
- **Real-time video and audio**

Addressable advertising can be purchased by third-party companies. A press kit, with audience dynamics, is available for those wishing to advertise. For more information, contact Maria Bravo by phone or e-mail.

Each online magazine is projected to receive 100,000 hits per week—more after two quarters of operation. When fully online, the entire publishing concern will receive a million hits a day.

3. Use your skills to fit all the information on a single page.
4. Save your document as ***Web Site Press Release*** in your ***Chapter 9*** solutions folder, and then close the file.

CREATING A REPORT TITLE PAGE

Every professionally published report needs a title page. Obviously, the title is the most prominent feature, but it also includes the author's name, the date of publication, and other information intended to entice a reader to turn the page and begin reading the report.

In the next activity, Keisha Takashi has prepared a report on the remodeling effort for the TravelView Mountain Lodge following the flood. It is an important report and her most important assignment. She has worked night and day, coordinating the plans of architects, landscape designers, interior designers, insurance adjusters, contractors, and dozens of teams. She turns to you for help in creating an exciting cover page that will provide visual appeal to her report. Using what you know about styles, create a visually dynamic cover for Keisha's report.

Activity 9-12 STYLIZED TITLE PAGE

1. Start Microsoft Publisher if necessary, and open a blank document.
2. Design a cover page of your own design. Include all of the following information on the title or cover page:

   Repairing the TravelView Mountain Lodge
   Prepared by: Melissa Kim, Project Coordinator
   Prepared for: Corporate View Board of Directors
   [Today's Date]

3. Use style galleries to design a great-looking title page.
4. Insert a picture or an image from clip art that fits the needs of your cover page.
5. Proofread and correct any errors.
6. Save the document as ***Flood Report Title Page*** in your ***Chapter 9*** folder, and then close the file.

DIGITAL SNAPSHOT

What Is PDF?

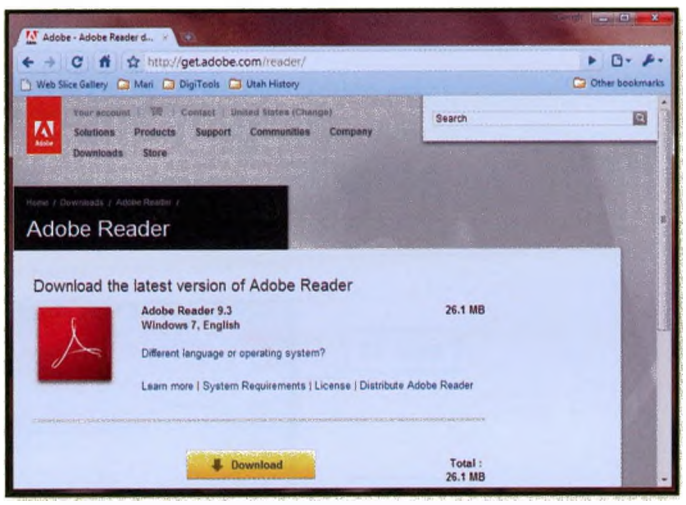
How can you prepare a DTP document for electronic publication? PDF may be the answer you are looking for.

PDF is short for **Portable Document Format**. The format was originally prepared to share documents of all kinds across computer systems. Created by Adobe Systems in 1993, the format has long-standing support in the computer industry. In fact, it has become the industry standard.

As the industry's leading document format, PDF documents can be read by electronic readers and computers alike. All your Web browsers can display PDF files, and Google will include PDF files in Web document searches.

PDF files have many advantages. They can be printed easily by professional printing companies on their heavy-duty equipment that can print thousands of identical copies at a low cost. PDF files also can be locked so that they cannot be changed. This is important for publishers who want to control the look and feel of their print and electronic publications. PDF files can also be stored in archives for years, with reasonable assurance that they can be read for decades to come. PDF files are versatile and can accommodate text, images, and video in the same document. PDF files are saved with a .pdf file extension name.

If you do not have the ability to read a PDF file or you need to update your software, it is a simple task to accomplish. Just go to www.adobe.com and look for a product called Adobe Reader. (See Digital Snapshot 9.1.) Tap the button for the free download, and follow the installation instructions.



DIGITAL SNAPSHOT 9.1
Adobe Reader Download at Adobe.com

SAVE A FILE IN PDF FORMAT

Every professional needs to know how to save a PDF file. (Read the *Digital Snapshot: What Is PDF?* to learn more about this essential format.) Because PDF is so important to digital documents, most major software applications allow you to convert your documents to a PDF format. Microsoft will let you resave your Word, Publisher, Excel, and even PowerPoint documents as PDFs. Doing this will not change your existing files. Converting to PDF will create a new file that is locked into a PDF format that can be viewed and read with a PDF reader.

Activity 9-13 CONVERT AND SAVE A DOCUMENT IN PDF

1. Start Microsoft Publisher if necessary, and open the ***Flyer 1*** file from your ***Chapter 9*** solutions folder. This is the file that you completed in Lesson 9-1.
2. Choose **File** > **Save As**.
3. When the Save As dialog box appears, click the arrow in the **Save as type** box. A list will appear as seen in Figure 9-31.
4. Pick **PDF** from the list, and choose **Save**.

DIGITAL TIP

After you convert and save a PDF file, you can open it directly in Windows Explorer. The PDF file will be automatically recognized and opened in a PDF reader like Adobe Reader.

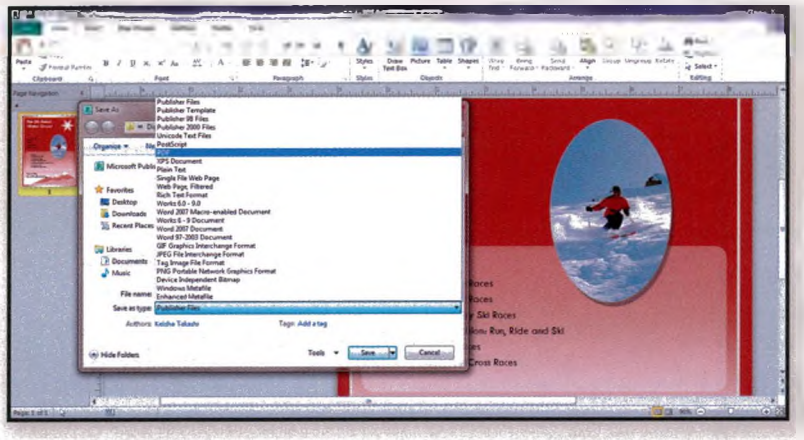


FIGURE 9-31
Publisher File Saved as a PDF Document

5. Open your ***Flyer 1*** PDF file by going to Windows Explorer and opening your ***Chapter 9*** solutions folder. Double-click on your newly created file to open it. It will open in a PDF reader as seen in Figure 9-32.

INSTANT MESSAGE

If you do not have a PDF reader installed on your computer, you can still view PDF files in Microsoft Office applications such as Word and Publisher. If you do not have Adobe Reader, substitute Publisher as your reader software.



FIGURE 9-32
A PDF File in a PDF Reader

6. Proofread the PDF document; make sure it converted correctly and is showing everything as you wanted. If it does not, close the PDF file, return to the Publisher document, make the required edits, and resave it as a PDF file. (You can save over the previously created file.) Check the file again to make sure it is correct.
7. Close the PDF file, and close Publisher.

INTO THE CLOUD

While the Amazon Kindle foreshadowed the change, the iPad changed the game forever for book, newspaper, and magazine sales. Sales of printed magazines, newspapers, and books are down. Sales of online media are way up. If you want to maximize your profits, you need to publish your media online.


© Stefan Sollfors / Alamy

Take *Time* magazine, for instance. America's oldest weekly news magazine, *Time* was first published in 1923 to keep "busy" people informed. Over the next 80 years, *Time* became the gold standard for news reporting.

But then came the digital decade (1999–2009). As more and more people began reading their news online, fewer and fewer subscriptions were sold. Over 1 million people dropped their subscriptions. In 2009, TIME lost another 30 percent of its newsstand sales.

Why the dramatic slide? Because today, busy people get their news from the cloud and read it on their iPads, smart phones, and laptops.

To battle back, *Time* promoted a digital app made especially for the iPad's initial release in 2010. *Time* benefited by being the first major news magazine available on this hot new DigiTool. Over 2 million iPads were sold in the first two months. Now that's how to make a comeback!

But what are smaller publishers to do? One way to go online cheaply and easily is to publish printed documents in a PDF format. PDF, or Portable Document Format, provides a single standard for online documents. Any document in PDF can be converted to an iPad format and can be read by all the major browsers.

Discussion:

1. What magazines, newspapers, and books have you read online?
2. How do you prefer to get your news—online or in print? Why?
3. Have you ever downloaded and read a PDF document?

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 9-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools*.

Building Up: Your Math Skills

Exercise 9-2 INSERT SYMBOLS

You will often need to represent mathematical symbols and formulas in your Word, Publisher, and even PowerPoint documents. Symbols are specialized characters that can also be used to display mathematical operations. View the symbols by following these steps.

1. Open a Microsoft Word or a Microsoft Publisher document, and choose the **Insert** tab. (In Publisher, you must first create a text box in order to insert the symbols inside an active text box. The reason for this is that these are text symbols just like the keys on your keyboard.)
2. Choose the **Symbol** button from the *Symbols* group in Word or from the *Text* group in Publisher.
3. Find the following symbols:
   - Not equal to
   - Less than or equal to
   - Greater than or equal
   - Division sign
   - Multiplication sign
   - Infinity
   - Greek small letter *pi*
4. Key the following equations, solve, and insert the appropriate symbol in each line:
   - 12 ___ 11 = 132
   - ___ = 3.14159265 (approximately)
   - 12 × 13 = 632 − 4
   - 168 ___ 12 = 14

- Jessica is going shopping and has $20 to spend. Make the following statements true regarding what she spends.
  Jessica spends ___ $0
  Jessica spends ___ $20
- $x <$ ___

5. Save your equations as ***Exercise 9-2*** in your ***Chapter 9*** solutions folder.

Building Up: Your Language Arts Skills

Exercise 9-3 FROM THE EDITOR'S DESK: CONFUSING USAGE

1. Open your browser software. Use the bookmark in your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications > From the Editor's Desk**.)
2. Choose the **Confusing Usage** link followed by the **Personal, Personnel; Quit, Quiet; Imply, Infer** link. Copy and paste the questions to a word processing document, and answer them. (Read the information provided on the Web page, and follow the directions for completing this practice exercise.)
3. Check your answers by comparing them with those on the bottom of the intranet page.
4. Save your work in your solutions folder as ***Exercise 9-3 Confusing Usage***.

Career Clusters



Manufacturing

Manufacturers make the goods and products we use, drive, and wear. Manufacturers also package the food we eat. When some people think of manufacturing, they think of workers on assembly lines. Such labor is still necessary to make products and to meet deadlines. Today, however, automation is used in manufacturing. Automation combines machinery, computers, and robotics to make products.

Modern automated manufacturing takes organization. Manufacturers must plan each step: organize the delivery of supplies and parts, examine costs, design and customize machines, program robots, and plan how long it will take to complete each step of the process. This allows manufacturers to deliver their products on time, on budget, and in the most efficient manner possible.

The automation in today's high-tech manufacturing facilities requires their employees to have degrees in higher education and to be provided technical training. Table 9-2 highlights some manufacturing careers and sample salaries in this field.

Position and Yearly Salary		Position and Yearly Salary	
Production Manager	$44,740	Butcher and Meat Cutter	$26,510
Purchasing Manager	$61,260	Industrial Engineer	$61,940
Process Control Programmer	$38,830	Baker	$21,830
Cost Estimator	$50,450	Mechanical Drafter	$41,750
Forging Machine Operator	$28,230	Engine Assembler	$29,610
Computer Scientist	$76,970	Mechanical Engineering Technician	$43,980
Machinist	$32,880	Electronic Equipment Assembler	$23,900
Fish Cutter	$18,310	Graphic Designer	$39,670
Electrical Engineer	$68,630	Production Finisher	$23,740

TABLE 9-2
Career Cluster: Manufacturing

Manufacturers must carefully plan their work so it is completed in the most efficient order possible. Work must also be planned so that it takes the least amount of time possible. This can be tricky. That's why many professionals use charts and diagrams to help plan and guide a manufacturing process.

A Gantt chart is a type of flowchart used to sequence the timing and completion of steps. You already have the skills you need to create a Gantt chart in Word, Publisher, PowerPoint, or another drawing app. But first you need to know how these charts can be helpful.

To understand Gantt charts and the manufacturing planning process, consider the steps you must take to write a research report. The process includes the steps outlined in Table 9-3. An approximate time required to complete each step is also included. These steps are not in any particular order.

Step	Estimated Time Required
1. Search for sources of information on the report topic	2 days
2. Proofread and print a final copy	1/2 day
3. Choose a topic	1 day
4. Write the first draft	3 days
5. Revise based on peer reviews	1 day
6. Get peer reviews of report	1 day
7. Read information from sources	5 days
8. Format the report in the required style	1/2 day
9. Write a report outline	1 day

TABLE 9-3
Report Writing Steps

Now that you know what needs to be done and how much time it will take, the steps need to be sequenced in a logical order. Study the sample in Table 9-4. Notice that the flowchart (or Gantt chart):

- Shows how long it should take to perform the entire task.
- Indicates, with arrows and bars, what steps come first, second, third, and so on.
- Displays, based on the width of each bar on the chart, the time needed to complete each step.
- Shows that the process starts with Step 3, goes to Step 1, and so on, until the final step in the process is complete.

Research Report	
Activity	**Days**
1. Search for sources of information	2
2. Proofread and print a final copy	1/2
3. Choose a topic	1
4. Write the first draft	3
5. Revise based on peer reviews	1
6. Get peer reviews of report	1
7. Read information from sources	5
8. Format the report	1/2
9. Write a report outline	1

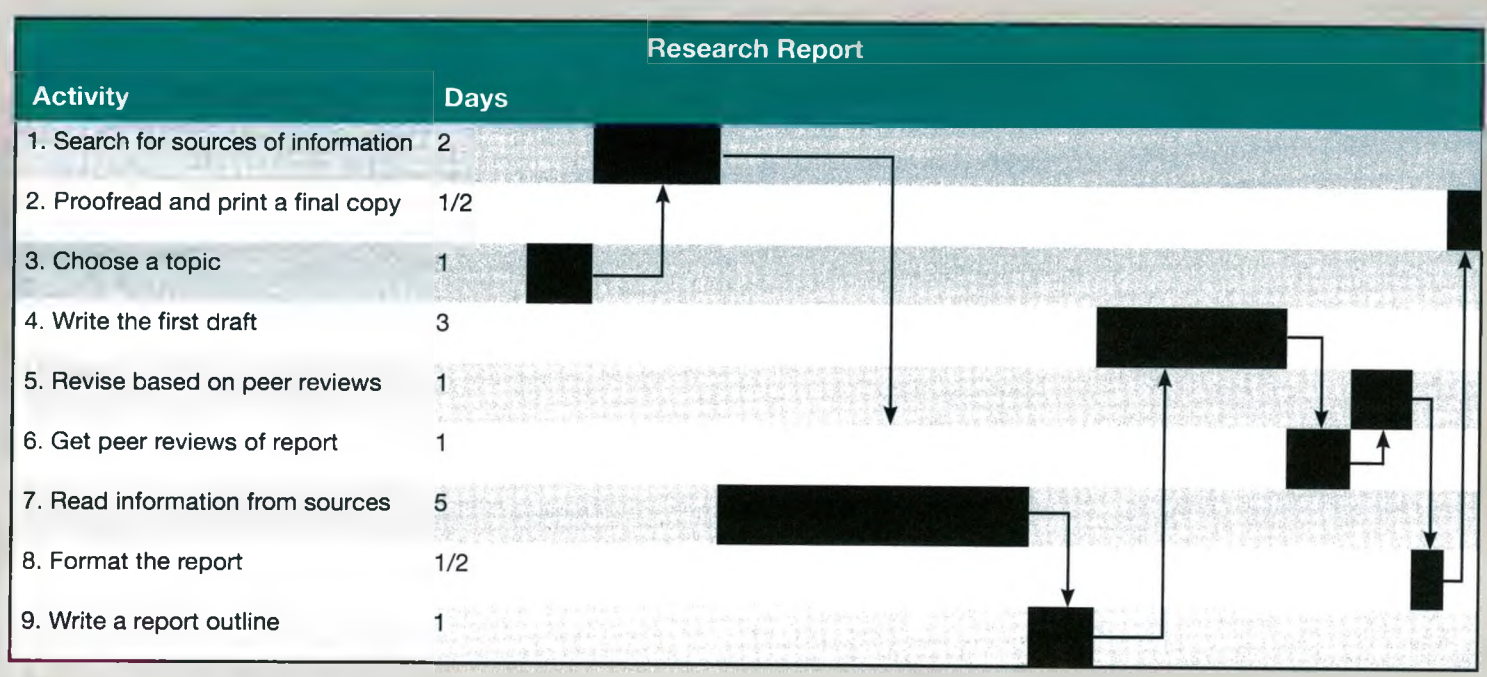


TABLE 9-4 A Gantt Chart for a Research Paper

All of these shapes can be found on the Insert tab in Microsoft Word, Microsoft PowerPoint, and Microsoft Publisher. They also can be found in most drawing apps. Microsoft even created the app Microsoft Project just for the purpose of making Gantt charts, flowcharts, and other tracking tools. In business, charting is a needed and important skill.

Here are a few tips for creating a flowchart or a Gantt chart using Shapes:

- Use landscape orientation if the table needs to be wide to hold bars for several time units (minutes, hours, or days).
- Choose **Insert** > **Shapes** from the *Illustrations* group. Look at the various shapes that are available, especially the **Flow Chart** and **Line** shapes. Then drag the shape onto the table. Resize the shape if necessary.
- If you want to change the color of an arrow or a shape, select it. Click the **Format** tab from the **Drawing Tools** to see the choices for color and shading.

21st-Century Skills

Personal Productivity

Exercise 9-4 FLOWCHART FOR PERSONAL EFFICIENCY

Are you ever late for meetings, events, or school? Does it take you a long time to get up, get ready, and get out the door? Getting ready for something is just a manufacturing problem. When you get up and go through your morning routine, you are *making* (manufacturing) yourself look your best—with the goal of doing so in the shortest time possible. Each step, like brushing your teeth, takes a specific portion of that time. How long does it take to get ready?

Use a flowchart or Gantt chart to figure out the fastest and most efficient way to get up, get ready, and leave for school or another event. Determine how long each step takes, and create a flowchart that reflects this process.

1. Start by listing all of the things you must do to get ready for an important event, a meeting, or school.
2. Create a flowchart to determine the most efficient steps to follow and the amount of time that should be allocated for each step.
3. Save your flowchart as ***Exercise 9-4***, and place it in your ***Chapter 9*** solutions folder.
4. After looking at your flowchart, calculate the total time required to get ready. Determine when you need to wake up to finish all the steps you have identified to arrive on time.
5. Print your chart, post it, and follow the steps you have outlined. Set your alarm for the designated time, and see if your plan works.
6. Afterward, ask yourself the following questions:
   - Did I anticipate everything?
   - Was my plan efficient?
   - What changes, if any, do I need to make to my plan?
7. Make the necessary changes, and try your plan again on a different day.

Initiative and Self-Direction

Exercise 9-5 CHART ACADEMIC EFFICIENCY

Study is just another manufacturing process. You are manufacturing brainpower, generating learning and building grades. Just like any other manufacturing process, study can be organized for maximum efficiency.

Use flowcharting to help organize your study habits. Final exams may be approaching. You have papers due and exercises that need to be finished for your classes. Create a chart that will help you more efficiently plan and organize your study.

1. List all the classes you have to study for, and prioritize them from most to least demanding. List the assignments and projects you need to prepare and the tests you need to study for. Calculate the time each class project will require and the study time each test will take.
2. Create a Gantt chart to determine the most efficient way to study for all your classes. Which ones should you study for first? How long should you study for each class? Should you switch back and forth, spending time studying for one class and then time studying for another class? Which class has its final first? Which final is last? How does that affect your study plan?
3. Save your flowchart as ***Exercise 9-5*** in your ***Chapter 9*** solutions folder.
4. Print your chart, post it, and follow it. Was your plan efficient? Did it help you earn the best grades possible?

Communication and Collaboration

Exercise 9-6 BRING A LITTLE BIT OF MADISON AVENUE TO YOUR TOWN

The advertising capital of the world is said to be on Madison Avenue in New York. In fact, the term *Madison Avenue* has become synonymous with big-time advertising for major corporations, brands, and products.

Bring a little Madison Avenue magic to your school, church, or community by creating a print advertising piece that can be used to get people's attention. A *print piece* in advertising lingo includes any printed flyer or brochure. It could also be an advertisement for a paper or online publication.

Is there an upcoming party, dance, game, school, church, or community event that needs a little advertising? Pick an event that needs a little Madison Avenue magic.

INSTANT MESSAGE

Save your PDF file carefully. You will learn how to use it online and expand your advertising efforts to the Net in later chapters.

1. Design a single-page flyer or advertising print piece that can be used to sell people on attending the event.
2. Save your document as ***Exercise 9-6*** in your ***Chapter 9*** solutions folder.
3. Print copies of the advertising print piece and post it around in popular locations so people can learn about the event.
4. Convert your print piece into an online piece by converting it to a PDF format with the filename ***Exercise 9-6 Converted*** and place it in your ***Chapter 9*** solutions folder.

Social and Cross-Cultural Skills

Exercise 9-7 PUBLISH AND TELL A STORY WITH YOUR PHOTOS

In Exercise 8-7 in the previous chapter, you were challenged to scan old photos and create an online gallery of pictures. Using those photos or other digital photos that you may have, complete the following steps in which you use photos to relate a tale.

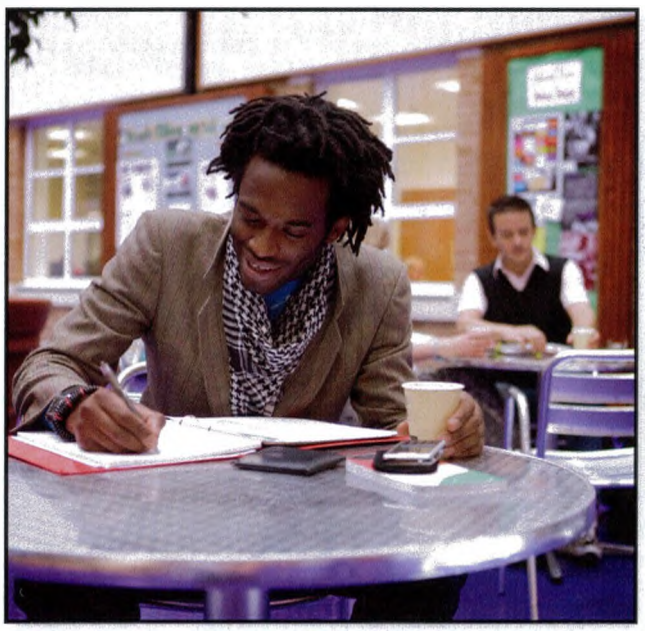
1. Sort through your photos. They could be the photos you scanned in Exercise 8-7, or you could use a few new shots you have taken with your digital camera or your phone's camera. There must be at least three or four photos that share a common theme, tell a story, or send a message of some interest. For example, in Exercise 8-7, you shared family photos from a variety of diverse backgrounds or of your family's past. Perhaps you could use desktop publishing to make a print version of your family background.
2. Using Microsoft Publisher or using the publishing feature of Microsoft Word, write a story and illustrate it with your images. Use publishing techniques to create an exciting printed document.
3. Save your document as ***Exercise 9-7*** and save a copy in your ***Chapter 9*** solutions folder.

Chapter 10

Report and Document Formatting and Publishing Skills

Lesson 10-1 Format Academic Reports
Lesson 10-2 Apply MLA Citation Rules, Tools, Styles, and Formats
Lesson 10-3 Format Business-Ready Reports and Documents

ACADEMIC VERSUS BUSINESS REPORTS



iStockphoto.com/track5

FIGURE 10-1 Report writing is a lifelong business and academic skill.

A report presents facts, ideas, and recommendations on a topic of importance. Reports are prepared every day in business, in government, and in school. In high school and college, you will likely write at least one major paper every semester. In business, depending on your job, you may need to create reports on an even more frequent basis. You cannot get away from them! And because you cannot escape preparing reports, it is best to learn how to create them effectively.

For starters, there is a big difference in the way academic and business reports are formatted.

- Academic report formats are simple, plain, and frankly a bit boring. The emphasis is on research, citation of sources, and the writing itself. In this case, the words matter more than the visual appeal of the document.
- Business report formats must be more interesting and reflect a positive image of the company. The emphasis is on marketing and selling a corporation's ideas and products. Often, the visual appeal of a report can be as important as the written word. In other words, the look of a business report must make a positive impression and show some technical skill. This inspires confidence in the company.

LESSON 10-1 Format Academic Reports

IN THIS LESSON YOU WILL:

Objectives

1. Create, key, and format academic reports.
2. List references and create a Works Cited page.
3. Create an academic title or cover page.

Key Terms

dash
in-text citations
paraphrase
quote

FIRST, THINK ABOUT YOUR AUDIENCE



FIGURE 10-2 Write to the expectations of your instructor.

In this lesson, you will format an academic report. Before you begin, think about your audience.

Remember who your audience is—*your academic instructor.* This is a small audience of one person. You will need to find out what your instructor's expectations are and adjust your message, purpose, and report format accordingly.

Academic instructors are interested in evaluating your writing and research skills. They care about the logical flow of your writing. They want you to demonstrate your research skills in the assigned topic, (for example, global warming in science, the Electoral College in political science, and Greek playwrights in literature).

Also, remember who your competition is—*the other students in the class.* And because the academic papers turned in by the other students are formatted and cited in similar ways, you have to compete based on the following:

- Your research skills
- The logical flow of your ideas
- Your presentation of the facts
- Your writing skills

ERROR-FREE ACADEMIC REPORT FORMATS

Watch the Video
Go to the video for this lesson.

A video illustrating how to perform the skills in this lesson is available from your instructor or online at: www.cengage.com/school/keyboarding/digitools.

In this lesson, you will format an academic report. The document style used for academic reports has not changed all that much in nearly 100 years. In fact, the formatting of the average academic college paper today looks similar to research papers from the 1950s typed out on manual typewriters! In this case, tradition wins out over our software-driven DigiTools.

However, heed this warning: make sure your reports are error-free. Because word processing software and text editors have built-in spelling and grammar checkers, you have no excuse for making spelling and grammar errors, and they will cost you points. Proofreading is essential. Do not procrastinate! Finish your papers early so you have time to proofread your work. Because it is easy to correct errors and you can view your work before you print it, today's instructors expect error-free submissions.

And finally, before you write a report, take a few minutes to review the *Eight Keys of Dynamic Digital Communication* explained in Table 4-1 on page 117.

Activity 10-1 KEY A REPORT

1. Open a blank document in Microsoft Word.
2. Begin keying the three-page report shown in Figure 10-5. As you do, read each of the steps below for tips on how to make this report look like the sample in Figure 10-5.

INSTANT MESSAGE

The Header is a space reserved at the top of a document for critical information that needs to appear on every page. If you make a mistake, return to the Insert > Page Number feature and choose Remove Page Numbers.

Insert Page Number: If you use the Insert Page Number feature, the page number will automatically be updated on every printed page.

3. To add the page number with your name included, as seen in Figure 10-3, follow these steps:
   a. Pick the **Insert** tab. From the *Header & Footer* group, choose **Page Number**.
   b. Pick the **Top of Page** option, and then look for a style that places the page number in the top right-hand corner, such as **Plain Number 3**.
   c. Key your last name (and a space) to the left of the page number.
   d. Close the header by double-clicking the **Header** button (as shown in Figure 10-3) or by selecting the **Close Header and Footer** option from the Header & Footer Tools ribbon.

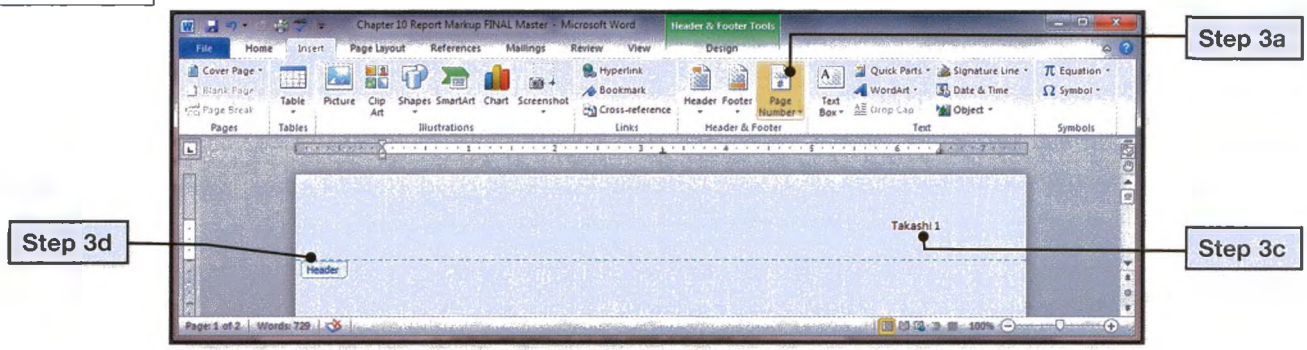


FIGURE 10-3 Header Creation

4. Create your report identification block as seen in Figure 10-5:
   a. Key your name, and tap **Enter**.
   b. Key your instructor's name, and tap **Enter**
   c. Key your class or course name, and tap **Enter**.
   d. Enter the date using the Insert Date feature, and tap **Enter**.
   e. Adjust the spacing to **1.5** between the lines in your identification block.

This report style uses Word's default settings, so it will be super easy to format. If you are using a different style, return to the 2010 default by selecting **Home** > **Change Styles** > **Style Set** > **Word 2010**. (Choose Word 2007 if you are using that version.)

5. Key the title as seen in Figure 10-5. Click the **Home** tab, and choose **Title** from the *Styles* group.

6. Key and format in the entire report as shown in Figure 10-5:
   a. Use the default Word settings. The font should be Calibri 11 pt., and the automatic spacing is 1.15" within paragraphs. When you tap Enter, the proper spacing is added automatically between paragraphs, as seen in Figure 10-5.
   b. For the long quote, use the **Increase Indent** button in the *Paragraph* group on the Home tab's ribbon to move the entire paragraph 0.5 inch from the left margin. The long quote still uses the default 1.15 spacing option.
   c. For the four major side headings, use the **Heading 1** style from the Home tab's *Styles* group.

d. Create the bulleted list as shown in Figure 10-5.
e. Start the three paragraphs after the bulleted list with a **Heading 2** style found in the Home tab's *Styles* group, as marked in Figure 10-5.

7. Leave the margins at their defaults, which are 1" for the top, bottom, left, and right margins of the report.

The em dash: The em dash (—) is longer than a hyphen (-) and is popular for use in books and other professional and academic reports. A **dash** can be used in place of a comma or a semicolon when emphasis is required.

INSTANT MESSAGE

To clear pesky formatting errors, choose Home followed by the More arrow in the *Styles* group. Then, pick Clear Formatting. This tool will allow you to erase all formatting for a selected section of text and start over.

8. To insert an em dash in the phrase *buildings—big buildings* (or to add the ™, ©, or ® symbols):
   a. Choose the **Insert** tab, followed by **Symbol**, and then choose **More Symbols**.
   b. In the Symbol dialog box, pick the **Special Characters** tab.
   c. Select **Em Dash** from the list (see Figure 10-4), click **Insert**, and then click **Close** or **Cancel**.
   d. Repeat the above steps to add the ™, ©, or ® symbols as needed throughout the report.

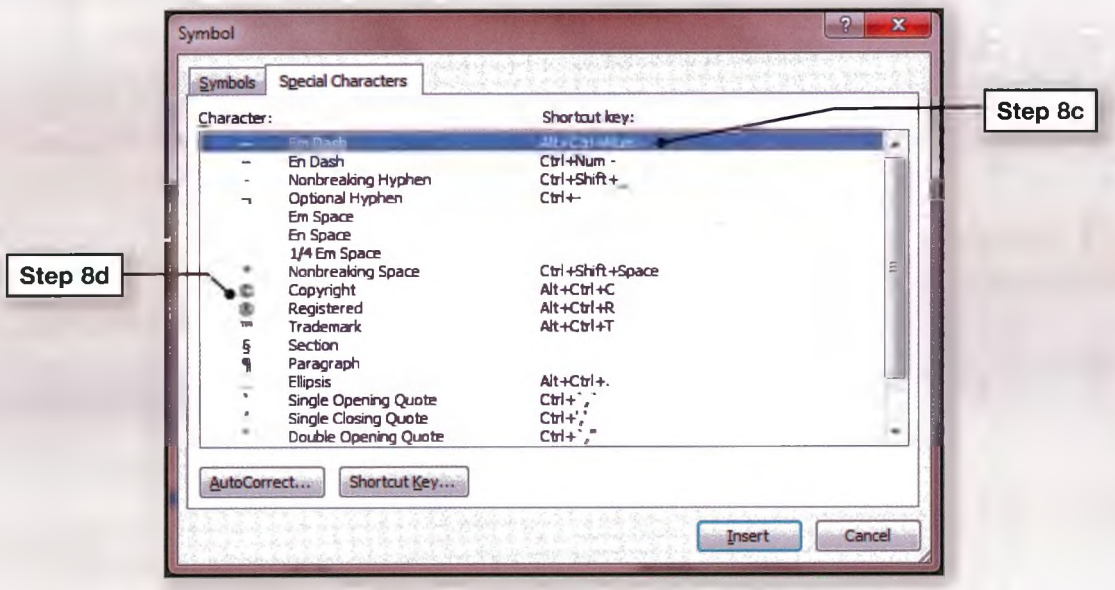


FIGURE 10-4 Special Characters

9. Save your work as ***Report 1 Computer History*** in your ***Chapter 10*** folder, and leave it open for the next activity.

FIGURE 10-5 Academic Report

Header/Last Name/ Page Number

Identification Block/ Author Name/Instructor Name/Course/Date (DD/Month/YYYY)

Initial Caps/ Title 1 Style

1.15 Spacing

Long Quote/Indent .5"/1.15 Spacing

Heading 1 Style

Bulleted List

Heading 2 Style

Heading 2 Style

Heading 2 Style

Keisha Takashi

Mr. Anderson

History

18 June 2012

A Brief Computer History

Computers have greatly changed since they were invented in the 1940s. Early computers were the size of buildings—big buildings! Today, the smart phones we carry in our pockets or purses are more powerful than those early digital dinosaurs.

Computers are capable of some amazing things, and they keep getting better. Bill Gates, the founder of Microsoft, is exuberant about the future of the PC.

> My job at Microsoft is as challenging as ever, but what makes me tap-dance to work is when we show people something new, like a computer that can recognize your handwriting or your speech, or one that can store a lifetime's worth of photos, and they say, "I did not know you could do that with a PC!" (Gates)

Early Computers

However, it took a long time to achieve the powerful PCs we enjoy today. This section will evaluate some of the earliest well-known mainframe computers that paved the way. Three milestone computers are included in this timeline. (Hoggatt, Shank, Barksdale 422)

- ENIAC (1947)
- UNIVAC (1951)
- IBM 701 (1952)

ENIAC

The Electronic Numerical Integrator and Computer, or ENIAC, weighed 30 tons and had to be hauled around in pieces in big trucks. The ENIAC was far less powerful than today's handheld smart phones. ("Wikipedia, The Free Encyclopedia")

UNIVAC

Later, the UNIVersal Automatic Computer, or UNIVAC, was created. Another huge computer, each UNIVAC cost $1 million.

IBM 701

About the same time, International Business Machines (IBM) created the Model 701 (1952), which was the first production-line computer. This computer came by truck in 11 pieces and cost $16,000 each month to rent. This computer stored data on magnetic tape.

The colossal ENIAC, UNIVAC, and IBM 701 computers were called mainframes. They were so expensive that only 6,000 computers were in use in the United States by

FIGURE 10-5 continued

1960. The earliest computers did not use keyboards, speech recognition, touch screens, mouse, or digital pens. Inputting data required using switches, tubes, or punch cards to send instructions to the computers. Punch cards looked like long index file cards with holes punched in them.

Heading 1 Style

Personal Computers

Before the 1960s, big mainframe computers dominated. Only big companies and large government agencies could afford them. In 1975, the Altair 8080 computer introduced the possibility of making lower-cost desktop computers for individuals and small businesses. An Altair build-it-yourself kit required $400 for the base unit and about $2,000 worth of add-on components before it could do much work.

Apple™ took the next big step with the development of the first Apple computer in 1976. Apple built desktop computers that could run simple word-processing, spreadsheet, and other programs.

Eyeing this success, IBM jumped into the market with the IBM PC, or personal computer, in 1981. This computer used an old-fashioned operating system called DOS that was created by Microsoft™. Microsoft was built by Bill Gates, Paul Allen, and Steve Ballmer. Later, Microsoft created the modern Windows® OS, and the wheels of the digital communications revolution were in full motion.

Early PCs required a rather large and sturdy desk to hold them. About the time the personal computer turned 25 years old, the one-billionth PC was sold. Nevertheless, customers began to demand smaller, increasingly mobile, and more portable PCs.

Heading 1 Style

Mobile Computers

The first portable computers were created by Commodore and Compaq in the 1980s. IBM also made an early "portable" weighing over 30 pounds! In the current decade, a new generation of sleek tablet and ultra-mobile net PCs weighing less than three pounds are commonplace. A wide variety of lightweight handheld smart phone computers are popular. In fact, most smart phones today are more powerful than the desktop PCs of the past.

Increasingly smaller computers are able to do more and more. For instance, until recently, computers were not powerful enough to do such basic things as voice-typing with speech recognition. Even a decade ago, computer pioneers knew that powerful new DigiTools like speech and handwriting recognition would soon be possible. Many years ago, Bill Gates predicted that, "Speech is not just the future of Windows but the future of computing itself." (Gross, Judge, and Wildstrom 13)

Heading 1 Style

Conclusion

Speech and other innovations continue to inspire computer makers and computer users alike. As computers continue to get smaller yet gain power and performance, we can only imagine what exciting innovations are just around the corner.

DIGITAL SNAPSHOT

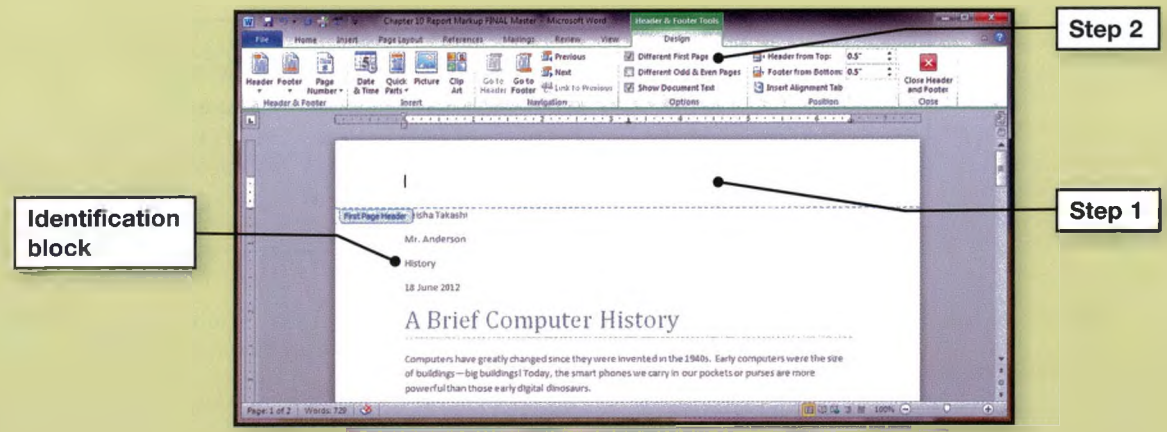
Suppress Name and Page Number on Page 1

In a research paper, you do not want to repeat yourself. Look at the header on page 1 that shows your name and page number, such as *Takashi 1*. You do not need it. Your name is already in the identification block marked in Digital Snapshot 10.1. Your name does not need to appear twice, and it is the first page after all!

But there is a problem; headers by definition appear on every page. If you delete the header information from page 1, it will be removed from every page. That will not work. Fortunately, removing your name and page number from the header on *just* the first page is very easy. Follow these steps:

1. Double-click on the header. This will open the **Header & Footer Tools Design** tab seen in Digital Snapshot 10.1.
2. Click the **Different First Page** box in the *Options* group.

For most instructors, suppressing the name and page number on page 1 is optional. Truth is, very few students know how to do this simple step, so many teachers have long ago quit worrying about it. But, you know what you are doing! Show a higher skill level than the average student by suppressing your page number from the header on the first page. It will be like a magic trick for someone who asks, "How did you do that?"



DIGITAL SNAPSHOT 10.1 Academic Report

IN-TEXT CITATIONS AND WORKS CITED PAGES

In the next activity, you will get a chance to correct errors in your report. You cannot afford to have any mechanical errors in an academic report. Instructors are looking for every possible mistake.

As you proofread, take a moment to notice the **in-text citations**. As you keyed the report in Activity 10-1, you may not have realized that you were entering in-text citations. And you may be wondering, "What are in-text citations?"

When you quote or paraphrase someone, you need to give credit to the author or the source of the information directly after the text. Citations are required when you **quote** a source (copy what the source said word for word) or **paraphrase** another person (restate in your own words someone else's writing or idea).

INSTANT MESSAGE

You will learn more about how to create winning Works Cited pages and citations in Lesson 10-2.

You need to mark your citations in your report. This is as simple as listing the author or other source in parentheses, such as *(Gates)*. Why create in-text citations? They allow the reader of the document to see that the information has come from somewhere else. If they choose to, they can look up the full source at the end of the research paper on the Works Cited page. If you tried to put all of the source information after each quote or paraphrase, the document would be cluttered and difficult to read. The full sources are listed in alphabetical order on the Works Cited page, as seen in Figure 10-6.

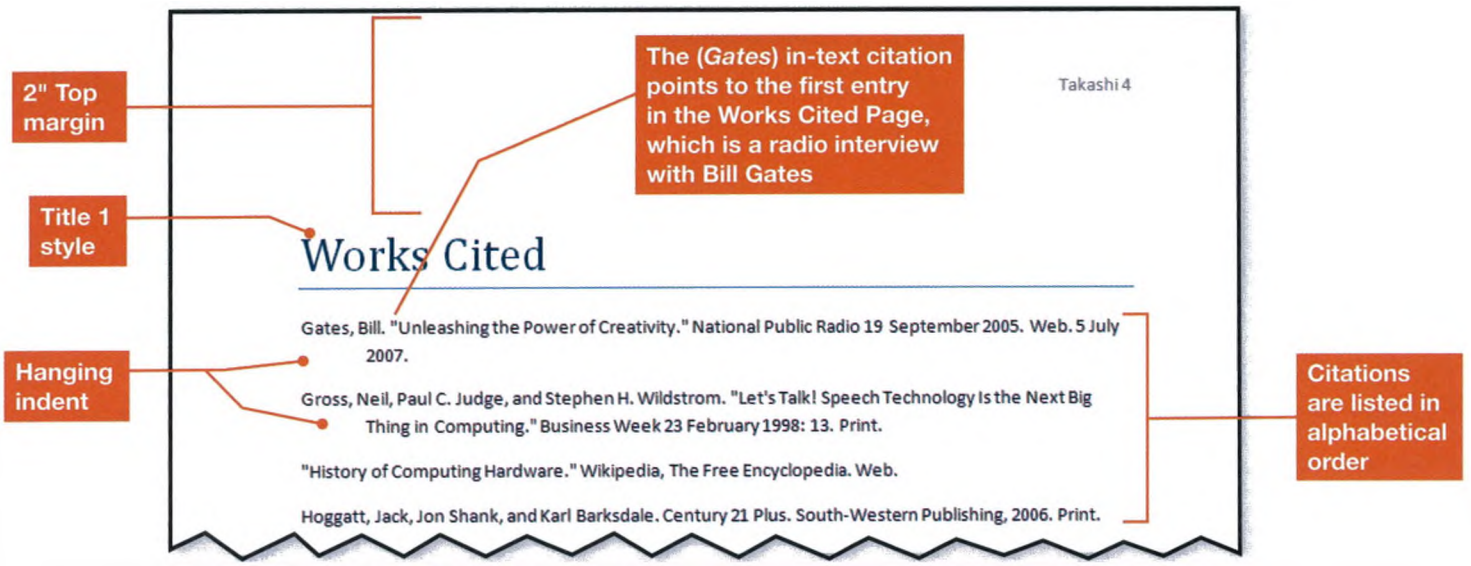


FIGURE 10-6 References and Works Cited

Activity 10-2 PROOFREAD, CORRECT AND FIND FOUR IN-TEXT CITATIONS

INSTANT MESSAGE

Notice the short abbreviated references inside the report. These in-text citations are simple. They include the name of the author (if known) or the name of the publication and often a page number for printed documents.

1. If necessary, reopen your ***Report 1 Computer History*** file from your ***Chapter 10*** solutions folder.
2. Proofread your report, looking for mistakes. Correct all of the spelling and keying errors. Correct any formatting errors that you see.
3. As you proofread, find the four citations inside your report. (You should have keyed these in Activity 10-1.)
   a. Find the *(Gates)* in-text citation. (*Hint:* Use the ***Find*** feature from the *Editing* group on the Home tab.) Now find the matching reference on the Works Cited page seen in Figure 10-6.
   b. Find the *(Hoggatt, Shank, Barksdale 422)* in-text citation. Notice the page number included in this citation. Now find the reference on the Works Cited page seen in Figure 10-6.
   c. Find the *("Wikipedia, The Free Encyclopedia")* in-text citation. Now find the reference on the Works Cited page seen in Figure 10-6.
   d. Find the *(Gross 13)* in-text citation. Notice the page number included in this citation. Now find the reference on the Works Cited page seen in Figure 10-6.
4. After making all of your corrections, resave your ***Report 1 Computer History*** file in your ***Chapter 10*** solutions folder, and leave it open for the next activity.

Activity 10-3 LISTING REFERENCES AND WORKS CITED

DigiTip

Insert page break: When you need to start a new page in a document, use the Page Break feature found in the Pages group on the Insert tab.

1. If necessary, reopen your ***Report 1 Computer History*** file.
2. Move to the end of your document. Insert your insertion point after the final word and the final punctuation mark.
3. Choose the **Insert** tab and select **Page Break** from the *Pages* group.
4. Key **Works Cited**. Format the title *Works Cited* with the Title Style from the *Styles* group on the Home tab. Then tap the **Enter** key and choose **Align Left** to move back to the left margin.
5. Key the four citations shown in Figure 10-6. The samples appear in the following order:
   - A reference from a Web page with an author from a radio station's website
   - A reference from a printed magazine
   - A Web page article with no author
   - A reference from a printed book

DigiTip

Hanging indents: Citations on a Works Cited page must be formatted using the hanging indent. It is called a "hanging" indent because the top line hangs out over the rest of the paragraph. (See Figure 10-6 for an example of how it looks.)

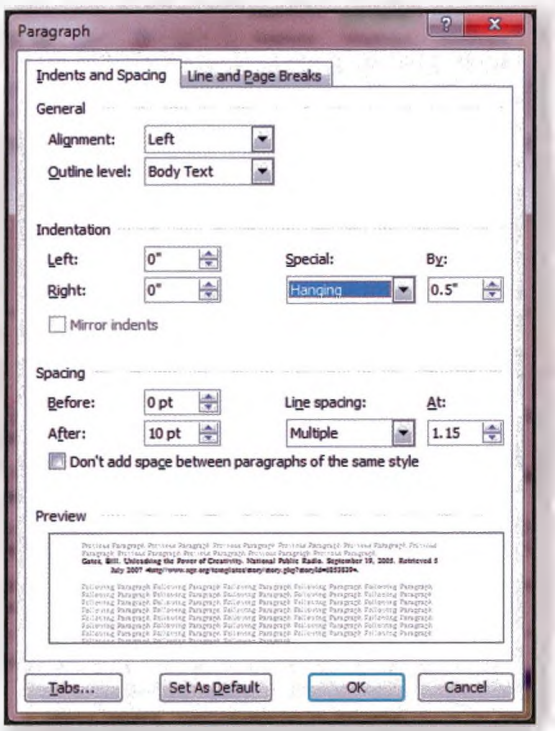


FIGURE 10-7
Paragraph Dialog Box

6. Select all of the paragraphs from your Works Cited page.
7. Choose the **Home** tab, and click the tiny button in the bottom-right-hand corner of the *Paragraph* group. This will open the Paragraph dialog box. Choose the **Indents and Spacing** tab and pick **Hanging** from the Special drop-down list, as shown in Figure 10-7. (The distance of 0.5" for the indent is automatically selected.) Then choose **OK**.
8. Save your work as ***Report 2 with Works Cited*** in your ***Chapter 10*** solutions folder, and then close the file.

DigiTip

Many teachers and professors do not approve of Wikipedia as an academic source. However, when asked, a majority of students admit to using Wikipedia to learn about the topics they are researching. To learn more about the Wikipedia controversy, read the *In the Cloud* feature in Chapter 5 called *Wikipedia: Controversy in the Cloud* on page 204.

CREATING A COVER PAGE

A cover page announces the contents of your report and names the person who prepared the report. Cover pages are not always required in academic reports, but they are a nice touch. In the next activity, you will prepare a title page for the report you created in Activities 10-1, 10-2, and 10-3.

Activity 10-4 CREATE A SIMPLE TITLE PAGE

1. Study the example of a report title page in Figure 10-8. Note that it contains the title of the report, author, and course information.
2. Start Word if necessary, and open a blank document.
3. Turn on **Show/Hide** (from the *Paragraph* group on the Home tab) so you can track the paragraph spacing as seen in Figure 10-8.
4. Position your insertion point 2 inches down the page, and then choose **Center** from the Home tab, as seen in Figure 10-8. (*Hint:* Margins are usually 1 inch to start, so you need to move down only another 1 inch to create 2 inches.)
5. Key the name of the report: **A Brief Computer History**.

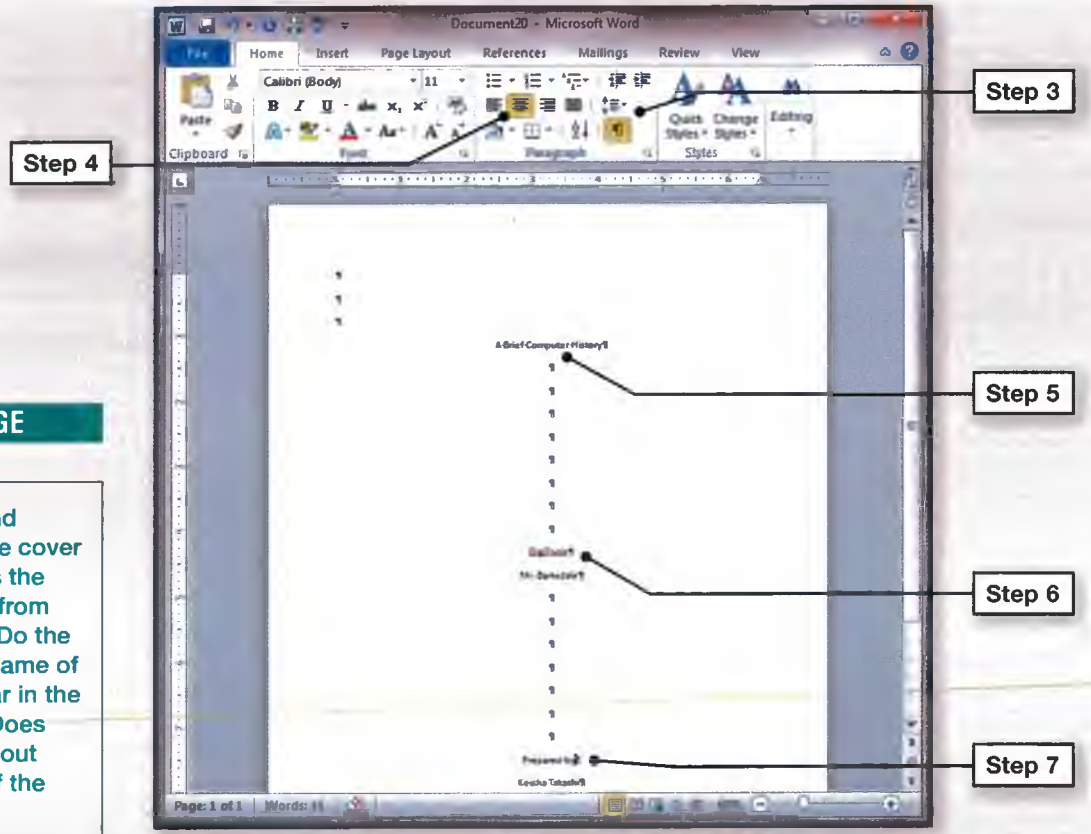


FIGURE 10-8 Simple Title or Cover Page

INSTANT MESSAGE

Turn on your Ruler and zoom out. Is the entire cover page centered? Does the title appear about 2" from the top of the page? Do the class name and the name of your instructor appear in the center of the page? Does your name appear about 2" from the bottom of the page?

6. Move down to the middle of the page, and key the name of your class, such as **DigiTools**. Key your instructor's name below the name of the class as seen in Figure 10-8.
7. Move your insertion point about 2 inches from the bottom of the page. Key **Prepared by**, tap **Enter**, and key your name.
8. Use the Zoom controls to see whether the title page is formatted attractively. Proofread and make corrections as needed.
9. Save the document as ***Title Page 1*** in your ***Chapter 10*** solutions folder, and then close the document.
10. Title Page 1 is stale and boring. Use Styles and your imagination to make a better-looking title page. Keep the same content; just make it look more interesting. Save your new and improved page as ***Title Page 2***, and place it in your ***Chapter 10*** solutions folder.

LESSON 10-2 Apply MLA Citation Rules, Tools, Styles, and Formats

IN THIS LESSON YOU WILL:

Objectives

1. Learn about and apply in-text citation rules.
2. Study and discuss plagiarism and the need to cite sources properly.
3. Gather citation information.
4. Key citation information in Word's source management tool.
5. Key citation information in online citation tools.

Key Terms

Modern Language Association of America (MLA)
parenthetical referencing
plagiarism

UNRAVELING CONFUSING CITATION STANDARDS

Every time you write a report, you have to think about citations. To learn *why* you need to create citations, read *Ethics: Plagiarism* on the following page. Go there now. Avoiding plagiarism is the key reason you must use citations in your research reports.

If you are new to academic report writing, the obscure citation rules can be confusing. This lesson will help you figure it all out. Entering your citations is not as hard as you may think. In fact, you already have some idea about how to format citations. Remember, in Lesson 10-1, you keyed four in-text citations and created a Works Cited page at the end of the report.

There are several styles of quotations that need citations.

- Short quotes can be enclosed in quotes followed by a citation. This is called by a fancy name: **parenthetical referencing**. Also, notice the in-text citation—(Gross)—at the end of the quote:

  > Bill Gates predicted that, "Speech is not just the future of Windows but the future of computing itself." (Gross)

- Quotes longer than two lines should be formatted as a standalone paragraph that has been indented and spaced at 1.15 inches. The in-text citation—(Gates)—follows the paragraph.

My job at Microsoft is as challenging as ever, but what makes me tap-dance to work is when we show people something new, like a computer that can recognize your handwriting or your speech, or one that can store a lifetime's worth of photos, and they say, "I did not know you could do that with a PC!" (Gates)

ETHICS

Plagiarism

Many students get really good at using the Copy and Paste commands. Some are far too good at using it. Rather than working to learn something, they find it easier to copy and paste information from the Internet. And then they try to disguise the fact that they did not write it. This is stealing, pure and simple. It is as unethical as the kid who steals another kid's longboard for a day of joyriding and tries to cover his tracks by tossing the board in a local dumpster.

But the cover-up job usually does not work. First, most teachers know their students' writing styles and vocabulary levels. Teachers will suspect plagiarism as soon as the writing no longer sounds like the student and suddenly sounds like a computer science professor or the world's foremost authority in biology. Second, teachers can just as easily search for and find something online as a student can. If you can find it, so can your teacher.

Stealing the written work of another has an infamous name. It is called **plagiarism**. Those caught plagiarizing can be dropped from their college class and will be given a failing grade. Some students have been kicked out of college for plagiarizing. Plagiarism can even become a crime.

Now that we have made the point about plagiarism, here is the good news. You can lift quotes and ideas from others and use them in your papers. In fact, the point of research is to learn and share what others may have said about a topic. All you have to do is to give credit where credit is due, and you can use a few key lines from another writer. How do you give credit? It's easy. Just cite it properly.

It is important to learn how to cite sources correctly. Vice President Joe Biden learned this lesson the hard way. In law school at Syracuse University, he was accused of plagiarizing five pages from a law review article. He said that the problem was that he did not know how to cite his sources properly and missed the mark. He was tossed from the class and got an F. He overcame the problem by retaking the class and soon after became a lawyer. He went on to become one of the youngest U.S. Senators in history and served with distinction for over 30 years. Later, he was elected as Vice President of the United States. Despite his successes, it seemed that in every election campaign, someone would bring up the "plagiarism incident" in his youth and try and use it against him. [1][2]


AP Photo/Ed Andrieski

So here is the lesson: if you are plagiarizing, STOP! Do your own research, write your own papers, and learn how to cite your sources properly. Do not copy information from the Net, paste it in your report, and call it your own. That is not fair, it is not honest, and it can be illegal. It is much better to learn how to write great research papers of your own. And when you need to copy something from somebody to make a point or give your own ideas support, give that person credit through the use of proper citations.

[1] Wikipedia contributors. "Joe Biden." *Wikipedia, The Free Encyclopedia*. Wikipedia, The Free Encyclopedia, 11 Mar. 2010. Web. 15 Mar. 2010. [2] "Joseph R. Biden, Jr." SourceWatch. Web. 21 Jan. 2011. <http://www.sourcewatch.org/index.php?title=Joseph_R._Biden,_Jr.>.

GATHERING INFORMATION FOR PRINT AND WEB CITATIONS

PRINT SOURCES: You need to gather as much information as you can for any quotes or ideas you wish to use in your report. Gathering information for print documents (books, magazines, newspapers, and so on) is straightforward. Gather as much information as you can in the following order:

- Author (if known)
- Title of the work (if known)
- Name of the publisher or broadcaster (if known)
- Year of publication or date the work was published or broadcast (if known)

WEB SOURCES: Internet or Web sources have been difficult for the style authorities to figure out. For an explanation of the problem, read *Digital Snapshot: Citation Standards*. The information you should try to collect includes the following:

- The title, which is the most important piece of information
- The author (if known), but many websites do not list authorship
- The sponsor (publisher) of the website
- If possible, the date of original online posting or publication, which may be impossible because some sites do not provide the information
- The date you downloaded the work
- The Web address, or URL, if the source is a Web page (optional)

What do you do with all this information once you have collected it? Thankfully, there is help in Microsoft Word and online for creating your citations correctly. In the next activity, you will prepare an in-text citation for a source using Microsoft Word's MLA citation tool.

DIGITAL SNAPSHOT

Citation Standards

Academic professors demand that students use a host of cumbersome report formatting and research citation rules and traditions. In-text citations, bibliographies, and works cited pages must follow a strict set of rules. These rules vary depending on whether your source is the Web, a book, a magazine article, a newspaper article, or an academic journal. And the rules vary depending on which set of citation guidelines you are instructed to follow.

When you get to college, you will learn that different academic disciplines have different citation guidelines. Here is a short list of some of the most widely used styles:

- *ACS:* The American Chemical Society sets styles, formatting guidelines, and citation standards for research papers by chemistry and physics students.
- *APA:* The American Psychological Association sets styles, formatting rules, and citation standards for research papers for social and behavioral science students in subjects such as psychology, sociology, and history.
- *Chicago:* The Chicago Manual of Style (abbreviated CMS or CMOS) sets standards for American English usage and has a big impact on textbook publishing. (This textbook uses the CMS style.)
- *ISO 690:* Created by the International Organization for Standardization, or ISO, this style is used by tech students and covers online documents.
- *MHRA:* The Modern Humanities Research Association applies styles for students in the arts and humanities in the United Kingdom.
- *MLA:* The Modern Language Association of America sets styles, formatting guidelines, and citation standards for students preparing research papers in the humanities and English.
- *Turabian:* Published by The University of Chicago Press, Turabian is a style for research papers, theses, and dissertations.

Do not panic as you look at this list. There is some good news. If you know how to use any one of these styles, applying a different style is easy. And with the availability of automatic citation generators (in word processors and online), it may be as simple as selecting the desired style from a list of choices.

In this book, we will highlight the **MLA** style as defined by the **Modern Language Association of America**.

Activity 10-5 ENTER REFERENCE INFORMATION IN WORD'S CITATION TOOL

1. Open Microsoft Word and your ***Report 1 Computer History*** file from your ***Chapter 10*** solutions folder.

2. Add the following paragraph on the last page of your report, just above your *Conclusion* title. Make sure it is formatted like the rest of the document.

   Probably the most important thing modern computers do is to connect to computers online. Online computers store the world's information in what is often called the Internet cloud. Most of today's computers connect wirelessly to the cloud. The worldwide cloud network is big. How big? "You have to realize that nearly 1.5 billion people are connecting to roughly a trillion different Web pages."

3. Click the **References** tab.

4. Click the **MLA** option from the Style drop-down list in the *Citations & Bibliography* group, as shown in Figure 10-9. (*Note:* There have been many updates to the MLA styles. You may see *MLA Sixth Edition* or a later edition if your software has been updated properly.)

5. Choose **Manage Sources** to begin keying your citation information.

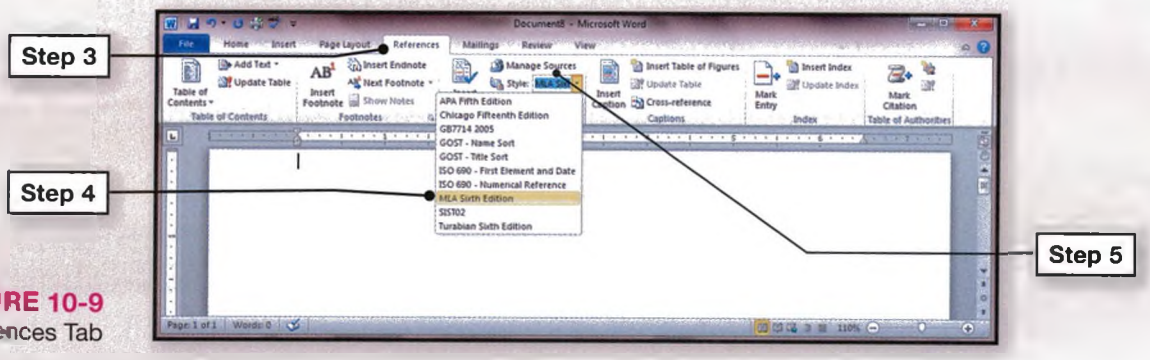


FIGURE 10-9
MLA on the References Tab

6. When the Source Manager dialog box appears, click **New**. (Look ahead to Figure 10-11.)

7. Key the following information in the required fields in the Create Source dialog box as seen in Figure 10-10.
   Author: **Teeter, Ryan; Barksdale, Karl**
   Title: **Google Sites and Chrome for Dummies**
   Year: **2009**
   City: **Indianapolis, Indiana**
   Publisher: **Wiley Publishing, Inc.**

8. Click the **Show All Bibliography Fields** button. Scroll down to the *Pages* field, and key **157** as the page number.

9. Click **OK**. The Create Source dialog box will close, and the entry that you created will appear in both the Master List on the left and the Current List on the right. Note also that the citation, as it will appear in the currently selected style (MLA), appears at the bottom of the dialog box.

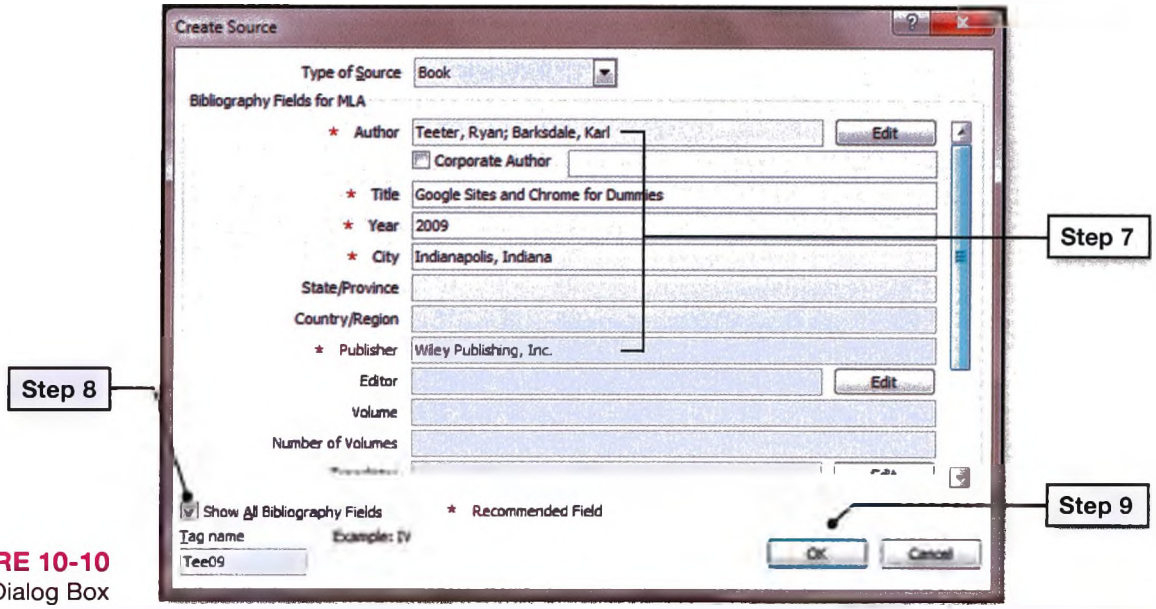


FIGURE 10-10
Create Source Dialog Box

DigiTip

After you enter your sources, Word will let you add citations with a few clicks. However, you may first select the sources you want to use in your citations. The ones you pick will be added to a Works Cited page that will be automatically added to a Word-generated Works Cited page. Practice this feature in the next step.

10. In the Source Manager dialog box, choose the **Teeter, Ryan** source as seen in Figure 10-11.
11. Click the **Copy** button. This will move the resource to the Current List.
12. After you have moved all the sources you need to use to the Current List, click **Close**.

INSTANT MESSAGE

If you accidentally close the Source Manager dialog box, you can reopen it by selecting Manage Sources from the Citations & Bibliography group.

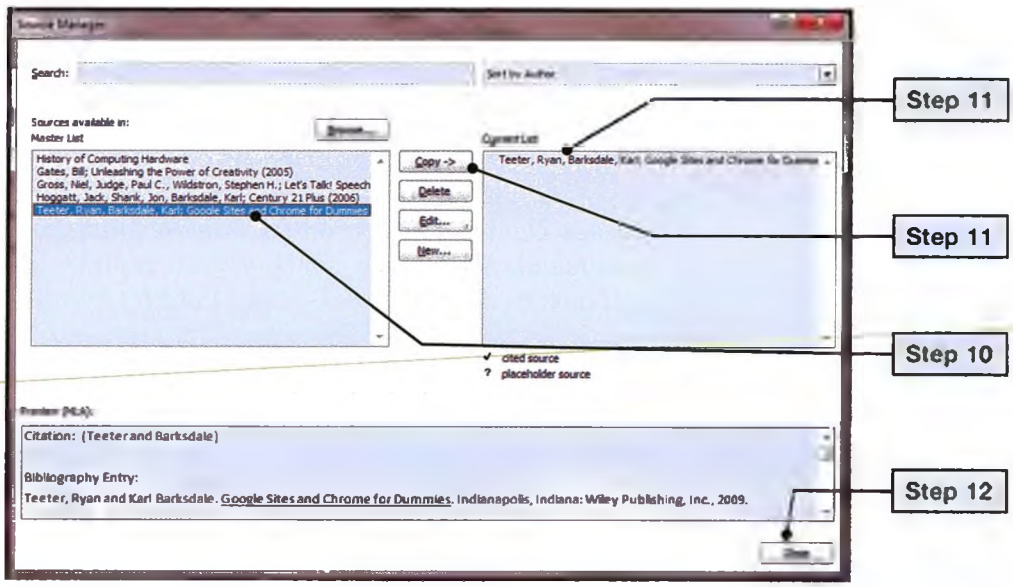


FIGURE 10-11
Source Manager Dialog Box

13. Move to the end of the quote you keyed in step 2.
14. Click the **References** tab, and then pick **Insert Citation**. (See Figure 10-12.)
15. Choose your source from the drop-down list. (See Figure 10-12.)
16. Notice that your in-text citation will be added to the end of the paragraph as marked in Figure 10-12.

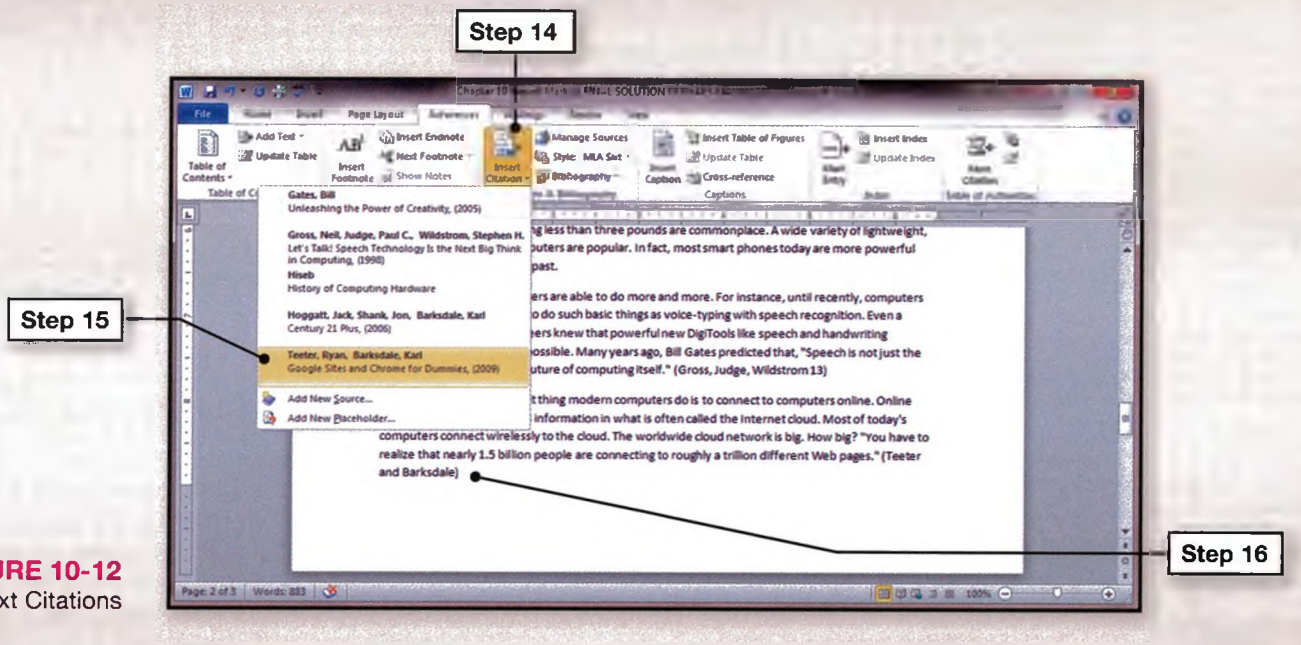


FIGURE 10-12
In-Text Citations

17. Save the changes to your document with a new name, ***Report 2 Citation Practice***, in your ***Chapter 10*** solutions folder. Leave this file open for the next activity.

Activity 10-6 CREATE A WORKS CITED PAGE WITH WORD'S CITATION TOOL

1. If necessary, open Microsoft Word and your ***Report 2 Citation Practice*** file.
2. Move your insertion point to the end of your report.
3. Click the **References** tab, and pick the **Bibliography** button from the *Citations & Bibliography* group as marked in Figure 10-13.
4. Pick the **Works Cited** option from the list. Word will generate a Works Cited section as marked in Figure 10-13.

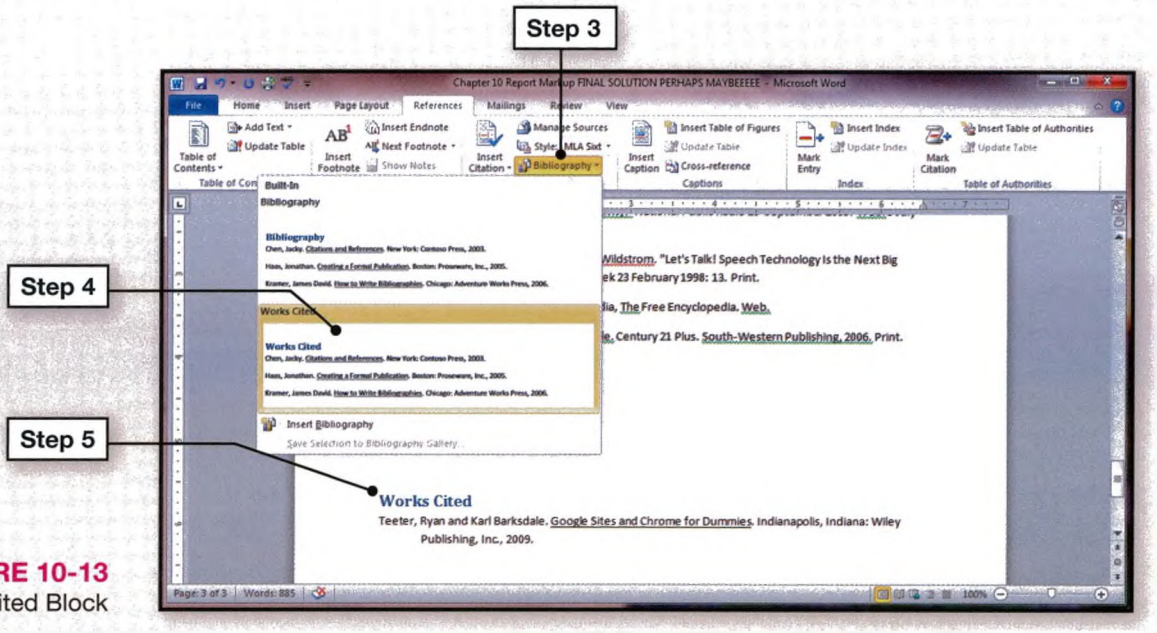


FIGURE 10-13
Works Cited Block

When you let Word create your end-of-report Works Cited block, you can edit and make changes if you make mistakes. However, in our practice document, you already created a Works Cited page. Now what? You cannot have two of them. To reconcile the two, you will need to cut and paste the new Word-created citation and add it to the list you have already created. It's easy to do. Follow these steps.

5. To see the text block, click on the Works Cited title or anywhere in the text.
6. Select and copy the citation from the text block. (See Figure 10-14.)
7. Paste the citation below the list you created by hand. (See Figure 10-14.)
8. If necessary, use **Format Painter** to adjust the font style, font size, and hanging indent to match your original Works Cited list.

INSTANT MESSAGE

In the final format of your report, move your Works Cited page to a separate page following your report. To create a new page, click Insert, Page Break.

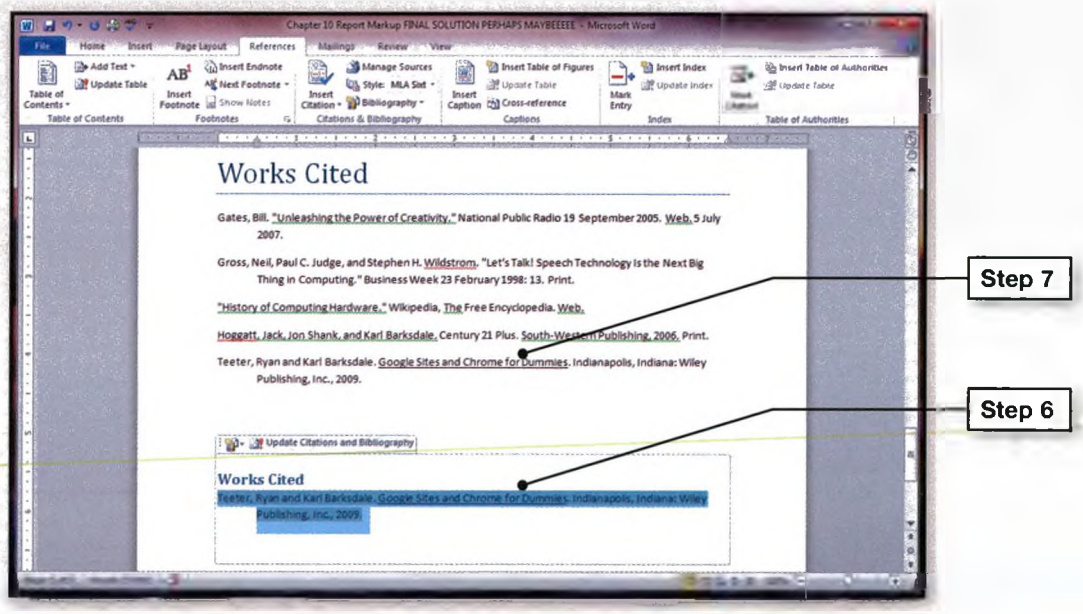


FIGURE 10-14
Works Cited in Report

9. Delete the Word-generated Works Cited block, the part marked by a blue line, to clean up your Works Cited page.
10. Resave the changes to your ***Report 2 Citation Practice***, and leave it open for the next activity.

KEEP CURRENT WITHIN THE CLOUD CITATION TOOLS

There is one big problem with powerful software applications like Microsoft Word. Older versions and copies of Word may sit on someone's computer for years and years. Word soon becomes obsolete, as do its in-text citation creation tools. MLA is constantly updating its standards. If you have an old version of Word, it may not have all the new MLA changes built in!

That is why most college students use the cloud to keep up to date. Many sites stay current with the latest changes. Here are just a few examples of the cloud citation sites:

EasyBib	easybib.com
Son of Citation Machine	citationmachine.net
CitationCreation.com	citationcreation.com
Wikipedia: The Free Encyclopedia	wikipedia.org

TABLE 10-1 Online Citation Sources

INSTANT MESSAGE

Be careful. Some online in-text citation sites charge for their services. Some sites are free or are funded by advertising that can save you a lot of money.

The following activity provides instructions for the EasyBib site as an example. You may not, however, want to use this site. Or for that matter, by the time you get this book, the site may have changed. Experiment with any of the options in Table 10-1, or search for another. Use the site that you feel does the best job and meets your needs.

Activity 10-7 CREATE CITATIONS IN THE CLOUD

1. Open your Web browser.
2. Key **EasyBib.com** in the address window.
3. Review the instructions listed on the site, even those found at the bottom of the Web page.
4. Click the link to view the greatest number of citation options. (See Figure 10-15.)



FIGURE 10-15
An Online Citation Tool

5. Choose the **Website** option as the resource type you wish to site, as marked in Figure 10-15. This will open to the entry screen seen in Figure 10-16.

DigiTip

One of the options is called Autocite. If you know the Web address, or URL, key it in the Enter website address to cite window and click Autocite! With luck, much of the information you need will be located by EasyBib. Autocite is a great tool to get you started if you have a URL.

6. To practice, key the URL for a website Keisha created for her sport of triathlon. Key **sites.google.com/site/mytriathlontravels**, and click the **Autocite!** button. (*Note:* The http:// will be added automatically, so you do not have to key it.)

DigiTip

Website URLs change and cannot be trusted to provide everything you must cite. Follow the EasyBib instructions to "Please confirm or modify" the information.

7. Scan through the data to make sure it is complete; then click **Create Citation** as seen in Figure 10-16.

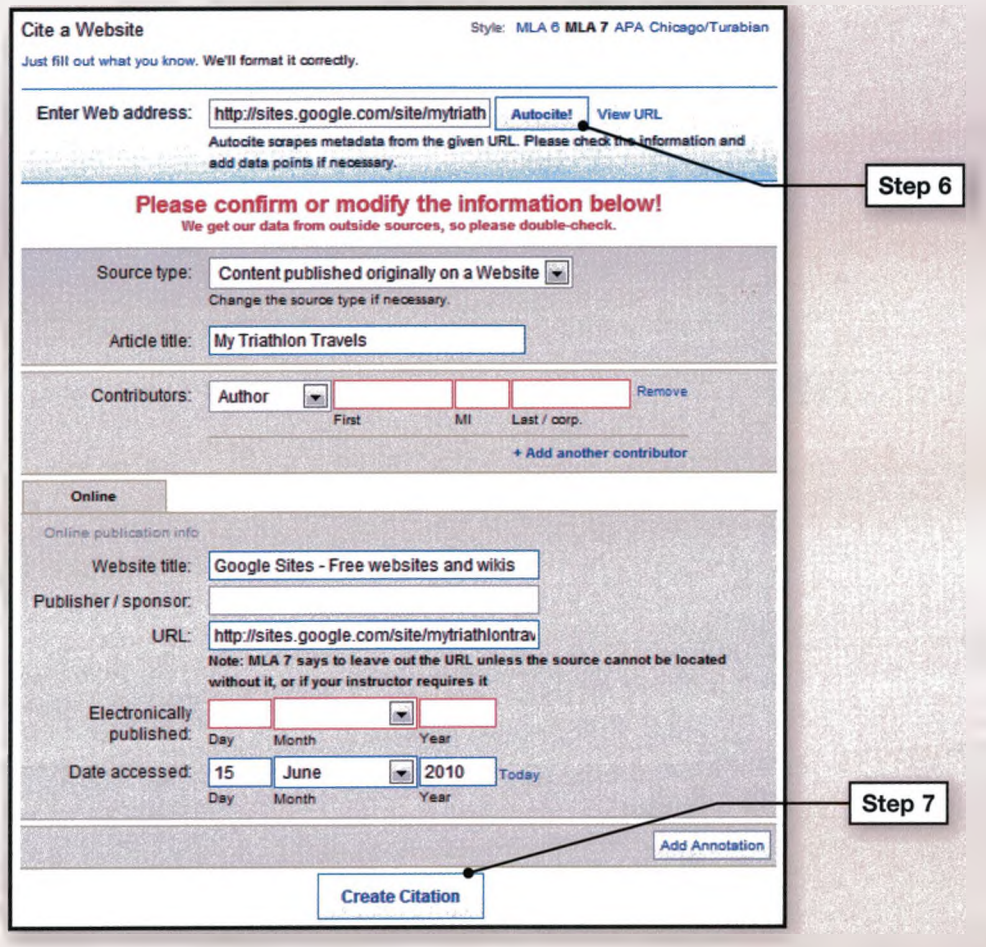


FIGURE 10-16
Autocite Feature at EasyBib

INSTANT MESSAGE

Notice that if you are doing a lot of research, you can keep adding to your citation list. As you work through your sources, keep EasyBib open and use it to record everything you use. You can (and should) periodically save your list as a Word document, or you can save the list for later access through the website.

8. On the next screen, you can see the citation as shown in Figure 10-17. Check the citation for accuracy.

9. Click the **Copy & paste** link.

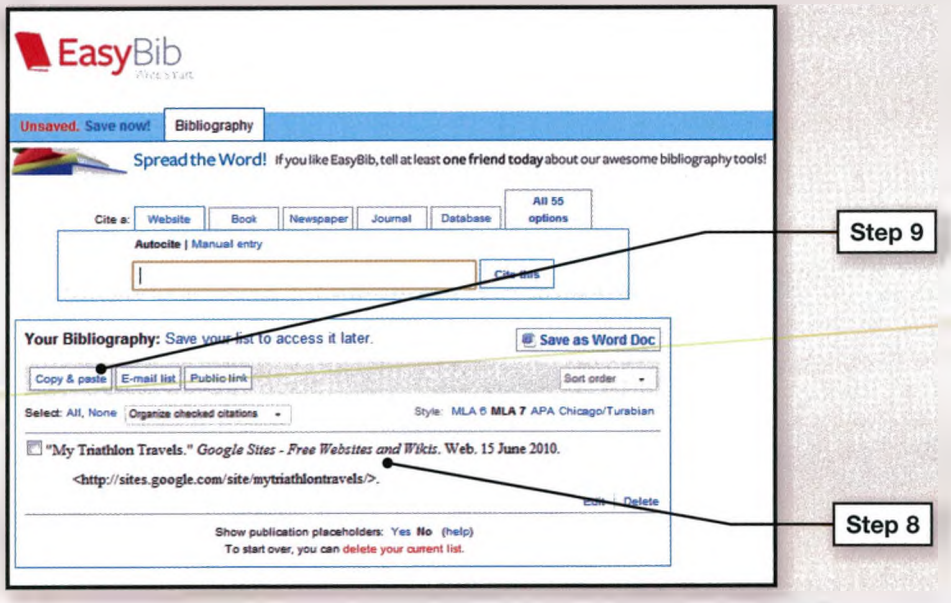


FIGURE 10-17
Data Keyed into Online Citation Form

DigiTip

With MLA Seventh Edition, the Web address is not required unless the reader would not be able to locate the source without it. Many instructors, however, may still look for a Web address, or URL; so it is safer to include it if you are unsure. If possible, ask your instructor if he or she wants the URL listed or would like to see it deleted.

10. Copy the citation, and paste it to your Works Cited page. You can use the Ctrl + C keystroke to copy the citation. (*Note:* The Web address, or URL, is optional in MLA 7, so it has not been selected. Read the DigiTip above.)

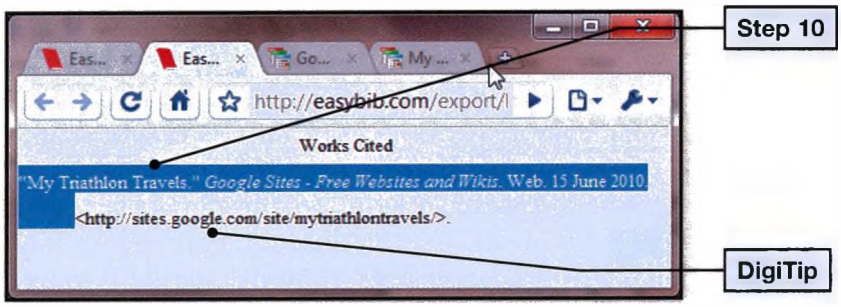


FIGURE 10-18
Citation Copied

11. Create this website citation. Make sure all of the following information is in the EasyBib form.
    Contributing author: **Gates, Bill**
    Article title: **Unleashing the Power of Creativity**
    Website title: **National Public Radio**
    Electronically published if known: **19 September 2005**
    Publishing Organization: **National Public Radio**
    Date Retrieved: **Today's Date**
    Medium: **Web**
    URL: **http://www.npr.org/templates/story/story.php?storyId=4853839**
12. Reopen your ***Report 2 Citation Practice***, and move to your Works Cited page.
13. Paste your citation below the original Bill Gates citation, and compare the two. Are there any differences?
14. Delete the old reference. Format the newly pasted MLA 7 version of the citation to match the rest of the sources cited.
15. Resave your ***Report 2 Citation Practice*** page, and then close the document.

LESSON 10-3 Format Business-Ready Reports and Documents

IN THIS LESSON YOU WILL:

Objectives

1. Design and format business-style reports.
2. Create and integrate Excel charts and graphs into a business-ready report.
3. Solve math problems in Excel.
4. Apply career-ready publishing skills to press releases.
5. Integrate WordArt graphics.

Key Term

press releases

DESIGN A PROFESSIONAL-LOOKING REPORT

Businesses create a great many reports. Businesses report to shareholders, to customers, and to employees on the progress of the company, its products, and its goals. But businesses do not use MLA, APA, or any other college styles. Why? Because business reports are tools to market, promote, and sell products and services. Business reports must look sharp, reflect the corporate image, and be visually appealing.

In the next lesson, you will publish a business-ready report. Here you have a choice: you can use Microsoft Word or Microsoft Publisher to sharpen the image of your report. Both Publisher and Word have templates available from Office Backstage from which to start your work. Pick whichever tool you feel most comfortable working with.

Activity 10-8 CREATE A CAREER-READY REPORT

1. Open either Microsoft Word or Microsoft Publisher (or another publishing tool of your choosing).
2. Select the **File** button, and pick **New**.
3. Search through installed or online templates for a good Report template. Pick a professional-looking business template, as shown in Figure 10-19. You can preview the report style by looking at the thumbnail.
4. If necessary, click the **Download** button to download the template of your choice.

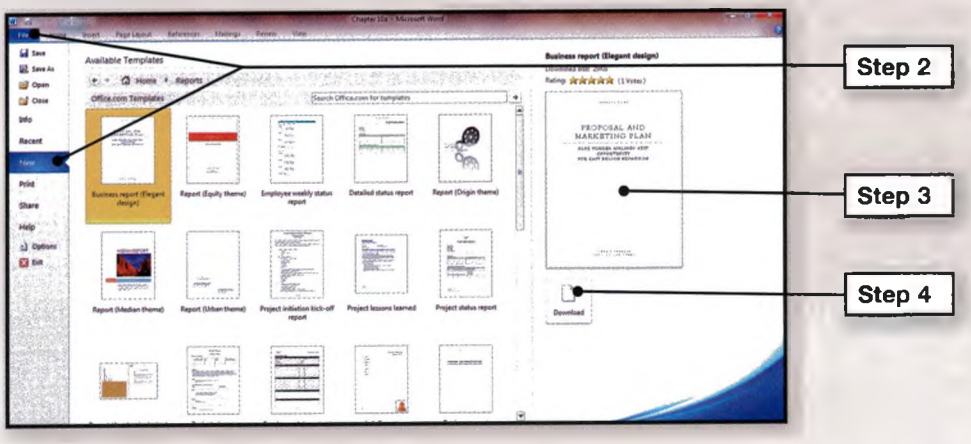


FIGURE 10-19
Templates Available to Download

5. Save your template in your ***Chapter 10*** folder with the name ***Business Report 1***, and leave it open for the next activity.

Activity 10-9 KEY A BUSINESS-READY REPORT

1. If necessary, open your ***Business Report 1*** template from your ***Chapter 10*** folder, or start with a blank document and create a report template of your own using a Style Set from the Home tab's *Styles* group. (Try Elegant or Distinctive, and then switch to a Fancy or Formal style to compare the changes.)

2. Create a professional-looking cover page for your report. Key the following information as the cover page. You may have to be creative as to where you place the information to make sure all of the text fits in a visually appealing way.

CORPORATE VIEW

THE MODEL CF85 SPEECH HEADSET

PRODUCT USABILITY REPORT

One Corporate View Drive
Boulder, Colorado 80303
Phone: (303) 555-0110
Email: mbravo@corpview.com

3. Key the following text in the body of your report. Format the text in a visually appealing way.

THE MODEL CF85 SPEECH HEADSET

PRODUCT USABILITY REPORT

OVERVIEW AND SCOPE

A usability test was commissioned by the Coporate View R&D team to look at how users interact with speech recognition headsets in business and home office environments. It was thought that a usability study might reveal how speech recognition headsets can be improved.

Participants were informed that we were researching how speech recognition was being used in an office setting. They were told that the purpose of the study was to improve speech recognition products. They were not told that we were looking only at the headset and its performance. This was done so that the participants did not become overly self-conscious of how they used the headset. There were a total of 44 participants.

PRODUCT DESCRIPTION

The headset we evaluated (Model CF85/Voice) consists of four major parts:

- **A sensitive directional microphone positioned in front of the user's mouth.**
- **A single earpiece containing a speaker that rests on the left or right ear of the user.**
- **A flexible wire band that springs over the top of the subject's head, holding the headset in place. This band can be twisted to bring the earpiece to the left or right ear.**
- **A 3-foot cord that connects the headset to any USB port on any computer.**

This headset works the same way with all major speech recognition software tested. At the time of this study, this headset configuration was the most common type of speech recognition input device used.

TESTING ENVIRONMENT

Primary testing took place in the usability lab, complete with cameras, two-way mirrors, and computerized monitoring of the participants' actions. The test moved to several office cubicles to see how employees work with the headsets in a natural setting.

Participants were asked to install the headset and its accompanying speech-recognition software.
After installation, participants were asked to discover how to use the software and the headset well enough to dictate a short letter to their supervisors.
After the letter dictation exercise, the participants were asked to do their normal work for a period of three days, using their headsets to dictate as much of their work as possible.

OBSERVATIONS SUMMARY

There were 44 total participants. Observations related to installation, online training, a dictated letter, headset adjustments, cables, cords, and other issues were recorded.

1. Headset Installation

Each participant eagerly opened the headset package and software and began to install the dictation software. Most tried to install the headset before reading the instructions. Many subjects required assistance finding where to plug in the USB headset. Twenty-seven participants had to ask an IT person for help.

2. Software Installation

Once the software was installed, the headset became a functional device on three out of four participants' computers. A full 25 percent required assistance from an IT employee to make the necessary adjustments to the configuration of their software.

3. Online Training

After installation, the participants began to learn the system. Sixty-eight percent of the participants ran the online instructional tutorial. Because that training system has many levels, some employees spent as much as two hours adjusting their systems, making modifications, and adjusting the software to fit their unique accents and voice patterns.

4. Use of Command Card

As the participants began to dictate their first letter, they were excited and seemed to be having a lot of fun. They did have some difficulty remembering commands, particularly those related to paragraphing, quotations, and capitalization. The command card accompanying the software was inadequate and hard to follow. A total of 48 percent complained about the command card. For this group, trial and error became the most-used form of learning during dictation of the letter.

5. Use of Mouse

We noticed almost immediately that the mouse was used frequently to help edit and correct errors in the dictation. Ninety-seven percent used the

mouse to help manage their software when they couldn't remember the voice command to accomplish a task.

6. Cables, Cords, and Other Objects

A full seventy-seven percent reported frustrations with the headset cord. The mouse cord and the headset cord became entangled and eventually twisted around each other several times. The cords also became entangled with the multimedia speakers found on some computers.

Cords became trapped under objects on the desktop. In one case, a cord was caught inside a three-hole punch and was accidentally cut in half.

We also noticed that as subjects became more comfortable with the speech recognition technology, they began to relax and lean back in their chairs to dictate. The cord was too short for this kind of use. Participants would slide their rolling chairs or lean back, stretching the cord to its limits and pulling the headset from their heads.

Many subjects found the headset cord interesting to play with. They began to wrap the cord around their fingers, creating interesting designs between their fingers as they dictated.

After one or two days, objects such as staplers, hole punches, papers, reports, reference books, and even drink glasses ended up on the headset or on the cord. Rather than move the objects, most participants pulled on the cord in an attempt to free it from the obstruction. Several times the headset was close to being damaged or pulled out of the USB port of the computer. In one case, a swift pull to clear the headset cord resulted in a drink being tipped over, soaking a keyboard and the participant's report. Users would often forget they were wearing the headset, and as they got up from their chairs, the headset would be ripped from their heads.

CONCLUSION AND RECOMMENDATION

Speech recognition is an exciting technology that seventy-three percent of our participants enjoyed using. However, the current headsets do not meet professional office usability standards. The cords are annoying and frustrating when the headset cord becomes entangled on a busy employee's desk.

We recommend that a wireless USB-connected headset be developed and tested on the same participants. A wireless headset could increase the use of speech by another 30 percent.

4. Resave your ***Business Report 1***, and leave it open for the next activity.

INSERTING EXCEL GRAPHS AND CHARTS

Microsoft Office includes a group of applications that work together. This means that graphs, charts, text, and images created in one application can be used in another application. For example, charts can be created in Excel and copied to Microsoft Word or Microsoft Publisher.

In Figure 10-20, a chart has been created and inserted into ***Business Report 1***. In Activity 10-10, you will learn how to use Excel to create charts and graphs and then insert them into your ***Business Report 1*** document.

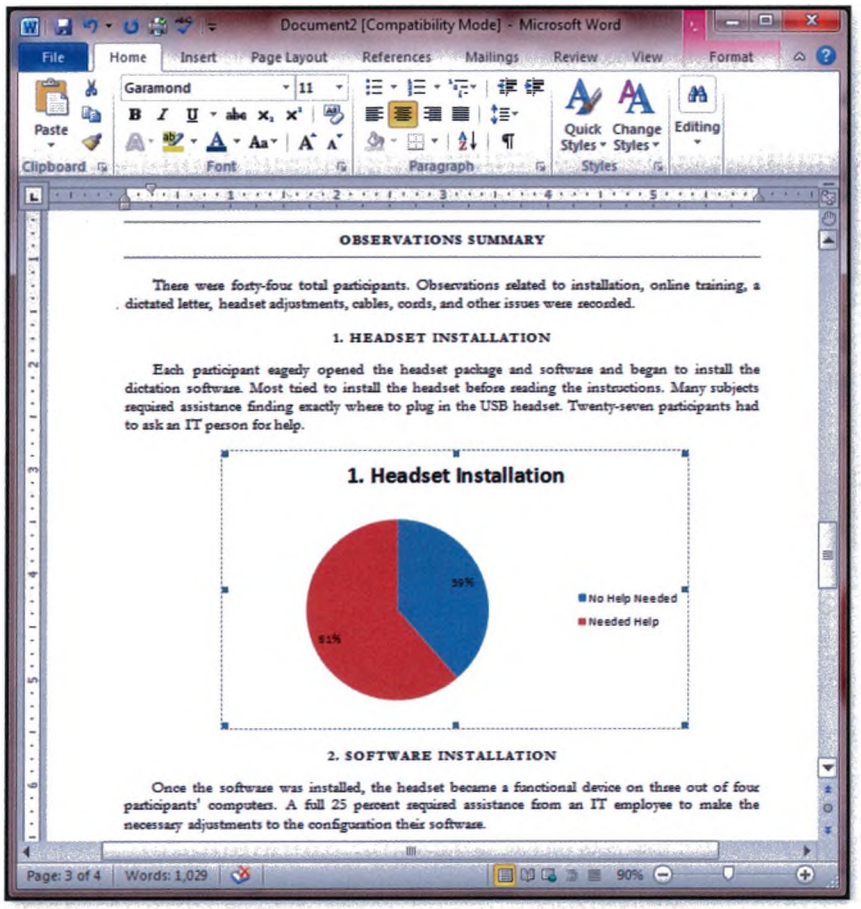


FIGURE 10-20
An Excel Chart in a Word Document

USE EXCEL TO HELP SOLVE MATH PROBLEMS

Each of the numbered sections in the *Observations Summary* of ***Business Report 1*** has a mathematical problem. Use Excel to solve each problem and create a chart or graph that displays the answer. Activity 10-10 will walk you through the first graph, but for charts 2–6, you are on your own. (You may work on this project as a team if your instructor approves.)

Activity 10-10 CREATE AND INSERT GRAPHS AND CHARTS INTO A REPORT

1. If necessary, open ***Business Report 1*** from your ***Chapter 10*** folder. Skip down to the *Observations Summary* section of the report. Read the first problem in section *1. Headset Installation*.
2. Open Microsoft Excel. Solve the problem described in *1. Headset Installation* for the 44 participants.
3. In column A, key titles that explain your data. In column B, key the data you wish to represent, as shown in Figure 10-21. Select the data you just keyed.

4. Choose the **Insert** tab, and pick an appropriate type of chart from the *Charts* group. In Figure 10-21, a **Pie** chart has been selected.

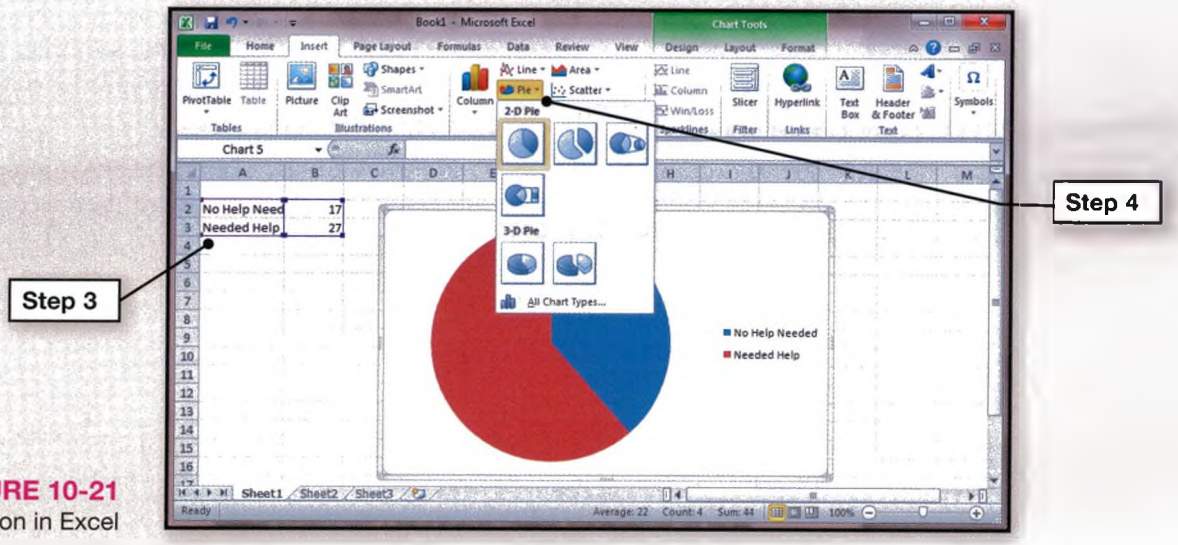


FIGURE 10-21
Chart Creation in Excel

5. Select the chart. Alter the layout of your chart by clicking the **Design** tab followed by **Quick Layout** from the *Chart Layouts* group. Choose a chart layout style that will allow headings and that shows percentages. (See Figure 10-22.)

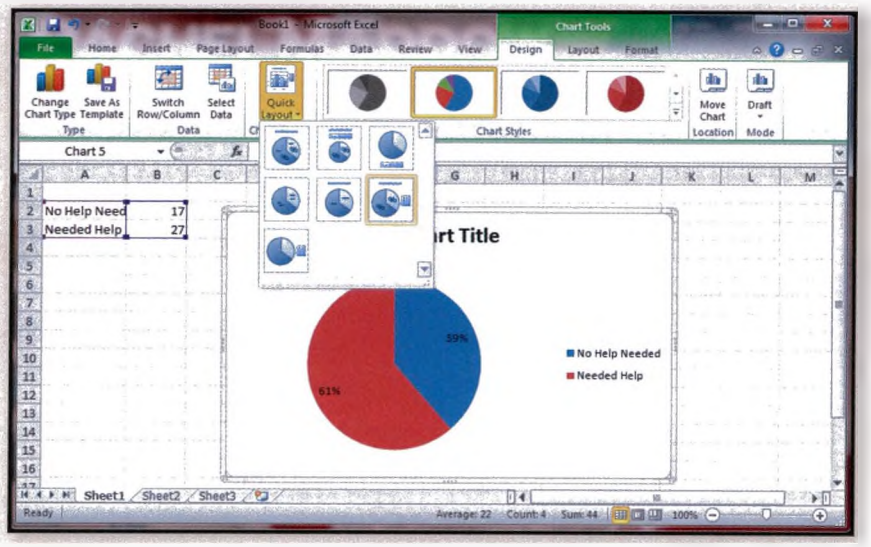


FIGURE 10-22
Chart Modification

6. Key the title **1. Headset Installation**.

7. Pick the **Home** tab. Select the chart, and copy it by picking the **Copy** down arrow in the *Clipboard* group and selecting **Copy as Picture** as seen in Figure 10-23. In the Copy Picture dialog box, select **As shown in screen** in the *Appearance* field and **Picture** in the *Format* field, then click **OK**.

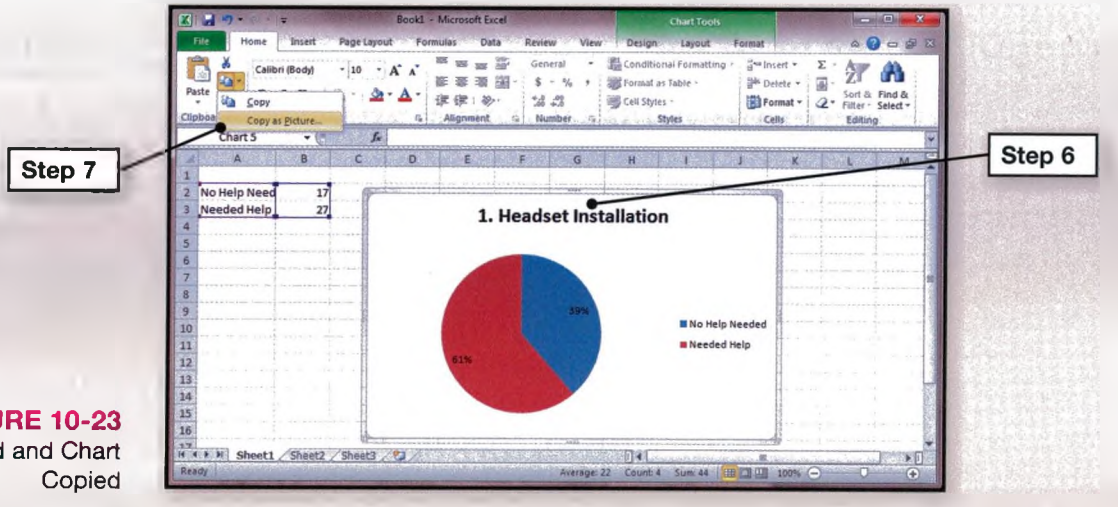


FIGURE 10-23
Chart Title Added and Chart Copied

8. Switch to the ***Business Report 1*** file that you created in either Microsoft Word or Publisher.

9. Paste the chart at the end of the *1. Headset Installation* section of your business report. (See Figure 10-20.)

10. Create five more charts for sections 2–6. You need a chart for each of the numbered sections in the report:
    2. *Software Installation*
    3. *Online Training*
    4. *Use of Command Card*
    5. *Use of Mouse*
    6. *Cables, Cords, and Other Objects*

11. Solve the five additional problems, calculating the percentages for 44 participants.

12. Create a pie chart or another graph that represents the data. Copy and paste the charts at the end of each of the sections, as explained in steps 2–9.

13. Save your final report as ***Business Report 2 with Charts*** in your ***Chapter 10*** folder, and then close the file.

DESIGN A PROFESSIONAL-LOOKING PRESS RELEASE

As you are probably aware by now, there are a lot of DTP tools in Microsoft Word and a lot of word processing tools in Microsoft Publisher. Whichever tool you use, you will have a lot of power at your fingertips to create impressive-looking business documents.

Some careers require the use of word processing and publishing software every day! But even if those tools are used only now and then, many professionals—journalists, corporate communications and public relations specialists, marketing and sales managers, customer support representatives, administrative assistants, team managers, and others—must master them.

In the next few activities, you will apply some of the tools while creating press releases. This will give you a chance to practice ... and practice ... and practice ... to polish your skills.

Activity 10-11 RESEARCH PRESS RELEASES



Press releases allow corporations, government agencies, and nonprofit organizations to share information with the press, websites, customers, and constituents. Press releases are produced quickly. Increasingly, they need to be published for online and print distribution.

1. Access the Corporate View intranet's Style Guide page, and choose the **Press Releases** link. (*Note:* To locate the Style Guide, open the Corporate View intranet, choose **Corporate Communications** from the welcome screen, and then choose **Style Guide**.)
2. Read the information carefully. You will need to follow its instructions in the next activity. Take any notes that will be important for you to remember. Study these sections:
   Format Example
   The Language of a Press Release
   Sample Press Releases
3. Choose **The Language of a Press Release** link, and read the information. Open Microsoft Word, and answer these questions in your notes:
   a. Keep your wording as simple and _____ as possible. Your release should never read like _____ ad copy.
   b. Generally, what types of paragraphs and sentences should be used? Specifically, how long should the paragraphs and sentences be?
   c. How should verbs and adjectives be used in a press release?
   d. What is meant by a neutral tone?
4. To get a feel for how press releases are written, choose the link to the **Sample Press Releases** and read a few examples. In your notes, list the title of the sample press release you believe best communicates its message to the audience. Explain why you have come to this opinion.
5. Save your notes as ***Preparing Press Releases*** in your ***Chapter 10*** solutions folder, and then close the document.

Activity 10-12 CREATE AND FORMAT A PRESS RELEASE

1. Create a press release by keying the following text using Microsoft Word. Design the press release using your own creativity. (You can use a template or styles to create a great-looking press release that can be printed or posted online.)

   PRESS RELEASE
   Contact: Maria Bravo
   One Corporate View Drive
   Boulder, Colorado 80303
   Phone: (303) 555-0110
   Email: mbravo@corpview.com

NEW WEB PUBLISHING GROUP

BOULDER, COLORADO, August 9, 2012. PublishView, a division of Corporate View, is pleased to announce its new Web publishing group. The Web publishing group will help PublishView more effectively meet the needs of its customers and employees with online information and support for its many products and services.

The Web publishing team will be responsible for developing and publishing several online magazines for the various divisions of Corporate View. For example, TravelView will launch a special travel Webzine. The publication, called Smart Travel Online, will help Corporate View customers, partners, and employees plan and get the most out of their business trips.

PublishView's first online creations should appear during the third quarter of this year.

---

2. Save your finished document as ***Press Release 1*** in your ***Chapter 10*** solutions folder, and leave it open for the next activity.

EXPERIMENT WITH WORDART

WordArt allows you to create graphical banners that can be used in many documents. Do you have a project, a report, an essay, an assignment, or a letter that could be improved with the addition of some WordArt? Give it a try by creating a corporate WordArt banner for your ***Press Release 1*** document.

Activity 10-13 CREATE A TEXT BANNER USING WORDART

1. Open Microsoft Word if necessary, and ***Press Release 1*** from your ***Chapter 10*** folder.
2. Pick the **Insert** tab, and then choose **Header** followed by **Edit Header**.
3. Choose the **Insert** tab again and then **WordArt**. Pick a style from the gallery as seen in Figure 10-24.

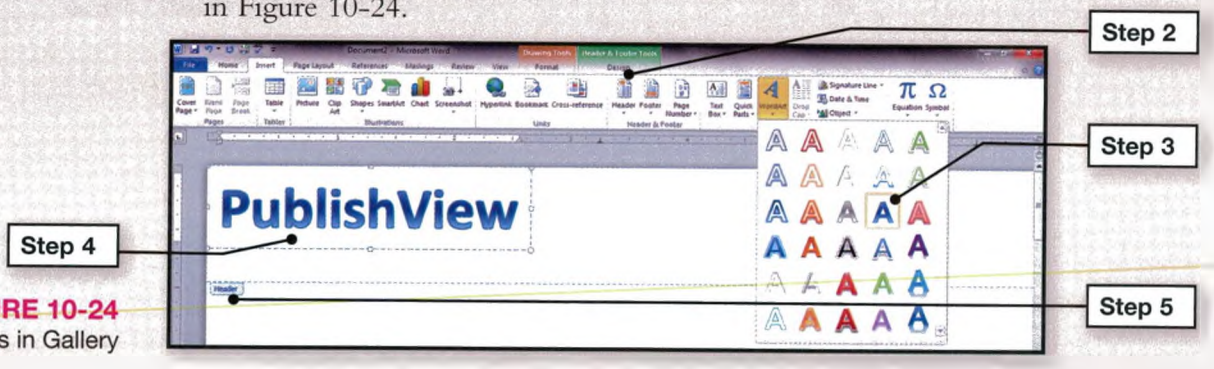


FIGURE 10-24
WordArt Styles in Gallery

4. Key **PublishView** in the header box as seen in Figure 10-24.
5. Double-click or tap the **Header** icon, marked in Figure 10-24, to close the header.
6. Save this document as ***Press Release 2 Add WordArt*** in your ***Chapter 10*** folder, and then close the file.

INTO THE CLOUD

The history of Microsoft Word demonstrates why cloud computing is so important to the future of technology. Word has historically been installed as a stand-alone PC program on a computer's hard drive. This locked the many versions of Word in time. The only way to upgrade was to buy the next version. Some people are still running Word 97 or earlier versions of Word.



iStockphoto.com/spxChrome

A local installation of Word is fine if you need a state-of-the-art word processing program and do not wish to connect to the Internet to run the application. But stand-alone applications get old and obsolete very quickly. Certain parts of Word can fall behind the times, and the user may not even be aware of it.

Consider MLA guidelines, for example. MLA has updated its citation styles lately. Many copies of Microsoft Word are old and have not accommodated the changes. Copies of Word stay on hard drives for years, plugging away reliably but without the ability to apply updates and changes to, for example, MLA in-text citation rules quickly and easily.

Apps that live in the cloud deliver updates as soon as changes are made. Online apps are constantly improved and upgraded without a user having to install new software or pay for unnecessary upgrades.

Microsoft is trying to address this problem by placing a scaled-down version of Word online. This may help Microsoft migrate Word from a local hard drive application to a fully powered online app. We will show you how to access online versions of Microsoft Office products in Chapter 14.

Discussion:

1. What are the advantages of having your word processing program installed on your hard drive?
2. What are the advantages of having your word processing application run from the cloud?
3. How much would you expect to pay for a word processing program that must be downloaded and installed on your hard drive?
4. How much are you willing to pay for an online word processing application?

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 10-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools*.

Building Up: Your Math Skills

Exercise 10-2 CALCULATING AVERAGES

Imagine that after a recent presentation, you asked your audience to complete evaluation forms. Audience members scored each item on a scale of 1 to 10. Evaluators were identified by letter because the evaluation was anonymous. Now you must compile and average the ratings to determine an overall evaluation score. You may want to use a spreadsheet for this exercise.

1. Calculate the average score given by all evaluators for each item.
2. Calculate the average score given on all the items by each evaluator.
3. Find an overall evaluation score by averaging the average scores for the ten evaluators.

Evaluation Items	Evaluators									
	A	B	C	D	E	F	G	H	I	J
The coverage of the topic met my expectations.	8	9	7	9	10	10	9	7	8	9
The topic was of interest to me.	6	10	8	10	8	9	7	9	8	8
The length of the presentation was appropriate.	9	9	10	10	10	9	8	6	10	10
The presenter addressed the topic effectively.	8	9	8	9	8	9	9	7	10	10
The concepts were presented clearly.	8	9	8	9	8	9	9	7	10	10
The presenter related the information to my experiences.	6	8	9	9	7	7	7	5	8	8
The information presented will be useful to me.	6	8	8	8	8	7	8	6	7	9
The visuals were helpful and appropriate.	9	10	9	9	8	9	8	7	10	10

4. Save your answers as ***Exercise 10-2*** in your ***Chapter 10*** solutions folder.

Building Up: Your Language Arts Skills

Exercise 10-3 FROM THE EDITOR'S DESK: CONFUSING USAGE

1. Open your browser software. Use the bookmark in your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications > From the Editor's Desk**.)
2. Choose the **Confusing Usage** link followed by the **Weather, Whether; Among, Between** link. Copy and paste the questions to a word processing document, and answer them. (Read the information provided on the Web page, and follow the directions for completing this practice exercise.)
3. Check your answers by comparing them with those on the bottom of the intranet page.
4. Save your work in your solutions folder as ***Exercise 10-3 Confusing Usage***.

Career Clusters



Transportation, Distribution, and Logistics

Logistics has often been called the science of transport and supply. Logistics brings together all of the supplies necessary to keep manufacturing plants working efficiently. When Ford Motor Company makes a car, all the parts that go into the car must be made (often in another state or country) and sent to the manufacturing plant at the right time—not too early and not too late. It would be very costly to hold up the manufacture of thousands of cars because a shipment of headlights was late or went to the wrong place!

And after a product has been made, it must be transported to customers. New products can ship on trucks, trains, planes, and ships. The transportation of products keeps the economy moving. Without logistics, the economy would be paralyzed. Supermarkets would run out of food. Medicines and surgical supplies at hospitals and pharmacies would soon run out. Most of the products we normally buy would disappear from store shelves.

Review several career options and sample salaries for this career cluster in Table 10-2.

Position and Yearly Salary		Position and Yearly Salary	
Aircraft Cargo Handling Supervisor	$40,720	Bus Driver	$29,420
Ship Captain	$69,660	Shuttle Car Operator	$76,390
Manager of Transportation Vehicle Operators	$44,210	Tractor-Trailer Truck Driver	$33,690
Transportation Inspector	$46,530	Rail Yard Engineer	$40,130
Airline Pilot	$99,400	Local Delivery Truck Driver	$25,630
Ship Loader	$33,880	Crane Operator (Loading Ships)	$36,770
Air Traffic Controller	$83,350	Train Locomotive Engineer	$47,300
Freight, Stock, and Material Mover	$21,170	Sailor	$30,270

TABLE 10-2 Career Cluster: Transportation, Distribution, and Logistics

Exercise 10-4 LOGISTICAL PLANNING: SHIPPING IPADS CHEAPLY AND ON TIME

In this exercise, find both the fastest method and the least costly method of shipping a product from your home to Mason, Ohio. This is a competition. You will be competing against the members of your class to see who can solve this logistical problem with the lowest cost of shipping. Solve the following logistical problems:

Shipment 1

Two iPads must be sent to Keisha Takashi at her office by the next business day. Keisha needs the computers to make a presentation to a Human Resources training team. Each iPad has the following specifications, which may be helpful as you work out the price of shipping:

Height: 9.56 in. (242.8 mm)

Width: 7.47 in. (189.7 mm)

Depth: 0.5 in. (13.4 mm)

Weight: 1.6 lb (0.73 kg) Wi-Fi + 3G model

Assume the package is being sent from your school address or the nearest package drop-off location. The package should be sent to:

Ms. Keisha Takashi

5191 Natorp Boulevard

Mason, OH 45040-7980

(513) 555-0100

Shipment 2

Robin Mills also ordered a single iPad but is in no hurry to receive it. She wants to save money on shipping costs. Her package must be delivered within two or three weeks. The package should be sent to:

Ms. Robin Mills

5191 Natorp Boulevard

Mason, OH 45040-7980

(513) 555-0110

1. This is a competition. Individually, not as a team, carefully review the description for each shipment.
2. On your own, choose the shipping service (U.S. Postal Service, FedEx, UPS, DHL, or another private mail delivery company) that will deliver the packages in the time required for the lowest cost. Indicate the delivery method/company, the delivery time you choose, and the cost of shipping each package.
3. Get together with your team, and see who came up with the best shipping deals. Who can get the products delivered at the lowest cost in the allotted time?
4. Save the information as ***Exercise 10-4*** in your ***Chapter 10*** solutions folder.

21st-Century Skills

Initiative, Self-Direction, & Productivity

Exercise 10-5 A MAJOR ACADEMIC RESEARCH PAPER

Research papers are a fact of academic life. Every research paper is a major project that requires personal initiative, self-direction, and hard work. However, after you are finished, you will have learned a lot and created something to be proud of.

Do you have a research paper due in another class? If so, work with your instructors to see if they will give you credit in that class and in your DigiTools class for the same paper!

Sound too good to be true? Not really. Your teachers are looking at the paper for different criterion on which to calculate your grade. Here is how it could work.

- Assume you have a paper due in U.S. History on the Civil Rights Movement or the Cold War. Your social studies instructor will evaluate the depth of your research and your understanding of the assigned topic.
- Meanwhile, your computer skills instructor will evaluate whether you have used proper formatting, keyed in-text citations correctly, and added a suitable Works Cited page. He or she also will look to see whether you have used the spell checking and grammar tools effectively.

With what you have learned in this book, you can certainly meet the goals of both instructors with the same research paper. Ask your instructors if you can count this research paper as a "cross-curricular assignment." Teachers love it when you use terms like *cross-curricular*, which simply means that the assignment covers learning goals in two or more subjects at the same time. Talk about efficiency!

Regardless of the subject, however, every instructor will want you to address the *Eight Keys of Dynamic Digital Communication* in your work. Before you begin, refer back to Table 4-1 on page 117 to review these basics that are sure to result in the best possible grades in both classes:

- Message & Purpose
- Audience & Impact
- Boundaries & Guidelines
- Research, Take Notes, & Plan
- Create from General to Specific
- Readability, Style, & Personality
- Accessibility & Visual Appeal
- Proofing & Accuracy

Save a copy of your research paper in ***Chapter 10*** solutions folder under the name ***My Major Research Paper***.

Creativity and Innovation

Exercise 10-6 CREATE AN EXCITING COVER PAGE FOR YOUR RESEARCH PAPER

You will go to a lot of work to create an awesome research paper in Exercise 10-5. A project like that needs an impressive cover. Use your desktop publishing skills to design a worthy cover for your research paper. Use clip art, photos, or images on your cover page. WordArt may also come in handy.

Save your cover as ***Exercise 10-6*** in your ***Chapter 10*** solutions folder.

Communication and Collaboration

Exercise 10-7 CREATE A PRESS RELEASE HIGHLIGHTING SCHOOL SUCCESSES

In Exercise 9-6, you created a "Madison Avenue" ad campaign for a school, church, or community event that needed support. Now that the event is over, prepare a newsletter highlighting its success! (Did you think to get pictures of it?)

If that event is not over yet, consider whether there is another school event or one in your church or community that goes underreported. Wouldn't it be nice to get some media attention for the event? This is that time. Shine a light on these successes.

1. Identify an event or accomplishment that has gone unnoticed. It may even be one that you participated in. Time to step up to the plate and prepare and publish a press release about it.
2. Write a press release about the event much like a journalist writes for a local newspaper.
3. Design and create a press release highlighting the successes of the event. Decide whether you want to use a template or would rather build the press release from scratch.
4. If possible, add images about the event so people can see as well as read about it.
5. Save your publication as ***Exercise 10-7*** in your ***Chapter 10*** solutions folder.

Exercise 10-8 USE DTP TO CREATE AN INFORMATIVE BROCHURE



Now that you have all the information about your school, church, or community event, why not make a tri-fold brochure for the event using DTP? If the event is over, you can use pictures and information from this year's event to create a brochure for next year.

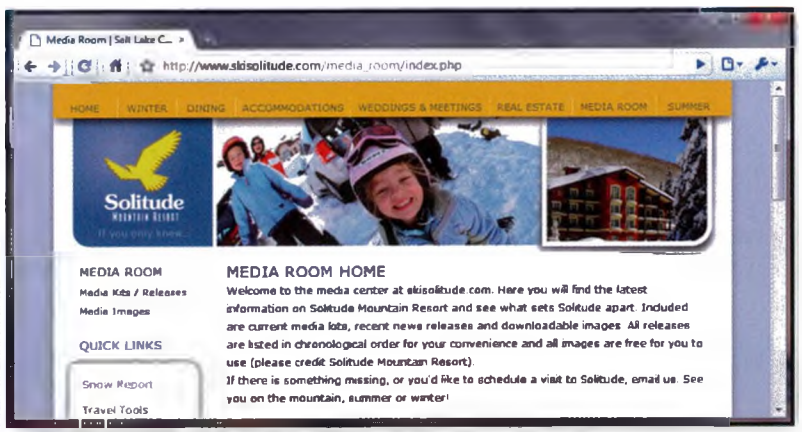
1. Go online and see if there is a template in your DTP software that would help you create a tri-fold brochure.
2. Use the six panels of the tri-fold brochure to clearly explain the event, place images attractively, and add details about the past success of this event. Feel free to reuse information from Exercises 9-6 and 10-7.
3. Save your brochure as ***Exercise 10-8*** in your ***Chapter 10*** solutions folder.

Chapter 11

Website Creation Skills

Lesson 11-1 Learn How HTML Code Works
Lesson 11-2 Apply XHTML and CSS Attributes and Values
Lesson 11-3 Create Hyperlinks
Lesson 11-4 Add Images to Web Pages

REVEALING THE SECRETS OF THE NET



(Courtesy Solitude Mountain Resort © 2010 Source: www.skisolitude.com)

FIGURE 11-1 Solitude Mountain Resort must create Web pages that compete with other ski resorts.

In this chapter, you will take a look at the hidden codes that make the Internet work. This may sound intimidating and technical, but it is not scary in the least, as you will soon see.

Let's start by looking at an example. Solitude Mountain Resort uses its website to reach out to skiers, boarders, and tourists. (If necessary, review Chapter 2.) Solitude even has a special online "media room" it uses to provide information for the powerful tourism media. The tourism media helps promote winter and summer recreation at Solitude. Accurate, easily accessible information must be posted to reach this important audience. The Web page for the media must be sharp, effective, and informative, as seen in Figure 11-1.

Creating effective Web pages requires a mountain of cryptic codes. For instance, it takes all the code seen in Figure 11-2 to create the Web page seen in Figure 11-1. These codes explain to a Web browser how to display a Web page.

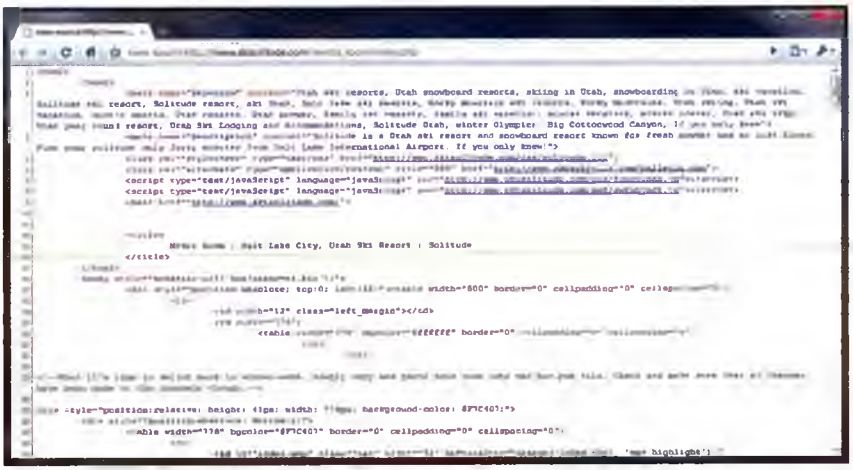


FIGURE 11-2 Codes for Web Page Seen in Figure 11-1

Most people do not know anything about the codes that lurk beneath a Web page. After completing this chapter, you will be among those who do understand what is going on behind the scenes of every website.

LESSON 11-1 Learn How HTML Code Works

IN THIS LESSON YOU WILL:

Objectives

1. Key starting tags and closing tags.
2. Create HTML code and save it correctly.
3. Integrate levels of headings into Web pages.
4. Create unordered and ordered lists.

Key Terms

- angle brackets
- Cascading Style Sheets (CSS)
- closing tag
- compiled
- Flash
- HyperText Markup Language (HTML)
- Java
- JavaScript
- nested
- opening tag

WHY LEARN HTML?

The codes in Figure 11-2 are converted, or **compiled**, by Web browsers into the page seen in Figure 11-1. The code in Figure 11-2 is a combination of languages like **HTML**, **JavaScript**, **Java**, **Flash**, and **CSS** that do different but related things on a Web page:

- *HTML:* Stands for **HyperText Markup Language**. HTML tags give instructions to a Web browser that determine the look and feel of a document on the Internet.
- *Tags:* The term used to describe the HTML codes within angle brackets that send commands to the browser. Sometimes single tags can be used, such as <br>, but more often tags appear in pairs consisting of **opening** and **closing** **tags**.
- *CSS:* Stands for **Cascading Style Sheets**. An HTML enhancement that brings similar styles and color schemes to websites with multiple pages.
- *Java:* A programming language often used for Apps development.
- *JavaScript:* A Java-like scripting language used to create mini-apps, gadgets, and special effects.
- *Flash:* A high-impact multimedia tool.

All Web browsers read and understand the Internet languages explained above. However, HTML is the foundation language and the original Web page development tool. By learning HTML you will:

- Develop a deeper understanding of how the Web works.
- Troubleshoot Web pages when little errors occur.
- View other pages and learn how they achieved certain effects.
- Explain how HTML and other tools like Flash, JavaScript, and CSS work together.

HOW HTML WORKS

HTML is the starting point for any online developer, and it is where you should start too. With a few simple HTML tags, you can determine the placement of colors, pictures, apps, gadgets, and backgrounds on Web pages. If you key your tags correctly, Web browsers will display your pages properly anywhere in the world.

To understand how HTML tags work, analyze the example shown below. HTML tags usually appear in pairs, enclosed in **<angle brackets>**. If you want to center a title on a Web page, all you need to do is key the angle brackets and the center command like this:

** TravelView Mountain Resort **

Notice that there is an opening tag (sometimes called a starting tag), , and a closing tag (sometimes called an ending tag), . The only difference between the two is a slash (/) in the closing tag. form a pair of tags, and if you have not guessed already, anything between these tags will be centered on the page. Anything outside these tags will not be affected by the command.

WHAT TO USE

Any text editor will work for creating HTML tags. Our recommendation is to use the most basic tools available. Why? Well, the advanced applications (like Word and Publisher) add secret tags of their own that can confuse a Web browser and complicate your learning of basic HTML.

In Windows, use Notepad. On a Macintosh, use SimpleText. These text editors are easy to use and available on most computers. If you start creating tags with a basic text editor, you will quickly learn how HTML works.

Activity 11-1 CREATE HTML CODE

INSTANT MESSAGE

Ask your instructor for advice on what text editor you should use before you jump in and waste time entering tags in the wrong text editing tool.

1. Open Notepad, SimpleText, or your favorite text editor.
2. Create a new document if necessary.
3. Key the tags shown in this order. Do not leave out a single angle bracket (<) or slash (/). Every character and letter is important.

```
<html>
<head>
<title></title>
</head>
<body>
<center></center>
<p></p>
<p></p>
<p></p>
<p></p>
<p></p>
```

INSTANT MESSAGE

In the past, HTML was not case-sensitive. You could use uppercase <TAGS>, lowercase <tags>, or mixed <TagS>. This is no longer the case. With HTML 4.01 and XHTML 1.0 standards, new and stricter methods have been adopted. From now on, use lowercase <tags>.

INSTANT MESSAGE

If you are using Notepad, set the word wrapping feature. Word wrapping makes a long line of text easier to view. To set the feature, select the Word Wrap option from the Format menu. Your word wrap settings will have no impact on your HTML code or the way a browser displays a page.

```
<p></p>
<p></p>
</body>
</html>
```

4. Key text between the tags, as shown below. (Notice that the new text to be keyed is shown in bold.)

```
<html>
<head>
<title>TravelView Mountain Lodge</title>
</head>
<body>
<center>TravelView Mountain Lodge Media Center</center>
<p>Our Mountain Retreat</p>
<p>Nestled in a tree-filled canyon just a few miles from Boulder, Colorado, the Lodge is an emerging destination resort. The award-winning accommodations are designed for the business traveler taking advantage of a little R&R. Resplendent Rocky Mountain Resorts magazine gave us a four-star recommendation and said, "The Lodge places you in the middle of a winter and summer sports paradise."</p>
<p>Activities for Every Season</p>
<p>Winter</p>
<p>Spring</p>
<p>Summer</p>
<p>Fall</p>
</body>
</html>
```

5. Leave your text editor open for Activity 11-2, where you will learn how to save HTML files.

SAVE AND VIEW YOUR HTML PAGE

HTML documents are text files. This means that they are saved in the simplest way possible. For the most part, in text files, only the characters you see on your keyboard are saved. All of the sophisticated word processing commands are erased, leaving just the characters that browsers understand.

Saving as text only allows HTML files to move quickly over the Web. HTML files are text files with an .html or .htm extension. The extension signals to a Web browser that this is an HTML text file. The .htm extension is like putting up a sign saying, "Hey, browser, read me. I'm an HTML document."

1. To save an HTML/text file in Notepad, click **File** on the menu bar and then click **Save As**.
2. Navigate to your ***Chapter 11*** solutions folder.
3. Click the **Save as type** arrow; click **All Files**.
4. Key **one.htm** to name your file as shown in Figure 11-3.
5. Click **Save**.

INSTANT MESSAGE

Ask your instructor if you need help saving an HTML/text file on your unique server setup or with your specific text editor.

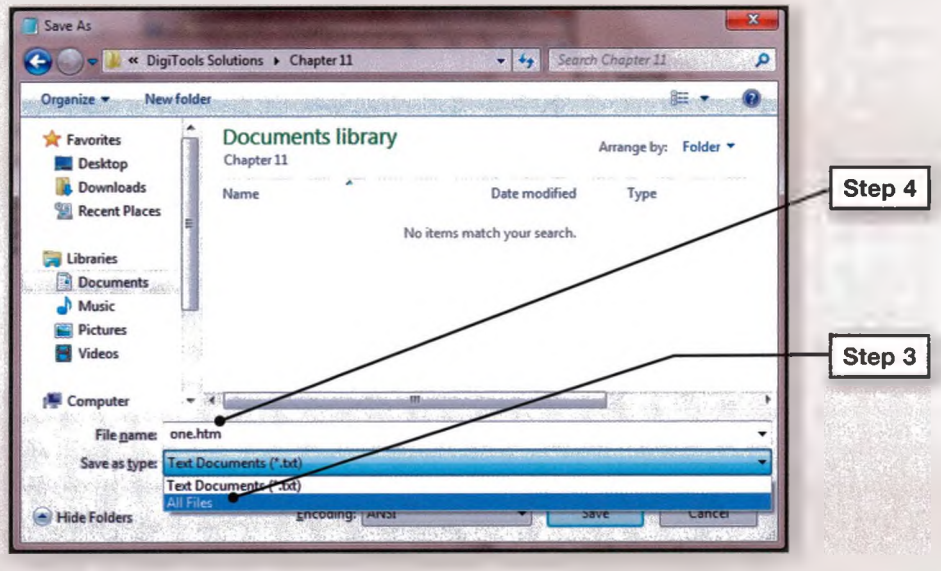


FIGURE 11-3
Save As Dialog Box

6. For *Internet Explorer,* follow the directions below. *Firefox* users should skip to Step 7.
   a. Start the Internet Explorer Web browser.
   b. Click **Tools** on the toolbar, point to Toolbar, and then click **Menu Bar** as seen in Figure 11-4.

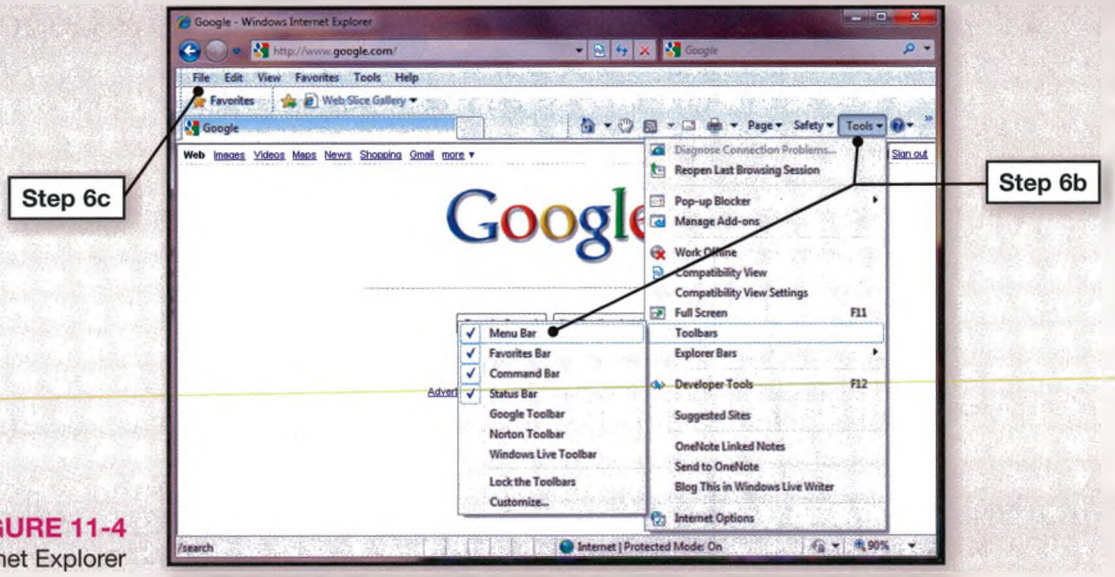


FIGURE 11-4
Menu Bar in Internet Explorer

c. Click **File** on the Menu Bar, and then click **Open**.
d. Click the **Browse** button, and then navigate to the ***Chapter 11*** solutions folder where you saved your ***one.htm*** file.
e. Select **one.htm** in the File List dialog box.
f. Click **Open**, as shown in Figure 11-5.

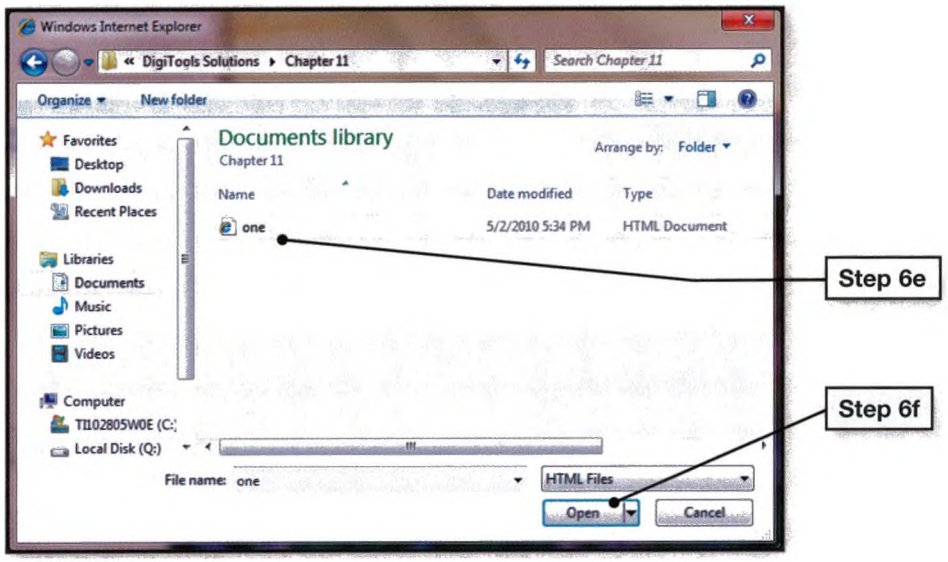


FIGURE 11-5
Opening Files in Internet Explorer

g. Click **OK** in the Open dialog box.

7. For *Mozilla Firefox,* follow the directions below. *Internet Explorer* users, who have completed Step 6, should skip to Step 8
a. Start the Firefox Web browser.
b. Click **File** on the menu bar and then click **Open File** as shown in Figure 11-6.

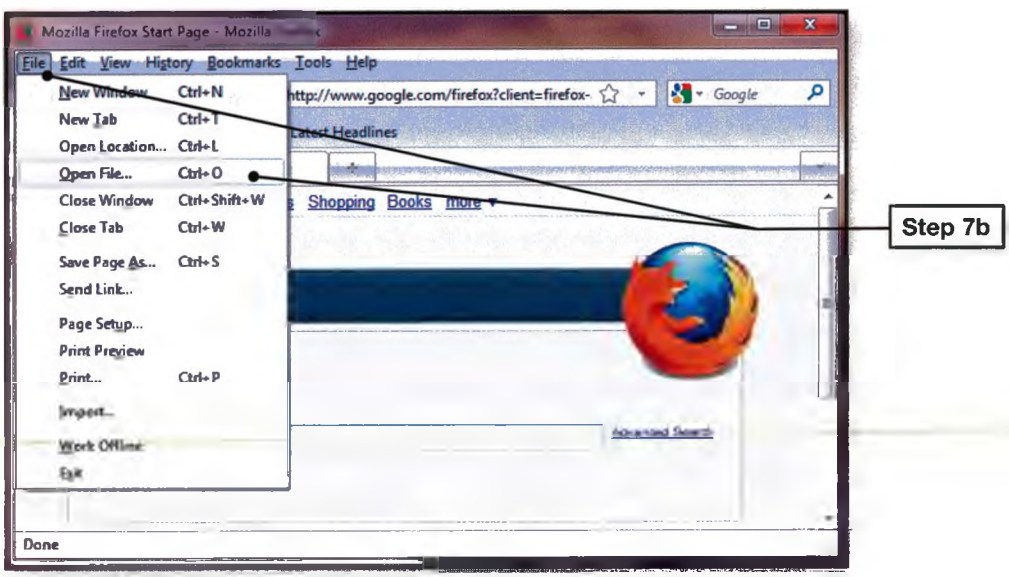


FIGURE 11-6
Finding Files in Firefox

c. Click the **Files of type** arrow, and then click **All files** if it is not already selected.
d. Browse to the folder where you saved the ***one.htm*** file.
e. Select **one.htm** and then click **Open** as shown in Figure 11-7.

INSTANT MESSAGE

Users may see a "Pop-Up Block" or some other error message that may block the opening of the page. Simply click the option to allow the content to be viewed. If you need help, ask your instructor or read the help files for your specific browser.

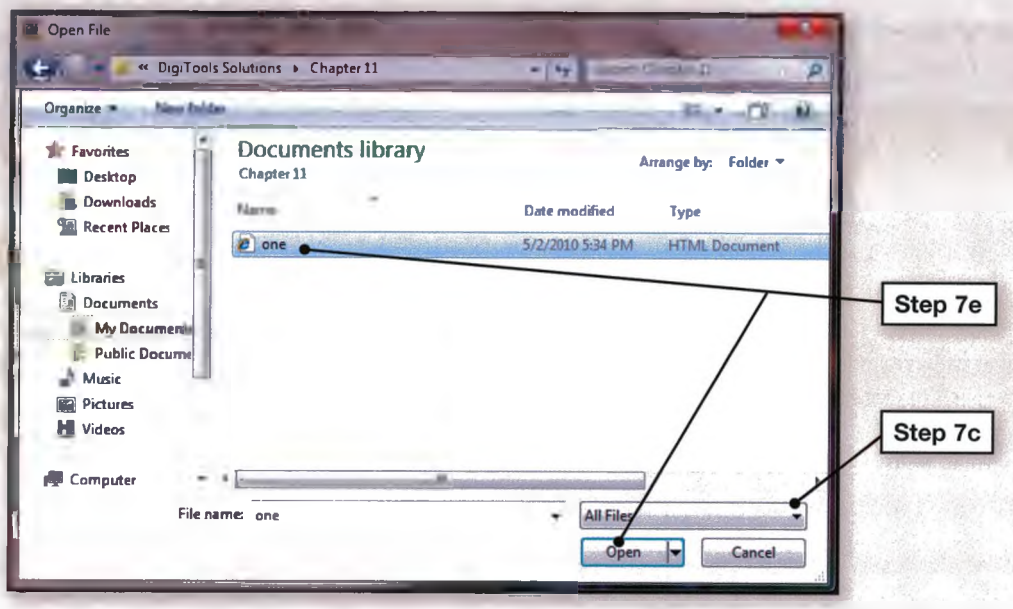


FIGURE 11-7
Opening Files in Firefox

8. View your file. It should look like Figure 11-8. Look for the following:
   - Text between <title> </title> tags
   - Text between   tags
   - Text between   tags

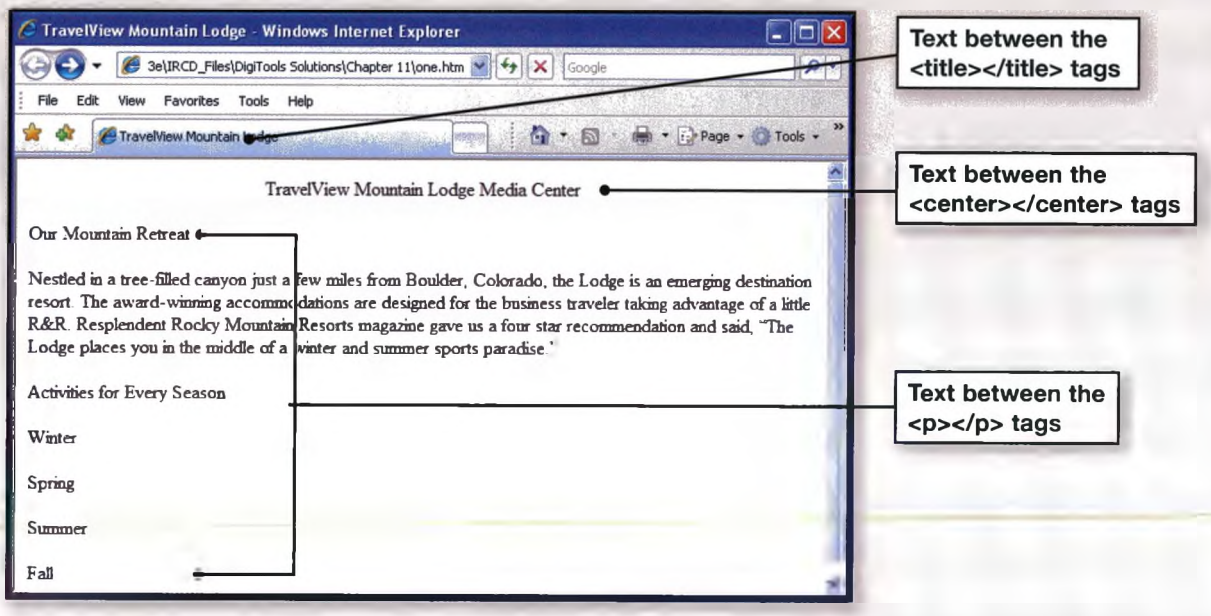


FIGURE 11-8
Example Web Page

9. How does your Web page look? Make any corrections necessary, save again, and return to your browser. Then click the **Reload** or **Refresh** button on the browser toolbar to see the changes you made.

DIGITAL SNAPSHOT

Perfect Proofreading Tips

Proofreading HTML tags can be difficult. Even the slightest error can drastically change the look of a Web page. Keep the following points in mind when checking HTML tags:

- Make sure all your angle brackets face the proper direction.
- Web page writers often misuse the Shift key when making angle brackets or creating a slash. This results in a comma, a period, or a question mark where the slash or angle brackets should appear.
- Check all of your tags to make sure they are closed properly, like <hr />. (See Activity 11-6.)
- If bullets appear long after a list, perhaps you forgot the close unordered list tag . (See Activity 11-4.)
- If all the defined text does not change, make sure your CSS definitions appear between the <head></head> tags. (See Activity 11-9.)
- If you want a double space instead of a single space, use a tag instead of a <br /> tag. (See Activity 11-6.)

USING HEADINGS

HTML gives you six standard headings, or title sizes, from which to choose. In later activities, you will learn more sophisticated ways to manipulate the size and appearance of text. Nevertheless, the heading tags provide an easy way to control the size of your text, making it stand out so your reader can view the headings clearly.

The heading tags are easy to remember. They use the letter *h* with a number from *1* to *6* to indicate the level of the heading. Heading numbers indicate the level of importance for marked headings, with 1 being most prominent and 6 being least prominent.

```
<h1></h1>
<h2></h2>
<h3></h3>
<h4></h4>
<h5></h5>
<h6></h6>
```

Anything inside the heading tags will be made larger or smaller depending on the number. For example:

```
<h1>VERY BIG</h1>
<h3>In the Middle</h3>
<h6>Very Small</h6>
```

Activity 11-3 ADD HEADINGS

1. If necessary, open your text editor and the ***one.htm*** file.



To open an HTML document in Notepad, click **File** on the menu bar, click **Open**, click the **Files of type** arrow, and then click **All Files**, as shown in Figure 11-9.

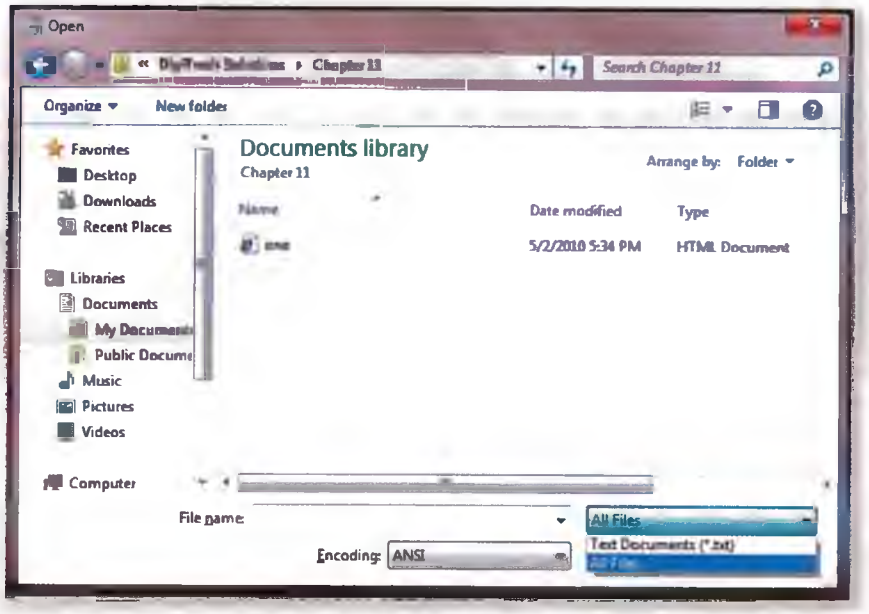


FIGURE 11-9
Opening a File in Notepad

INSTANT MESSAGE

Tags should be nested. With the tags <h2></h2> , notice that the tags are on the outside and the <h> tags are on the inside. This is proper nesting.
Think of the tags as the bird's nest and the birds are the <h> tags inside. You do not want a bird to be outside the nest, or they may fall out like this: <h2> </h2>.

2. Key the heading tags shown in bold below.

```
<html>
<head>
<title>TravelView Mountain Lodge</title>
</head>
<body>
<center><h1>TravelView Mountain Lodge Media Center</h1></center>
<p><h2>Our Mountain Retreat</h2> </p>
<p>Nestled in a tree-filled canyon just a few miles from Boulder, Colorado, the Lodge
    is an emerging destination resort. The award-winning accommodations are designed
    for the business traveler taking advantage of a little R&R. Resplendent Rocky
    Mountain Resorts magazine gave us a four-star recommendation and said, "The
    Lodge places you in the middle of a winter and summer sports paradise."</p>
<p><h2>Activities for Every Season</h2> </p>
<p><h3>Winter</h3> </p>
<p><h3>Spring</h3> </p>
<p><h3>Summer</h3> </p>
<p><h3>Fall</h3> </p>
</body>
</html>
```

3. Save your new HTML file as ***two.htm*** in your ***Chapter 11*** solutions folder.

4. Start your Web browser, and then open your ***two.htm*** file to view it in the browser window. It should look like Figure 11-10.

DigiTip

Heading tags really change the look of a page. In Figure 11-10, there are three levels of headings:

<h1></h1> The title "TravelView Mountain Lodge Media Center" seen at the top
<h2></h2> The "Our Mountain Retreat" and "Activities for Every Season" side headings
<h3></h3> The list of seasons

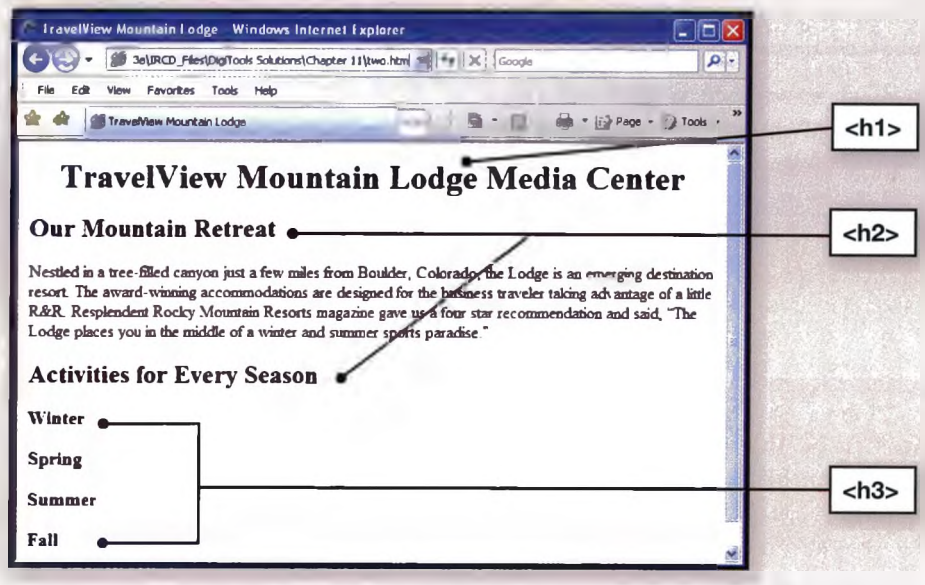


FIGURE 11-10
Headings in a Web Page

NUMBERED AND BULLETED LISTS

INSTANT MESSAGE

Note that an ordered list is created with the letters *ol*; the tag is not a zero and a 1 or a zero and an *l*.

Lists are one of the most powerful ways to organize information. In HTML, there are two kinds of lists:

- Unordered (or Bulleted) lists
- Ordered (or Numbered) lists

The items in the list (either bullets or numbers) are created with .

In Activity 11-4, start your first and third lists with the opening <ul> unordered lists tag. Mark the items to be listed with the list tags. Place an tag at the end of your list. Start your second and fourth lists with the <ol>, or ordered list, tag. Mark the items with the list tags again. Then place an tag at the end of each ordered list.

Activity 11-4 ADD NUMBERED AND BULLETED LISTS

1. If necessary, open your ***two.htm*** file for text editing.
2. Key:
   a. **
** tags at the beginning and end of the Winter and Summer lists.
   b. **
** tags at the beginning and end of the Spring and Fall lists as seen below.
   c. **
** and **
** tags for each item in the list as shown in the following:

```
<html>
<head>
<title>TravelView Mountain Lodge</title>
</head>
<body>
<center><h1>TravelView Mountain Lodge Media Center</h1></center>
<p><h2>Our Mountain Retreat</h2></p>
```

```
<p>Nestled in a tree-filled canyon just a few miles from Boulder, Colorado, the Lodge
    is an emerging destination resort. The award-winning accommodations are designed
    for the business traveler taking advantage of a little R&R. Resplendent Rocky
    Mountain Resorts magazine gave us a four-star recommendation and said, "The
    Lodge places you in the middle of a winter and summer sports paradise."</p>
<p><h2>Activities for Every Season</h2></p>
<p><h3>Winter</h3></p>
<ul>
<li>Skiing</li>
<li>Snowboarding</li>
<li>Snowshoeing</li>
<li>Cross-country skiing</li>
</ul>
<p><h3>Spring</h3></p>
<ol>
<li>Hiking</li>
<li>Fishing</li>
<li>Golf</li>
<li>Horseback riding</li>
</ol>
<p><h3>Summer</h3></p>
<ul>
<li>Camping</li>
<li>Golf</li>
<li>Mountain bike riding</li>
<li>Swimming</li>
</ul>
<p><h3>Fall</h3></p>
<ol>
<li>Kayaking</li>
<li>Barbequing</li>
<li>Horseback riding</li>
<li>Canoeing</li>
</ol>
</body>
</html>
```

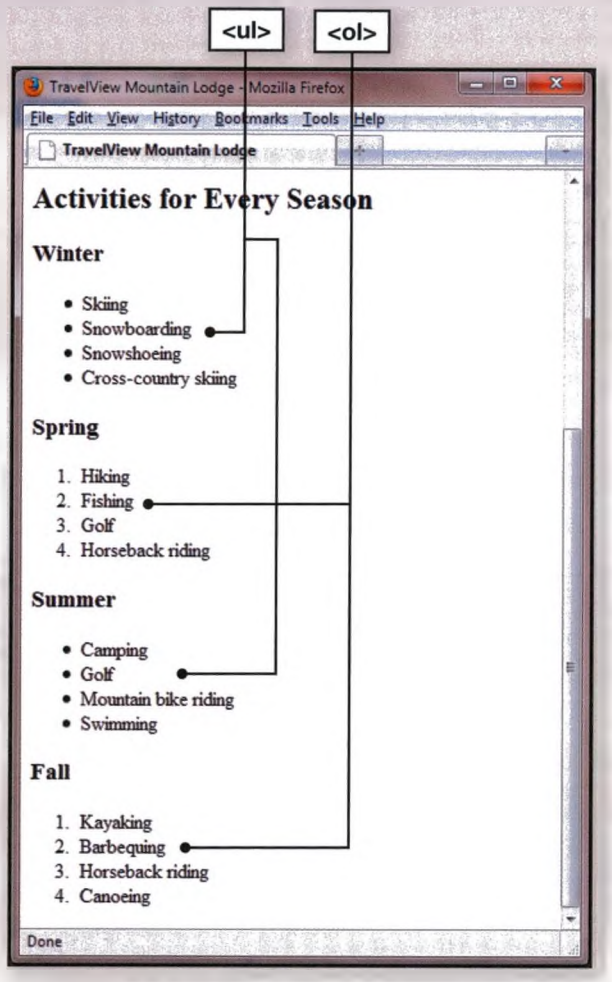


FIGURE 11-11
Ordered and Unordered Lists

3. Save your file as ***three.htm*** to your ***Chapter 11*** solutions folder.
4. View your ***three.htm*** Web page in a browser to see how it looks. It should be similar to Figure 11-11.
5. If necessary, open your ***three.htm*** file in a text editor.
6. Change the tags to **
** tags around the Spring and Fall lists to change all the lists to bulleted lists.
7. Save your file as ***four.htm*** in your ***Chapter 11*** solutions folder, and if possible, leave it open for the next activity.
8. View your ***four.htm*** page in a browser to see how it looks. If possible, leave your browser open for the next activity.

LESSON 11-2 Apply XHTML and CSS Attributes and Values

IN THIS LESSON YOU WILL:

Objectives

1. Format a Web page with XHTML and CSS tags.
2. Organize a page with horizontal lines.
3. Implement attributes and values.
4. Change Web page color defaults.

Key Terms

attribute
deprecated
hexadecimal
value
XHTML (Extensible HyperText Markup Language)
XML (Extensible Markup Language)

XHTML AND DEPRECATION

New upgrades to HTML are being added every year. Some of these upgrades have names like **XML (Extensible Markup Language)** and **XHTML (Extensible HyperText Markup Language)**. These tools are improving the Web page creation process by creating a stricter development environment—which means people will make fewer mistakes that distort the way their Web pages look.

With XHTML/XML, many older HTML tags are being **deprecated**. This means they are being downgraded and devalued, or even becoming obsolete! Sad as it may seem, simple tags like are scheduled for the scrap heap sometime in the near future.

Why the changes? XHTML/XML allows you to get more done with a single tag through the use of **attributes** (or special qualities) and **values** (or definitions of attributes). In the examples that follow, *style* is the attribute and all the information between the straight quotes is the value. In these examples, you are able to:

- Move text to the right, left, or center of the page from inside a heading 1 tag.

  <h1 style="text-align:right"> Sample Text </h1>
  <h1 style="text-align:left"> Sample Text </h1>
  <h1 style="text-align:center"> Sample Text </h1>
- Change the size of a font from within the paragraph tag.

  ** Sample Text **
- Change the look of a font from within the paragraph tag.

  ** Sample Text **
- Separate multiple values with a ; as seen in this example:

  ** Sample Text **

INSTANT MESSAGE

In word processing applications, you can use curly quotes "". They look great on a printed page. However, in HTML and XHTML code, you must use straight quotes "". Fortunately, text editors like Notepad automatically use straight quotes.

Activity 11-5 ADDING XHTML TAGS

1. If necessary, open your text editor and your ***four.htm*** file for text editing.

2. Delete the old, deprecated   tags.

3. Add the following style information to the first <h1> tag. (The text in bold is what is being added.)

   <h1 **style="text-align:right"**>TravelView Mountain Lodge Media Center </h1>

4. Save your new file as ***five.htm*** in your ***Chapter 11*** solutions folder, switch to your Web browser, open the ***five.htm*** file, and view the changes. Your title should be on the right side of the page.

5. Switch back to your text editor, and change the value *right* to **left** as seen in the example below. Resave the file in your text editor, switch to your browser, and refresh your browser to view the change. Your title should be on the left side of the page.

   <h1 style="text-align:**left**">TravelView Mountain Lodge Media Center </h1>

6. Change the value *left* to **center** as seen in the example below. Resave the file in your text editor, switch to your browser, and refresh your browser to view the change. Your title should be in the center of the page.

   <h1 style="text-align:**center**">TravelView Mountain Lodge Media Center </h1>

7. Switch back to your text editor, and add the following style information to the tag in front of the large paragraph as seen here.

   <p **style="font-family:verdana;font-size:150%"**>Nestled in a tree-filled canyon just a few miles from Boulder, Colorado, the Lodge is an emerging destination resort. The award-winning accommodations are designed for the business traveler taking advantage of a little R&R. Resplendent Rocky Mountain Resorts magazine gave us a four-star recommendation and said, "The Lodge places you in the middle of a winter and summer sports paradise."

8. Resave your ***five.htm*** file, switch to your Web browser, and refresh to view the changes.

9. Switch back to your text editor, and replace the values for the font-family and font-size attributes for the tag as listed below. Save each sample to your ***five.htm*** file, and view each change in your browser before you go on to the next set of values:

   a.
   b.
   c.

   After you change your paragraph tag values to *times* and *125%*, your page should look like Figure 11-12.

INSTANT MESSAGE

Your browser will not look for your newly corrected Web page unless you tell it to. You can save and reopen the page again or simply save and then click the Reload or Refresh button to load the updated copy of your Web page into your browser.

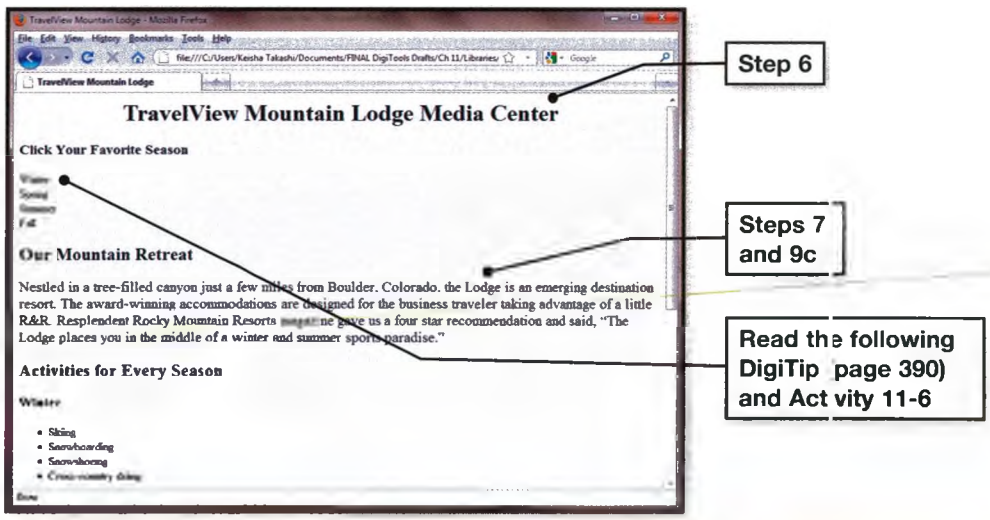


FIGURE 11-12
XHTML Tags Controlling the Look of the Text



Even though the *Click Your Favorite Season* list marked in Figure 11-12 will not be added until Activity 11-6, it will still be changed to match the XHTML tag definitions after the fact as seen here. That's one of the best features of XHTML; after the definitions are set, all text will react according to the XHTML definitions.

HORIZONTAL RULES AND BREAKS WITH SINGLE TAGS

The paragraph tag you modified in Activity 11-5 is a paired tag. To be paired, the tag must have both an opening and closing tag. To save you time and energy, XHTML allows you to use single, or unpaired, tags. For example, the unpaired <br />, or break, tag will create a single-space break. Notice the space after the *br* and before the /. The space and the / symbol closes the tag inside a single tag.

Another example of an unpaired tag is the widely used horizontal rule, or <hr /> tag. This tag creates a horizontal line across the page and needs only a single tag. Like the <br /> tag, it is closed with a space and a slash at the end of the tag.

You can add attributes and values to unpaired tags. Attributes to the <hr /> tag can change the size and shape of the horizontal rule. Try using unpaired XHTML single tags in the next activity.

Activity 11-6 ADDING HORIZONTAL LINES

1. If necessary, open Notepad or your text editor and open your ***five.htm*** file.



Add the horizontal rule and break tags as explained here. The changes are marked in bold in the code sample that follows the explanation in step 3.

2. Add horizontal rule **<hr />** tag between each major section of the Web page and at the end of the Web page as shown in bold in the code sample following step 3.

3. Add the five lines of text below the <h1> title. Follow each line with the **
** tag. Do not forget to add a space after the letters *br* as seen in the sample code below.

```
<html>
<head>
<title>TravelView Mountain Lodge</title>
</head>
<body>
<h1 style="text-align:center">TravelView Mountain Lodge Media Center</h1>
<hr />
<h3>Click Your Favorite Season</h3>
Winter <br />
Spring <br />
Summer <br />
Fall <br />
<hr />
```

```
<p><h2>Our Mountain Retreat</h2></p>
<p style="font-family:times;font-size:125%"> Nestled in a tree-filled canyon just a
    few miles from Boulder, Colorado, the Lodge is an emerging destination resort.
    The award-winning accommodations are designed for the business traveler taking
    advantage of a little R&R. Resplendent Rocky Mountain Resorts magazine gave
    us a four-star recommendation and said, "The Lodge places you in the middle of a
    winter and summer sports paradise."</p>
<hr />
<p><h2>Activities for Every Season</h2></p>
<p><h3>Winter</h3></p>
<ul>
<li>Skiing</li>
<li>Snowboarding</li>
<li>Snowshoeing</li>
<li>Cross-country skiing</li>
</ul>
<hr />
<p><h3>Spring</h3></p>
<ul>
<li>Hiking</li>
<li>Fishing</li>
<li>Golf</li>
<li>Horseback riding</li>
</ul>
<hr />
<p><h3>Summer</h3></p>
<ul>
<li>Camping</li>
<li>Golf</li>
<li>Mountain bike riding</li>
<li>Swimming</li>
</ul>
<hr />
<p><h3>Fall</h3></p>
<ul>
<li>Kayaking</li>
<li>Barbequing</li>
<li>Horseback riding</li>
<li>Canoeing</li>
</ul>
<hr />
</body>
</html>
```

4. This is a good chance to compare your code with the code shown above. Compare your code, and correct any mistakes before saving.

5. Save your new file as ***six.htm*** in your ***Chapter 11*** solutions folder.

6. If necessary, start your Web browser and open your ***six.htm*** file to view it. It should look like Figure 11-13.

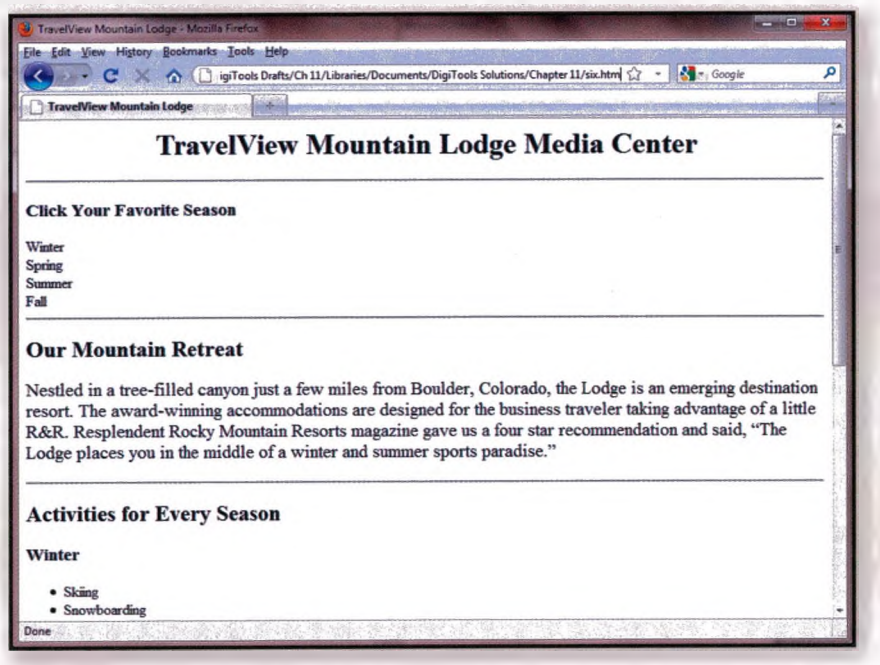


FIGURE 11-13 Horizontal Lines Added

APPLY MORE ATTRIBUTES AND VALUES

Experiment with the width and height of lines using styles with the *style*= attribute. Style changes will make lines wider and shorter as measured in pixels. A pixel (or px) is short for picture element, which is the smallest single dot of color your monitor is capable of displaying. You need a magnifying glass to see one pixel; so to see the changes, you need to use 5, 10, 25, or even 50 pixels to see the impact.

Activity 11-7 CHANGING LINE HEIGHT AND WIDTH

1. If necessary, open your ***six.htm*** file in your text editor.
2. Replace each <hr /> tag with one of the following:
   a. For a horizontal rule that is 10 pixels high, change one of the <hr/> tags as follows:
      <hr style="height:10px" />
   b. For a horizontal rule that is 25 pixels high, change one of the <hr /> tags as follows:
      <hr style="height:25px" />
   c. For a horizontal rule with the width set at 50% of a full line, change one of the <hr/> tags as follows:
      <hr style="width:50%" />
   d. For a horizontal rule that is 20 pixels high with the width set at 25% of a full line, change one of the <hr /> tags as follows:
      <hr style="width:25%;height:20px" />
3. View how these horizontal rule options look by resaving your file and viewing it in your browser.

4. Switch back to the text editor, and change all of the <hr /> tags to the following settings:
<hr style="width:80%;height:10px" />

5. Save your new file as ***seven.htm*** in your ***Chapter 11*** solutions folder.

6. Open and view your new ***seven.htm*** file in your browser. It should look like Figure 11-14.

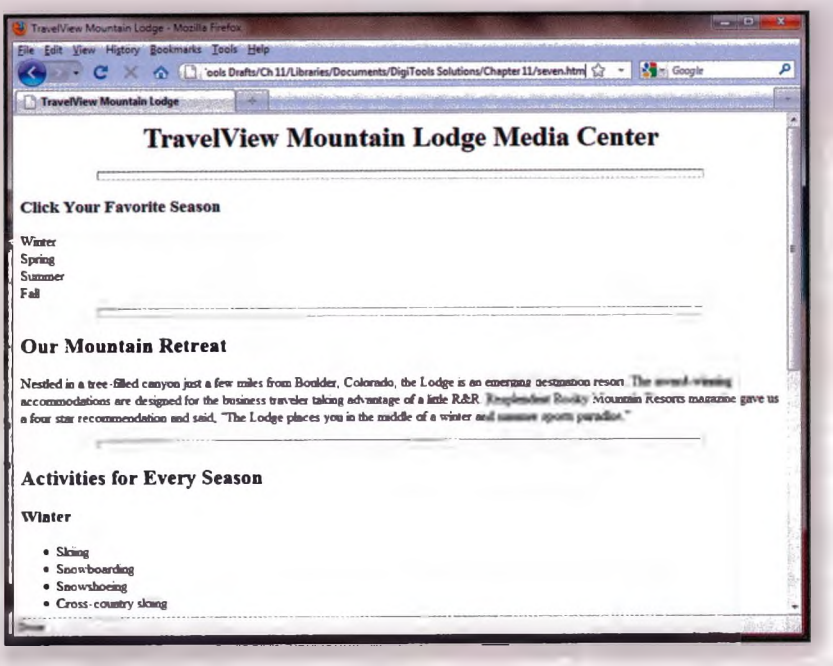


FIGURE 11-14
80%, 10px Horizontal Lines

ADDING COLOR ATTRIBUTES AND VALUES

The key to understanding XHTML is to become an expert at manipulating attributes and values. Take the <body> tag, for instance. In XHTML, you can add attributes and values to the body tag that will dramatically change the look of a Web page. To change the background color of your page, you can give the tag a color value. Remember, values are always placed between two straight quotation marks.



You can key color names as text values. Red, blue, green, black, white, and yellow are obvious. But there are many more variations. For example, here are just a few examples of named shades of blue:

- aliceblue
- cornflowerblue
- darkblue
- deepskyblue
- dodgerblue
- lightblue
- lightskyblue

DIGITAL SNAPSHOT

Color by Number in Hexadecimal

While you can key color names as values, computers speak in numbers! Therefore, values must be converted into numbers that the computer understands; so the word *yellow* will be converted by the browser into the appropriate color value in numerical terms.

Using the common names of colors is somewhat limiting. Color values can be carefully controlled and changed to match virtually every color in the rainbow by using special numerical, or **hexadecimal**, values. The invention of hexadecimal is one of the greatest advances in computing. Hexadecimal digits operate on a base-16 number system rather than the base-10 number system you normally use.

Hexadecimal numbers use the letters *A*, *B*, *C*, *D*, *E*, and *F* along with the numbers 0 to 9 to create 16 different digits. For example, look at the following color values expressed as hexadecimal values:

White	#FFFFFF
Green	#00FF00
Black	#000000
Blue	#0000FF
Red	#FF0000
Yellow	#FFFF00

Shades of these colors are created by changing the numbers. For example, a really great sky blue can be created on your HTML page with the hexadecimal number 00CCFF. Do you want a nice light purple? Try FF95FF. An ugly green can be created with AAFF00. Substitute text color values with numbers in your Web page to see what happens. For example, try this in the <body> tag:

<body style="background-color:#AAFF00">

To learn more about hexadecimal colors, visit: http://www.w3schools.com/Html/html_colors.asp.

Activity 11-8 ADDING BACKGROUND COLORS

1. If necessary, open your ***seven.htm*** file for text editing.
2. Key **style="background-color:yellow"** inside the <body> tag near the top of your Web page. Your full tag set will look like this:
   <body style="background-color:yellow">
3. Resave the file, and then view the page in your Web browser. Your page should be yellow as seen in Figure 11-15.

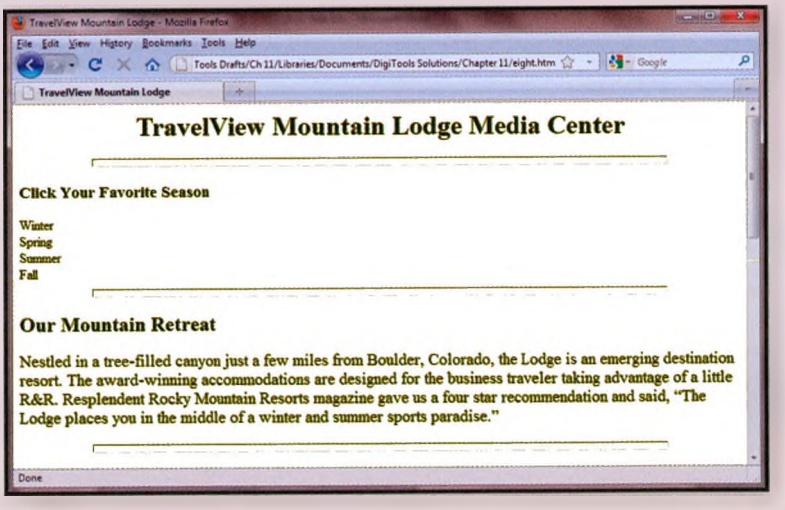


FIGURE 11-15
Hexadecimal Color Choice

INSTANT MESSAGE

Keep in mind that mixing red and green color shades can cause colorblind people to struggle with the text. Making your font sizes too small can cause trouble for those with poor vision. And using a dark background with dark letters can make a page difficult for anyone to read.

4. Experiment. In your text editor, change the background color value to **blue**, **green**, **red**, **white**, or another color of your choice. (For example, Figure 11-16 displays a light blue with the style value seen in this body tag: <body style="background-color:lightblue">.)

5. Resave the file, and refresh your browser to view the changes you have made.

DIGITAL TIP

In this activity, you have changed color values using words. You can also change colors by number. To learn more, read *Digital Snapshot: Color by Number in Hexadecimal* (page 394) and experiment with hexadecimal numerical values in this next step.

6. Return to your text editor, and change the color value from a word (like *yellow*) to a numerical value preceded by the pound sign (#), such as <body style="background-color:**#E6E6FA**">.

7. Save your file as ***eight.htm***. Open this file in your browser, and view the final color change.

COLORING TEXT WITH CSS

You are about to take your first step into CSS, or Cascading Style Sheets. With CSS, you can define colors for the entire page without having to change specific lines of code one at a time. You must define CSS styles with the following attribute and value set:

<style type="text/css">

This style definition must appear between the <head></head> tags. (Now you know why the <head></head> tag is necessary!) The values for each style will appear between curly brackets { }, which are keyed by holding the Shift key and tapping the bracket keys [ ].

Table 11-1 provides an example of the color changes you can make with a CSS. The table also outlines the changes you will make in the next activity. Once these values are placed inside the head tags, all subsequent uses of those styles will automatically be in the color defined. So, for example, anytime the h1 heading is used anywhere on the page, it will be red. In the next activity, you will learn how to change color attributes and values with a few simple CSS commands.

TABLE 11-1
Text Color Changes Using CSS

Goal	Values
Change the color of the h1 text	**h1 {color:red}**
Change the color of the h2 text	**h2 {color:blue}**
Change the color of the h3 text	**h3 {color:yellow}**
Change the color of the list items between the tags	**li {color:purple}**
Change the color of text between the	**p {color:green}**

1. If necessary, open your ***eight.htm*** file for text editing.
2. Between the <head></head> tags at the beginning of the Web page, key the style definitions using the <style type="text/css"> definition. Then add the color definitions for the segments of text marked by the <h1>, <h2>, <h3>, <li>, and <p> tags; for example:

```
<html>
<head>
<title>TravelView Mountain Lodge</title>
<style type="text/css">
h1 {color:red}
h2 {color:blue}
h3 {color:yellow}
li {color:purple}
p {color:green}
</style>
</head>
```

3. Save your work as ***nine.htm*** in your ***Chapter 11*** folder. View your work in your Web browser. Your page should appear similar to Figure 11-16, although your background color may be different.

INSTANT MESSAGE

If you do not define a style color, the browser knows to apply a default color, usually black, as marked in Figure 11-16 by the word *default*. The default is the automatic choice of a browser when no color is defined.

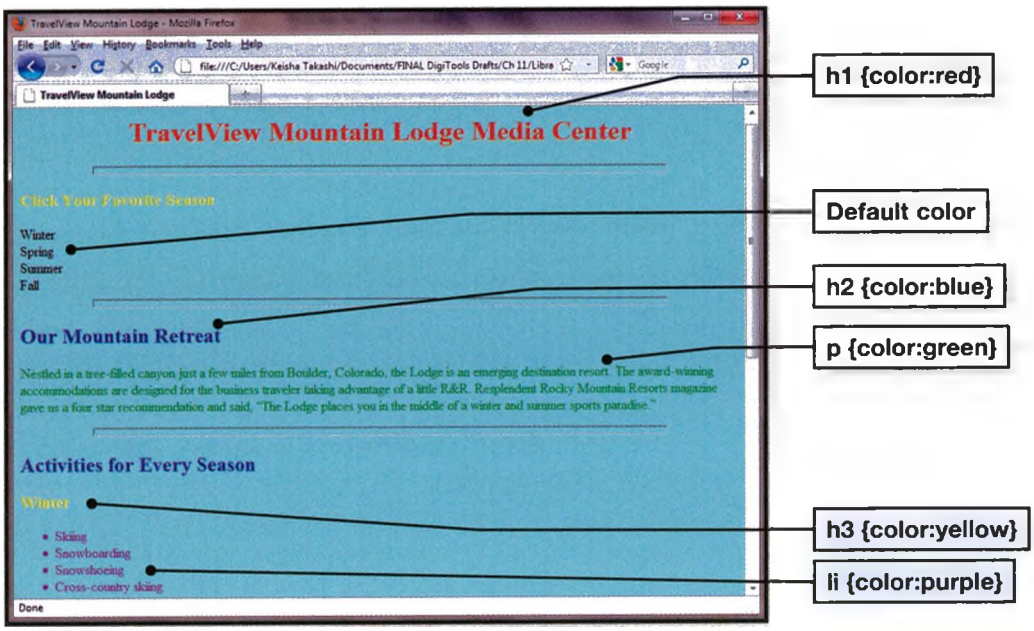


FIGURE 11-16
Text Colors Using CSS Definitions

4. You pick this time! Switch back to your text editor, and change the colors using commonly named colors for your h1, h2, h3, li, and p tag color values. Resave your page, and see whether you like your new color choices. Here are the final choices we made:

```
h1 {color:red}
h2 {color:blue}
h3 {color:green}
li {color:purple}
p {color:purple}
```

5. Resave your file with your final color choices.

LESSON 11-3 Create Hyperlinks

IN THIS LESSON YOU WILL:

Objectives

1. Create hypertext link using the anchor tag.
2. Make and test multiple hyperlinks to locations within a page.
3. Create hyperlinks to other Web pages.

Key Term

HyperText REFerence (HREF)

HYPERLINKS INSIDE YOUR DOCUMENT

Web pages became popular because they could link easily to other pages. They can also link to places within a page. Both text and images can be turned into links with a few simple tags. Hyperlinks are created with special tags called anchor tags. The tag has several parts and looks like this:

Links and anchor tags are fairly useless unless you define the place to which you are linking. There are several ways to use anchor tags. You can:

- Link to another spot within your own document.
- Link to a Web page anywhere on the World Wide Web (www).

In Activity 11-10, you will link to places on your current Web page so users can find the section they are looking for in a hurry. In Activity 11-11, you will link to sites on the Web.

All hyperlinks are created starting with the anchor, or <a>, tag. You will also need the attribute *href*=. **HREF** is short for **HyperText REFerence**. The value for HREF is the location to which you want the link to take you. If you are linking within a page, your value will look something like *"#winter"*. The quotation marks are necessary, as is the # (pound) sign. Links online require a Web page like www.skisolitude.com.

When creating a link within a page, a second anchor tag, *<a name>*, will identify the exact location in your Web page to which you want to link.

Activity 11-10 CREATE A LINK WITHIN A PAGE

1. If necessary, open your ***nine.htm*** file in your text editor.
2. Add the following anchor <a> tags before and after the first season (Winter) at the top of the page, as seen here.
   ****Winter****
3. Insert the following anchor naming tags around the *Winter* heading above the list of winter sports later in the document. Notice that the anchor tag is nested between the <h3></h3> tags.
   <h3>****Winter****</h3>
4. Locate and compare your code to the segment seen here. The hyperlink tags are marked in bold. Make sure everything is the same!
   <h3>Click Your Favorite Season</h3>
   **Winter
**

```
Spring <br />
Summer <br />
Fall <br />
<hr style="width:80%;height:10px" />
<p><h2>Our Mountain Retreat</h2></p>
    <p style="font-family:times;font-size:125%"> Nestled in a tree-filled canyon just
    a few miles from Boulder, Colorado, the Lodge is an emerging destination resort.
    The award-winning accommodations are designed for the business traveler taking
    advantage of a little R&R. Resplendent Rocky Mountain Resorts magazine gave
    us a four-star recommendation and said, "The Lodge places you in the middle of a
    winter and summer sports paradise."</p>
<hr style="width:80%;height:10px" />
<p><h2>Activities for Every Season</h2></p>
<p><h3><a name="winter">Winter</a></h3></p>
<ul>
<li>Skiing</li>
<li>Snowboarding</li>
<li>Snowshoeing</li>
<li>Cross-country skiing</li>
</ul>
```

5. Save your new file as ***ten.htm*** in the ***Chapter 11*** folder.

6. Switch to your Web browser, view your page, and try the link. Notice that the word *Winter,* which is now a hyperlink, appears blue and underlined.

7. Click the link. You should jump to the Winter section of the document as seen in Figure 11-17.

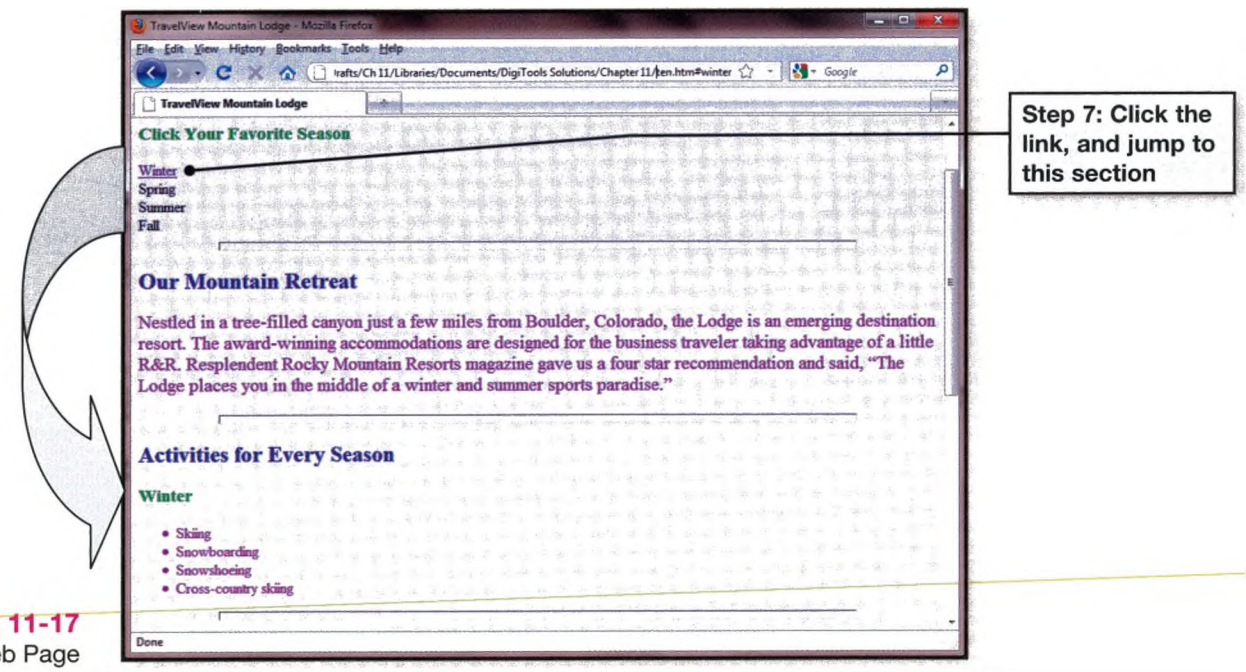


FIGURE 11-17
Links on a Web Page

8. If the link did not work, compare the text in your text editor to that shown above and make any corrections that may be necessary so that your link works. Save any changes, and keep your file open for the next activity.

Activity 11-11 CREATE MULTIPLE LINKS WITHIN A PAGE

DigiTip

As you learned in Activity 11-10, you will need to define two sets of tags. The first (step 2) creates the link, and the second (step 3) defines the spot you wish to jump to, or land.

INSTANT MESSAGE

To see the links working, you may need to shrink the size of your browser window. After you click a link, notice that it changes color to let you know that you have already used the hyperlink.

1. If necessary, open your ***ten.htm*** file in your text editor.
2. Add the following anchor **<a>** tags before and after the remaining seasons (Spring, Summer, and Fall) as shown here.
   ****Spring****
   ****Summer****
   ****Fall****
3. Insert the following anchor name **<a>** tags around the words *Spring, Summer,* and *Fall* at the beginning of each of these sections.
   <h3>****Spring****</h3>
   <h3>****Summer****</h3>
   <h3>****Fall****</h3>

Click Your Favorite Season

Winter
Spring
Summer
Fall

FIGURE 11-18 Links to Test

4. Save your new file as ***eleven.htm*** in your ***Chapter 11*** solution folder.
5. Open your page in your Web browser, and try all four links (see Figure 11-18). When you click the links, you should jump to the various sections of the document.
6. If the links do not work, switch back to your text editor and make any corrections that may be necessary so that all of your links work. Be sure to resave all changes.

CREATING HYPERTEXT LINKS TO THE WEB

The ability to jump from one page to another anywhere in the world is what first made the World Wide Web popular. Before you can create these links, however, you must understand **URLs**, or Uniform Resource Locators. You should already know a bit about URLs from our discussion in Chapter 2. Following is more detail on these impressive Web addresses.

When you key an URL into your HTML Web page, you're identifying a path to a specific HTML file located somewhere online. URLs typically look like this:

http://www.cengage.com/webpagefolder/anotherfolder/afile.htm

When keying URLs into a hypertext link, you use the letters *http* followed by a colon and two slashes. The *http://* tells your network how to transfer, or move, the files you are requesting. HTTP stands for HyperText Transfer Protocol. A protocol is a communication system used to transfer data over networks. It is like a secret digital language that Web servers use to communicate with Web browsers.

You often can see the name of the file at the end of an URL. Look at the end of the sample URL above. The filename *afile.htm* is the name of an HTML file (*afile*). As you

already know, the .htm or .html extension identifies files as an HTML document that your Web browser can display.

However, before you can get to *afile*, you need to know the path, or the way, to this filename. The first part of the path, such as www.cengage.com, is the name of the server (or Web computer) and company that hosts the Web page.

The *www* stands for World Wide Web and directs the search to a specific Web server. This www prefix can be dropped altogether if so designed by the site owner. For example, google.com and www.google.com directs you to the same location. However, changing the prefix can take the user to different services, such as:

sites.google.com
gmail.google.com
docs.google.com

The slashes and names in the rest of the URL (*/webpagefolder/anotherfolder/*) represent folders on the Web server. These are also called subdirectories. Subdirectories are file folders like those you have created dozens of times on your PC.

Activity 11-12 CREATE LINKS TO THE CLOUD

1. If necessary, open your ***eleven.htm*** file in your text editor.
2. Move to the end of your page just before the close </body> tag and after the <hr style="width:80%;height:10px" />.
3. Enter a new level-three heading title as shown here:
   <**h3>Valuable Links</h3**> =
4. Below your new heading and before the </body> tag, create the following hypertext links as shown.

```
<a href="http://www.microsoft.com">Microsoft</a><br />
<a href="http://www.mozilla.org">Mozilla</a><br />
<a href="http://www.facebook.com">Facebook</a><br />
<a href="http://www.w3.org">W3</a><br />
<a href="http://www.apple.com">Apple</a><br />
<a href="http://sites.google.com">Google Sites</a><br />
<a href="http://docs.google.com">Google Docs</a><br />
<a href="http://mail.google.com">Google Gmail</a><br />
<hr style="width:80%;height:10px" />
```

5. Save your work as ***twelve.htm*** in your ***Chapter 11*** solutions folder.
6. Open the file in your Web browser. Your new links should look like Figure 11-19.
7. Try your links to see if they work! If they do not work properly, carefully review the tags in your text editor and make any necessary corrections. Save your work again. Then reload or refresh the page in your Web browser and try again.



FIGURE 11-19 Hyperlinks in the Web Browser

LESSON 11-4 Add Images to Web Pages

IN THIS LESSON YOU WILL:

Objectives

1. Download images from online sources.
2. Insert an image into a document.
3. Change the size and location of an image.

DOWNLOADING AND INSERTING GRAPHICS

The Web is full of multimedia: pictures, sounds, and movies that add interest to Web pages. As you learned in Chapter 8, several compressed image formats are commonly used on the Web. They include the following:

- The *Graphics Interchange Format (GIF)*: The first Web image format, .gif, was created to provide compressed graphics that can transfer easily over low-speed connections. GIF files have some unique characteristics: they can be used as regular images, they can be animated (like cartoons), and they can allow transparency in portions of the image so the background bleeds through. (The image ***TravelView_Logo.gif*** used in this lesson is a transparent gif, so you can see how the background color of a Web page appears through the image.)
- *Joint Photographic Experts Group (JPEG)*: A second commonly used format is .jpg or .jpeg. This format adheres to an international set of graphics standards and is the format used by most cameras and cell phones. JPEG graphics can be compressed for Internet use.
- *Portable Graphics Format (PNG)*: Pronounced PING (as in ping pong). PNG was designed to replace GIF files. These files are often more robust than GIF files, which are meant to be very small and compact.

The extensions .gif, .png, and .jpg help tell your browser that these files are pictures and require special handling. Fortunately, the HTML rules handle each of these formats the same way: using an image source tag.

Activity 11-13 DOWNLOADING IMAGES

1. If necessary, start your Web browser.
2. Enter the Web address **www.cengage.com/school/keyboarding/digitools** in the address bar. Tap the **Enter** key.
3. Choose the **Corporate View Intranet** link. (If you do not have access to the Web, you may be able to use a local copy of the Corporate View intranet instead. Ask your instructor or network administrator for the location of the local copy of the Corporate View intranet.)
4. After the Corporate View intranet home page appears, select CorpView Divisions from the navigation bar on the left, and then click the **TravelView** link on the page as marked in Figure 11-20.

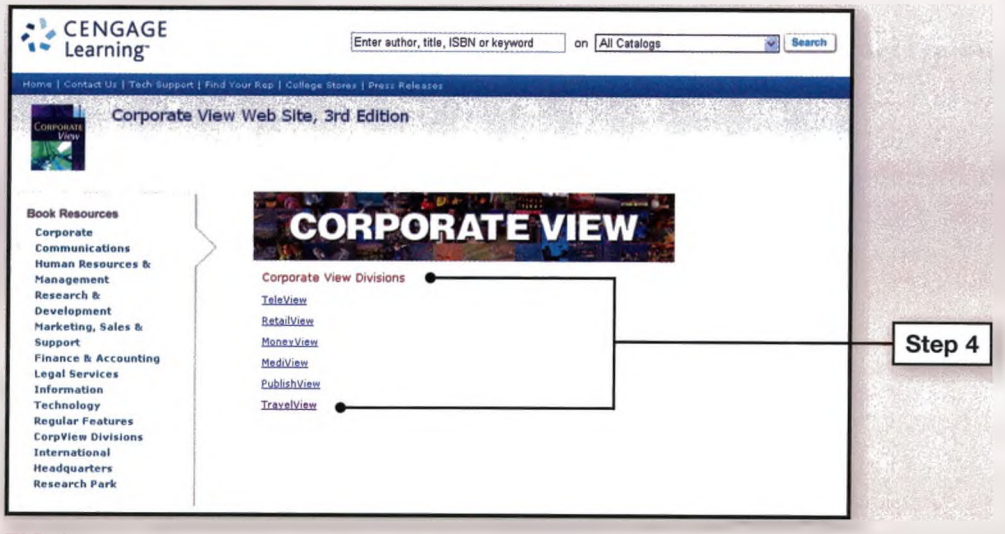


FIGURE 11-20 Corporate View Intranet Website

5. Scroll down until you see the TravelView organization chart. Right-click on the image. (*Note:* If you are using a Macintosh, click and hold your mouse button on the image.)

6. Choose the **Save Image As** or **Save Picture As** command from the list that appears, as shown in Figure 11-21. (*Note:* The command on your browser may be worded differently. In IE, the command is **Save Picture As**. In Firefox and Google Chrome, the command is **Save Image As**.)

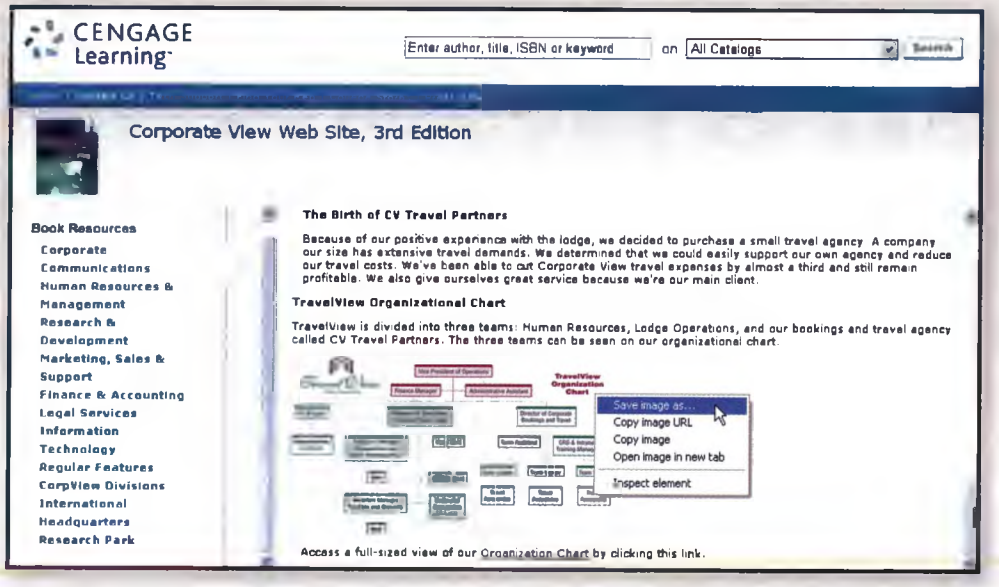


FIGURE 11-21 Pop-up Menu for TravelView Organization Chart

INSTANT MESSAGE

If you cannot find the specific file used in this example, don't despair. Any GIF, JPEG, or PNG file will do.

7. Browse to your ***Chapter 11*** solutions folder, and save your captured. Save your file as ***TravelView_Org_Chart.gif***.

8. Close the Corporate View website.

Activity 11-14 INSERT A GRAPHIC

1. Using Windows Explorer, copy the file ***TravelView_Logo.gif*** from the data files for this chapter to your solution files folder. (Be sure to place this graphic file in the same folder as your HTML files.)
2. If necessary, open your ***twelve.htm*** file in your text editor.
3. Move to the end of your page just before the close </body> tag and after the <hr style="width:80%;height:10px" />.
4. Enter a new level-three heading title as shown here:
   ** <h3>Image Experiments</h3> **
5. Below your new heading and before the </body> tag, insert your image using the tags, attributes, and values shown on page below. Notice that the name of the file you just downloaded appears between quotation marks.
   ****
   <hr style="width:80%;height:10px" />
   </body>
   </html>
6. Save your work as ***thirteen.htm*** in your ***Chapter 11*** solutions folder.
7. View your work in your Web browser. Your new image on the Web page should look like Figure 11-22.



FIGURE 11-22 Image Viewed in Web Browser

8. If your image does not appear, carefully review the tags in your text editor and make any necessary corrections. Resave your work. Then reload or refresh the page in your Web browser and verify that it displays correctly.

INSTANT MESSAGE

Key the filename *TravelView_Logo.gif* precisely. This includes capital letters *T, V,* and *L* and an underscore _. The file extension is a lowercase .gif. Do not mix up the *R* and the *C* in the tag. Think of the name of the tag, IMaGe SouRCe, so you get the letters in the correct order.

PICTURES OF ALL SIZES

Pictures can be altered in a variety of ways by changing a tag's values. Pictures can be aligned in the center, to the left side, or to the right side of a page. They can be made bigger or smaller depending on your needs.

You can change the size of a picture by using the height and width attributes. Controlling the size of a picture can be helpful in making the page look sharp and interesting. (Changing the size of an image in this way does not change the image or its size. It simply changes the way the image appears on the page.)

In the first part of Activity 11-15, you will align your picture to the right of the page and make it small. In the second section, you will align three images of varying sizes across the page and then place three images vertically on the Web page by manipulating a few values.

1. If necessary, open your ***thirteen.htm*** file in your text editor.
2. Near the end of your document, after your first tag, add the following image tag:
   ** **
3. Save your changes as ***fourteen.htm*** in your ***Chapter 11*** solutions folder.
4. Switch to your browser, and view your addition. The second image should appear smaller and right-aligned as shown in Figure 11-23.
5. Next, switch back to your text editor and add three more images that appear across the screen, with each graphic appearing as a different size. To do so, key the following tags below your second <img src> tag:
   ****
   ****
   ****

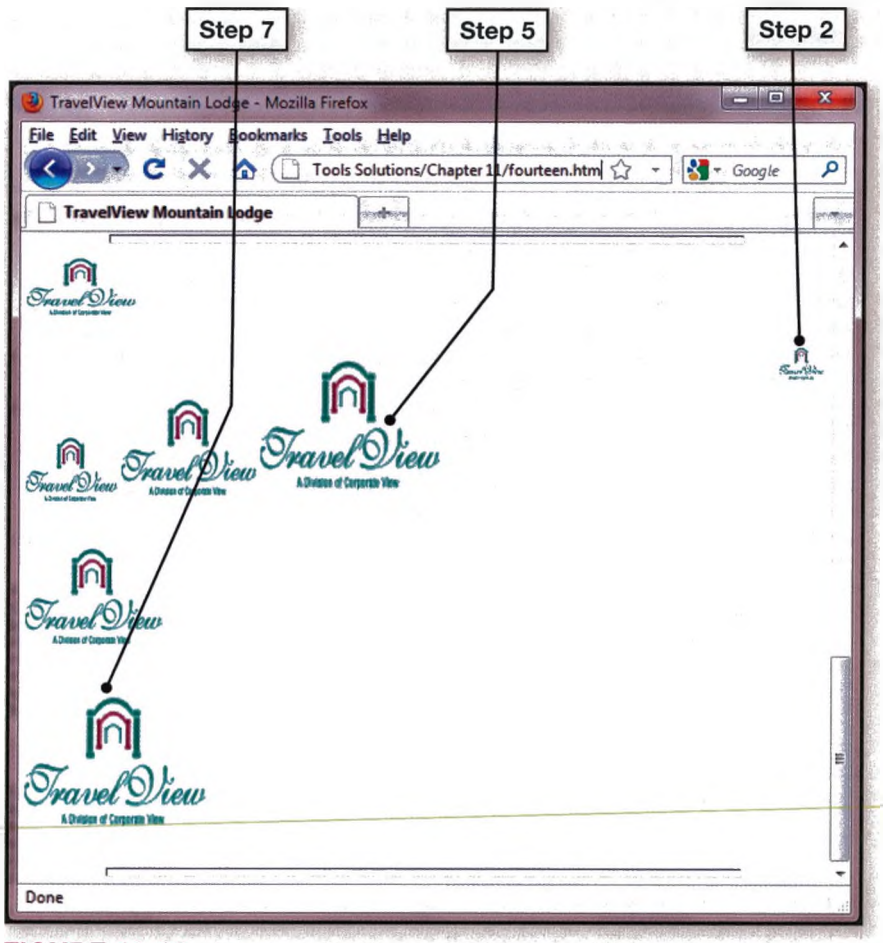


FIGURE 11-23 Images with Altered Attributes and Values

6. Resave your changes to the ***fourteen.htm*** file, switch to your browser, and refresh or reload to view your additions. Your changes should appear similar to what is shown in Figure 11-23. If your graphics do not appear properly, make any necessary corrections, resave, and view again.
7. Just below the three tags you keyed in the previous step, add two more <img src> tags, using tags so that graphics appear vertically. Key these tags as shown here.
   ** **
   ** **
8. Resave your changes to the ***fourteen.htm*** file, switch to your browser, and refresh or reload to view the results of your additions. Check Figure 11-23 to see how the tags and graphics should appear. Make corrections where necessary, and review any changes in your browser.

9. To see how transparent .gif images change to blend in with their environment and change based on the background color of a page, try the following experiment. Switch back to your text editor, and change the background-color value to yellow. *<body style="background-color:***yellow***">*

10. Save your altered file as ***fifteen.htm*** in your ***Chapter 11*** solutions folder.

11. Switch to your browser, open the ***fifteen.htm*** file in your browser, scroll to the end of the page, and view the result of the color change on the images.



Ethics

Picture Piracy

One of the big problems on the Web is picture piracy. Because it is so easy to pull pictures off the Web, many people do so without permission. Many pictures are copyrighted; that is, someone owns them. To use them, you need to obtain permission or pay the owner or the artist.

For instance, Disney has many copyrighted images. The company has taken legal action against website creators who grab and illegally use or alter its copyrighted images.

Consider which pictures you download and use from the Web. Are they free for you to use? Many sites allow the free download of images. For instance, the images you borrowed from the website for this book are authorized for your use.

INTO THE CLOUD

The Browser Wars

In 1994, the only graphical browser available on the Net was called Mosaic. It was freeware created by students and professors at the National Supercomputing Center at the University of Illinois in Champaign-Urbana. It was a big hit, adding as many as 600,000 new users a month. But the fortunes of Mosaic changed in a hurry.

Netscape Communications Corporation was created by some of the same students who had created Mosaic. Now these students were in business for themselves, and they were about to change history. They set out to defeat the growing power of Mosaic by creating a faster browser with more features. Mozilla was the code name for the new browser. The original Mozilla image was that of a funky-looking dragon known as "Mozilla the Mosaic Slayer." Mozilla soon turned into the Netscape Navigator browser.

In the first three months of 1995, Netscape's new browser gained a reputation for being a more efficient and more powerful Web surfing tool. By midyear, the Netscape browser had captured 50 percent of browser users, and by the end of the year, it commanded a whopping 80 percent of the browser market.

Netscape won its battle with Mosaic, but a new battle was brewing. Netscape's dominance was later challenged by rival Microsoft, which created its Internet Explorer (IE) browser. Microsoft gave away copies of its browser in hopes of cutting into Netscape's lead. Microsoft also had an advantage in that its Windows operating system ran on more than 90 percent of personal computers. By bundling Windows and IE together, Microsoft took advantage of a unique marketing advantage.

Microsoft's advantage, however, did not last long. Mozilla Firefox, a new open-source browser, grew out of the ashes of Netscape. The new Firefox browser caught on—slowly at first. Then in 2010, it surpassed IE in the number of users.

Google soon came out with its own browser called Chrome. Google Chrome quickly broke 10 percent and began to put pressure on the two leaders. Apple also created a browser, called Safari, that is popular on Apple computers.

The competition among browsers was a positive thing. It inspired creativity and innovation, which improved the Net experience. In periods where a near monopoly in browser dominance replaced competition, creativity and innovation slowed. Fortunately, the browser battles continue today. As of 2010, the leader was Mozilla Firefox, with IE in second place and the upstart Chrome taking the third spot.

Discussion:

1. Can Google Chrome catch up? If so, what must it do to win this latest browser battle?
2. Can Microsoft's Internet Explorer regain the top spot? What does it need to do?
3. If Firefox is number one today, what does it need to do to stay in the top spot?
4. Which is the best browser? Why?

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 11-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools*.

Building Up: Your Math Skills

Exercise 11-2 CALCULATING MARKUP AND MARKDOWN AMOUNTS

Calculate answers to the following questions.

1. The Athletic Boosters run the concession stand at home football games. They mark up all items 25 percent above cost. They currently pay $0.40 per can for soft drinks. What is the selling price per can of soft drinks?
2. Maria works in a clothing store where employees receive a 15 percent discount on purchases. She purchased a blouse that sells for $17.99. What did Maria pay for the blouse (before sales tax)?
3. You have a friend who works in an electronics store. She told you that she will sell a portable CD player to you for 10% above cost. The cost of the CD player is $35. What would you have to pay for the CD player (before tax)?
4. Buddy's Extreme Sports is having a 20 percent off sale on all in-line skates. Samuel purchased a pair of skates that originally sold for $79.99. What is the sale price of the skates? When Samuel went to the cash register, the cashier gave him a coupon good for an additional 10 percent discount on the sale price. What did Samuel pay for the skates (before tax)?
5. Your business club is selling calendars to raise money for a trip to the state competition. The calendars cost your club $2 each. The supply company suggests that your club sell the calendars for $3.50 each. What is the suggested markup percentage on the calendars?
6. Save your work in your solutions folder as ***Exercise 11-2***.

Building Up: Your Language Arts Skills

Exercise 11-3 FROM THE EDITOR'S DESK: CONFUSING USAGE

1. Open your browser software. Use the bookmark in your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications > From the Editor's Desk**.)
2. Choose the **Numbers** link followed by **Numbers in Text** link. Copy and paste the questions to a word processing document, and answer the questions. (Read the information provided on the Web page, and follow the directions for completing this practice exercise.)
3. Check your answers by comparing them with the answers on the bottom of the intranet page.
4. Save your work in your solutions folder as ***Exercise 11-3 Confusing Usage***.

Career Clusters



Government and Public Administration Careers

Governments are made up of three groups of people:

- *Elected officials*. Presidents, prime ministers, members of Congress or Parliament, governors, and state legislators are elected by the people. They serve for a limited time called *terms*. Their job is to represent the people while leading their governments.
- *Appointed officials*. Judges and heads of government departments, ministries, and agencies are appointed leaders chosen by elected officials.
- *Professional career employees*. Career government employees may work a lifetime in government service. Employment for career government workers is unaffected by elections.

The communication between government and the people has improved with DigiTools. For example, most governments have websites explaining what they do and how they do it. Websites have been posted for national, regional, state/provincial, county, and city government services. This helps governments help their public while reducing costs.

For instance, the U.S. Internal Revenue Service (IRS) was once a paper-based tax collection agency. All tax forms, returns, and IRS statements were printed on paper, stamped, and mailed. Now you can submit tax forms electronically, saving both time and money. In another example, your state, local, or provincial governments have websites informing you of upcoming elections, government services, and assistance programs for those in need.

Review the list in Table 11-2 of possible careers in government service.

Position and Yearly Salary		Position and Yearly Salary	
President of the United States	$400,000	Community Service Manager	$44,540
Vice President of the United States	$223,500	Supervisor and Office Manager	$40,920
Senator	$174,000	Administrative Services Manager	$55,470
Speaker of the House of Representatives	$223,500	Public Relations Manager	$64,280
Judge or Magistrate	$149,132	Compliance Officer	$46,250
Court Reporter	$42,920	Emergency Management Specialist	$45,260
Chief Justice of the Supreme Court	$223,500	United States District Court Judge	$174,000

TABLE 11-2 Career Cluster: Government and Public Administration

Exercise 11-4 GOVERNMENT SITES ONLINE



1. As a team, use a search tool such as google.com, yahoo.com, or bing.com to find four different categories of government websites from the list below. Add samples of each government agency at the national, state or provincial, and local levels.

   National Government: Visit five different websites about elected officials, such as the U.S. Congress, the Parliament of Canada, or the Parliament of the United Kingdom. You may include the President of the United States or the Queen of England or the Prime Minister of Pakistan. You may also include government agencies of interest like the Patent Office or the Internal Revenue Service.

   State or Provincial Government: Visit a website for your state or provincial government.

   Local City, Township, or County Government: Does your city, township, or county have a Web page? Search for it, and see what information it contains.

   Local Safety Services: Search for a Web page for a local fire department. This page might be part of a city or county website. Search for a Web page for a local police department. This page might be part of a city or county government website. Search for local hospital and ambulance services.

2. Open your text editor, and create a Web page listing and explaining the sites the team has found. Include a link to each government website you list on the page. Also include descriptions of the public services each government agency offers. Look at this example:

   U.S. Patent and Trademark Office
   www.uspto.gov
   The role of the Patent and Trademark Office (PTO) is to promote the progress of science and the useful arts by issuing patents and registering trademarks. It promotes intellectual property rights by securing, for limited times, to inventors, the exclusive right to their discoveries and inventions as guaranteed by Article 1, Section 8 of the United States Constitution.

3. Include images in your HTML Web page.

4. Save your Web page as ***Exercise 11-4***, and place a copy in your ***Chapter 11*** solutions folder.

21st-Century Skills

Critical Thinking and Problem Solving

Exercise 11-5 EXTRA HTML TAGS FOR EXPERTS

Here are some new tags to think about. Also, in step 8, there is a thinking challenge for you to solve in HTML. You have learned the skills you need to make all these tags work. Think through the challenge, and give it a try.

1. Open your ***fifteen.htm*** file in your text editor.
2. Before you start, rename your file ***experiment.htm*** so you do not accidentally erase important work that you already completed. Save the new file in your ***Chapter 11*** solutions folder.
3. Add an e-mail link to your Web page so visitors can contact you. Use the following tag so that visitors to your Web page can e-mail you with one click of the mouse:

   Your Name
4. There are other ways to change the look of text. Can you guess what these tags do? Try these tags around certain words to see what effects they create.

   <small></small>
   <big></big>

   <tt></tt>
5. Use the tag to identify the name of the magazine, *Resplendent Rocky Mountain Resorts*, in your ***experiment.htm*** file.
6. Turn a picture into a hyperlink. Try this series of tags, attributes, and values:

   ****
7. To make a picture become your background, insert the background attribute in the <body> tag like this:

   <body background=" TravelView_Logo.gif">
8. Have you ever wished you could just click a link from the bottom of a page and jump to the top without using a scroll bar? Create a link from the bottom of the page to the top of the page. Think it through. You can do it.
9. Resave your Web page, and then open it in your browser to view the changes you made.

Exercise 11-6 IDENTIFY FIVE MAJOR ISSUES FACING YOUR COUNTRY

What are the five major issues facing your country? Go online and search for the latest news and opinion surveys to find out what is on the minds of the people of the nation.

1. List the five issues you have identified.
2. Create a Web page using HTML in your text editor that lists and defines each problem.
3. Using your creativity and critical-thinking skills, propose possible solutions to the five problems. What solutions do you have for these problems? Post these creative solutions on your Web page. Ask yourself the following questions:

   Did you anticipate multiple aspects of the problem?

   Will your solution work?

   Are there several possible solutions to the problems?
4. Make the necessary changes to your HTML document.
5. Save your Web page as ***Exercise 11-6*** in your ***Chapter 11*** solutions folder.

Communication and Collaboration

Exercise 11-7 CREATE A CAMPAIGN WEBSITE

Now that you have answers to the perplexing problems facing the nation, why not run for office and try to implement your ideas?

Imagine that you are a first-time candidate. Create a campaign website in your HTML text editor. In writing your campaign website, consider the *Eight Keys of Dynamic Digital Communication*:

1. Explain to your audience who you are and what impact you want your political campaign to have.
2. Identify the purpose of your campaign.
3. Provide a main overview of your solutions (see Exercise 11-6), and then create a link to your proposed solutions. (Yes, you can borrow from your Exercise 11-6 file.)
4. Make your campaign Web page as interesting and visually appealing as possible using your text editor and the HTML tags you have learned.
5. Add more visual appeal by including an image of yourself on the Web page.
6. Create links to various government sites that relate to the office for which you are campaigning.
7. Save your Web page as ***Exercise 11-7*** in your ***Chapter 11*** solutions folder.

Chapter 12

Online Apps and Gadget Skills

Lesson 12-1 Building Personal New Media Spaces with Apps and Gadgets

Lesson 12-2 Build a Personal New Media Website with Apps

Lesson 12-3 Add Calendar and Map Gadgets to Your Site

THERE IS AN APP FOR THAT



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"There's an app for that." This slogan was the catchphrase for Apple's historic iPhone advertising blitz of 2009. The tagline quickly became true. By 2011, there were hundreds of thousands of downloadable apps and gadgets for the history-making phone. More gadgets are being created every day to solve every imaginable problem. By the time you read this, there will be millions of apps for this... and for that.

Ethics You Are Responsible for Your Online Content

Most organizations try to filter out inappropriate content. Certainly, schools block specific sites. Google, Microsoft, Apple, and Yahoo! provide settings to block inappropriate material. However, there is no way any company, school, or government agency can stop all of the inappropriate and illegal content from sliding through.

In the end, keeping the cloud safe is a matter of personal responsibility. If you come across inappropriate material, tap the close box. If you suspect the content is illegal, report it to your instructor or to the appropriate legal authority. And, most importantly, never post inappropriate material to any Web page, Facebook page, Twitter page, or other online location.

Student after student has learned their lesson the hard way. They have posted inappropriate pictures or statements on their Facebook page or another Web page, and it has come back to haunt them. In one example, a student uploaded an inappropriate video to her Facebook page. Another student captured the video, and copies started showing up on pages of students all over the school. What started as a simple joke turned into a major nightmare. Once the video was uploaded, it was available to everyone connected to the site, and even though the video was removed from the original site, there was no way to track or remove all of the copies that had been made from the original.

Take responsibility and do not add to this problem. Do not accept or forward inappropriate material. Remind other students that it is not okay to embarrass or harass other students online. Here are five rules to live by online:

1. Never write anything online that would be embarrassing if it were said face-to-face.
2. Never post or forward inappropriate messages, pictures, or videos.
3. Do not use inappropriate apps and gadgets.
4. If you stumble onto something that is inappropriate, close out.
5. Support your local law enforcement authorities by reporting illegal online activities.

LESSON 12-1 Building Personal New Media Spaces with Apps and Gadgets

IN THIS LESSON YOU WILL:

Objectives

1. Create an iGoogle account to access online apps and gadgets.
2. Add apps and gadgets to an iGoogle page.
3. Move, view, and delete apps and gadgets.

Key Terms

cross-platform
new media
platform
synchronization

APPS AND GADGETS

Apps are also called gadgets. Many are free and very useful. For example, are you going on vacation soon? Weather apps are very popular and can give you the forecast for any vacation spot in the world. Key the nearest airport, city, or Zip Code, and—quick as you please—the app will alert you to any storms, tornados, or hurricanes heading to that area that may foil your fun. (See Figure 12-1.)

INSTANT MESSAGE

The best weather apps constantly interact with cloud computers to report the latest storms affecting the planet. You can add a weather app to your smart phone, iPad, or personal website on your PC. A weather app can show up just about anywhere!

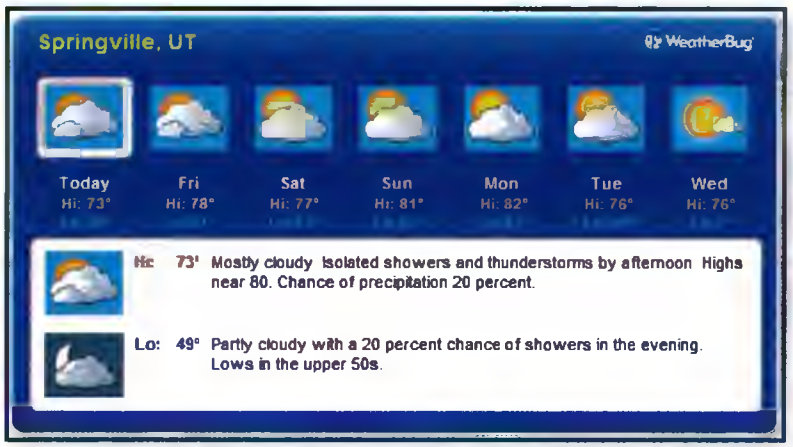


FIGURE 12-1
WeatherBug Weather App

Apps are so cool that all the biggest software companies are in on the act: Apple, Microsoft, Google, Facebook, Yahoo!, and Twitter, to name a few. These companies are examples of big, popular **new media** publishers.

New media includes any interactive digital information available from the Internet cloud. Apps are a big part of the online new media business. Apps and gadgets personalize the online experience.

For example, at the Google options site (www.google.com/options), you can download dozens of Google's new media gadgets, mostly free of charge. (See Figure 12-2.) Some of the most popular include iGoogle, Google Sites, Google Earth, Google Docs, SketchUp, Picasa, and Google Calendar.

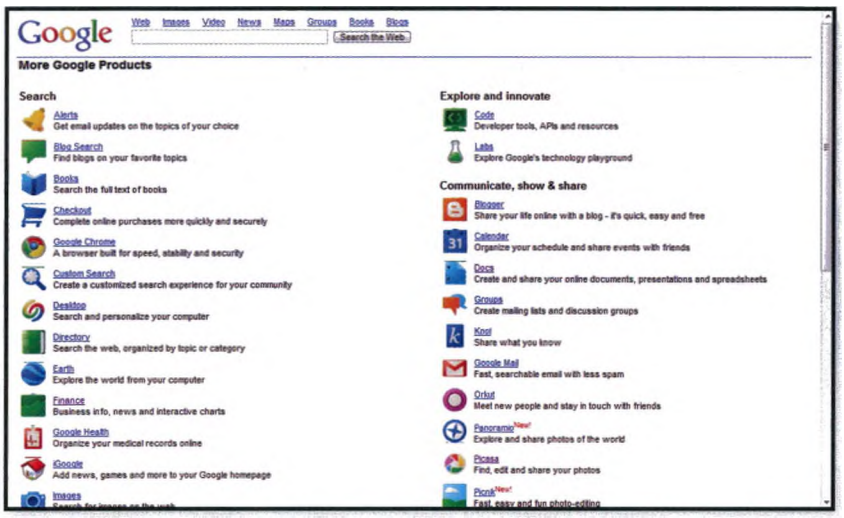


FIGURE 12-2
Apps and Gadgets in Google

A **platform** is a unique type of DigiTool; for instance, smart phones, iPads, tablets, laptops, and desktop PCs are all unique platforms. Most new media apps are **cross-platform** tools. Cross-platform apps work on many platforms. For example, if you update your Google Calendar using your PC, the calendar will also be updated when you view it from your smart phone and iPad. When an app updates itself on multiple platforms, it is called **synchronization**. (See Figure 12-3.)



FIGURE 12-3 Cross-Platform devices allow multiple users in a variety of platforms that include a Blackberry Smartphone, an iPad tablet PC, and a laptop computer.

SELECT A TOPIC OF PERSONAL INTEREST

In this lesson, you will explore the wide world of Web gadgets and apps. Before you begin, select an area of personal interest that you can use to complete this chapter's lessons. What is your favorite sport, hobby, or activity?

- Do you enjoy tennis or golf, baseball or softball, football or soccer, skiing or snowboarding, surfing or longboarding, or some other sport?

- Are you a photographer or artist? Do you enjoy music or art?
- Do you have an interest in politics? Would you like to know more about cultural, social, religious, or historical events?
- Are you interested in a science topic like biology, physics, or the study of birds?

Whatever your interests happen to be, there are "apps for that" in the Internet cloud. In our example, Keisha selected her sport of triathlon. She will apply online apps and gadgets that will help her learn about her sport, plan her training, and schedule her events. In this chapter, you will learn to apply apps and gadgets to an area of personal interest. In Chapter 14, you will apply what you have learned to business apps and gadgets.

Activity 12-1 PICK A TOPIC OF PERSONAL INTEREST AND DEVELOPMENT

1. Brainstorm an area of interest that you can learn more about as you apply the apps and gadgets presented in this chapter. Select an appropriate topic, and have it approved by your instructor.
2. Discuss your ideas with team members. Discover what topics they are thinking about.
3. Pick your final topic. Make your topic big enough so that you have plenty of information to work with.
4. Clear your topic with your instructor.

PLACES FOR YOUR PERSONAL APPS AND GADGETS

INSTANT MESSAGE

In Chapter 1, Exercise 1-7, you were encouraged to try iGoogle. If you have done so, reopen your iGoogle page and create a new tab where you can place all of your apps and gadgets about your area of personal interest. To create a new tab, click the down arrow next to the Home option on the Navigation pane and select Add a Tab, as seen in Figure 12-4. This will create a second and different iGoogle page.

Where can you place your new media apps and gadgets so you can use them whenever you want? Fortunately, there are many places. You can download apps and gadgets to your smart phone or iPad. Or you can collect them on your PC's desktop, as you learned to do in Chapter 1.

In this chapter, you will work in the Internet cloud where Google, Yahoo!, Microsoft Live, Apple, Facebook, and MySpace allow you to collect apps like a squirrel collects nuts. For example, Google gives you the option of setting up an iGoogle page. iGoogle is a simple place to find, collect and use interesting apps and gadgets.

In Figure 12-4, you can see that the new media iGoogle page that Keisha created focused on her favorite pastime, the sport of triathlon. To help prepare for her sport, Keisha created a new e-mail address, *mytriathlon@gmail.com,* and set up this iGoogle page. She set up the personalized page in less than ten minutes!

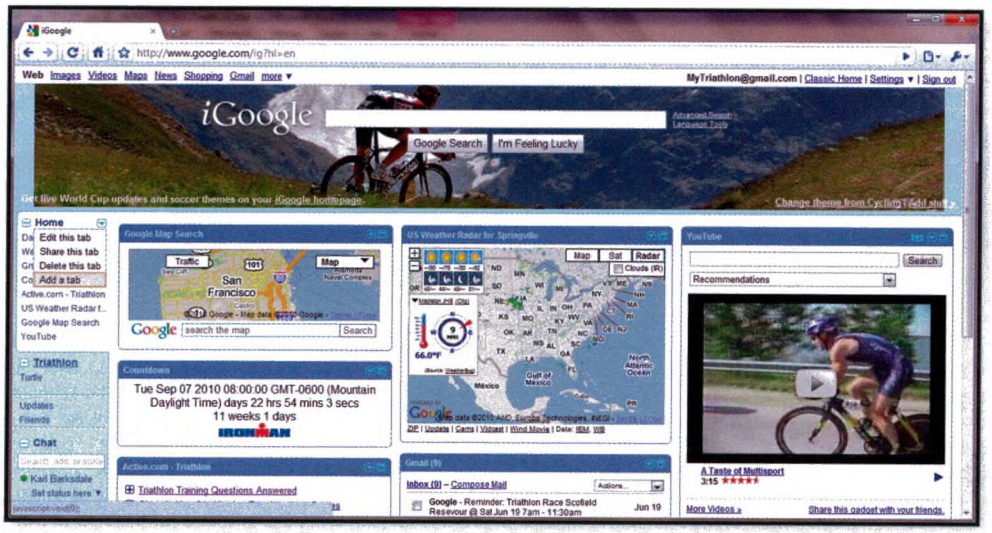


FIGURE 12-4 iGoogle pages can be created quickly around personal interests.

INSTANT MESSAGE

Triathlon is a multisport race involving swimming, cycling, and running. Keisha is training for the ultimate triathlon event, the Ironman. The Ironman will take Keisha on a 2.4-mile (3.86 km) swim, a 112-mile (180.25 km) bike ride, and a marathon run of 26 miles 385 yards (42.195 km). All this must be finished in 17 hours; otherwise, it doesn't count!

Let's look at what Keisha accomplished with iGoogle. In just minutes, she:

- Created a new Gmail account for all her triathlon-related correspondence.
- Set up Chat so she can communicate with her training team.
- Added a Weather Gadget to help her plan her outdoor training and to know the temperature and wind conditions for her competitive events.
- Inserted triathlon-related sports information gadgets.
- Put in a clock and a calendar.
- Placed a Countdown gadget on her page to count down the days, hours, and minutes to her Ironman event.
- Added YouTube so she can watch Triathlon training videos.

Activity 12-2 SIGN IN TO AND CREATE YOUR IGOOGLE ACCOUNT

1. Open your browser and visit google.com. If you do not have a Gmail or an iGoogle account, read the DigiTip below and follow the instructions. If you have an iGoogle or Gmail account already, jump to step 2.

DigiTip

If you do not already have a Google account:

A. Go to google.com.

B. Click Sign In, select **Create an Account Now** as seen in Figure 12-5, and follow the instructions.

C. As you register, there is no need to share any unnecessary personal information. You can even create an account that does not use your real name! Take Keisha, for instance; she created an account with mytriathlon@gmail.com as her login name.

D. After you create an account, you will be asked if you want to customize your iGoogle page. Create a standard page by following the instructions, and then continue with step 4.

2. If you have a Gmail or iGoogle account, go to google.com and click **Sign In** to sign into your personal iGoogle search account page. The Sign In link is found in the top right-hand corner of every Google Search page. If another user has already signed in, you will need to click Sign Out first to sign out the other user before you can Sign In with your own e-mail address and password.

3. Key your e-mail address and password as seen in Figure 12-5.

INSTANT MESSAGE

After you have your iGoogle account, you can view it at any time by clicking the iGoogle link next to the Sign In link. (*Note:* If you ever want to leave iGoogle, click the Classic Home link.)

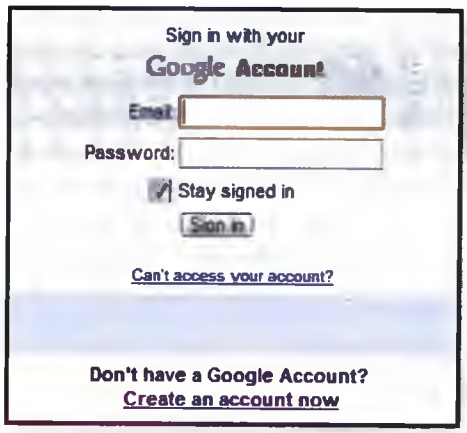


FIGURE 12-5 iGoogle Log In

4. Sign out of iGoogle by clicking the **Sign Out** link in the top right-hand corner of the iGoogle page. (*Note:* If you have time to continue, wait to Sign Out until you are completely finished for today.)

Activity 12-3 SEARCH AND ADD APPS IN IGOOGLE

1. Sign in to your iGoogle page if necessary.
2. View all the various apps that appear across the top; for instance, Web, Images, Videos, Maps, News, Shopping, and Gmail.
3. Click the **more** down arrow link to see more apps and gadgets, including Books, Finance, Translate, Scholar, Calendar, Photos, and Documents.

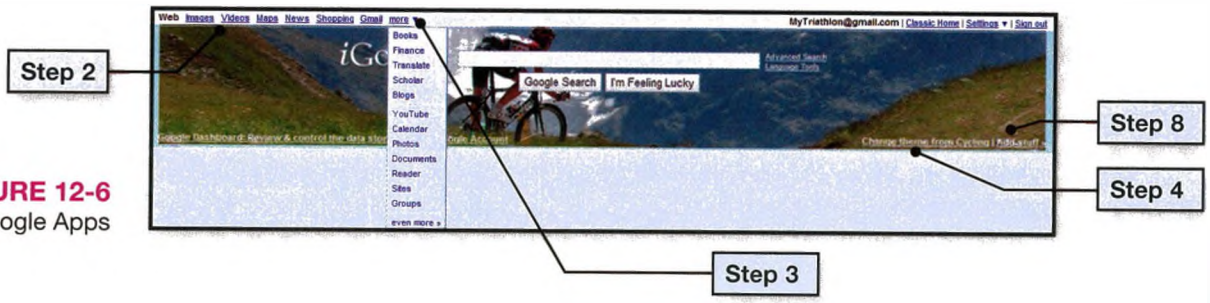


FIGURE 12-6
Standard Google Apps

DigiTip

In this activity, customize your iGoogle page around your sport, your hobby, or a personal topic of special interest. Like nearly everything else at Google, search helps you find the themes you are looking for. If you can't find a theme you like on the first search, change your search keyword. For Keisha, she can key alternative search terms like *cycling*, *swimming*, and *running* because triathlon embodies all three sports.

4. To change the theme of your iGoogle page, click the **Change theme from** link marked in Figure 12-6.
5. Key a keyword search term that matches your area of special interest; then click **Search themes**. For Keisha, her keyword is *triathlon*, as seen in Figure 12-7.

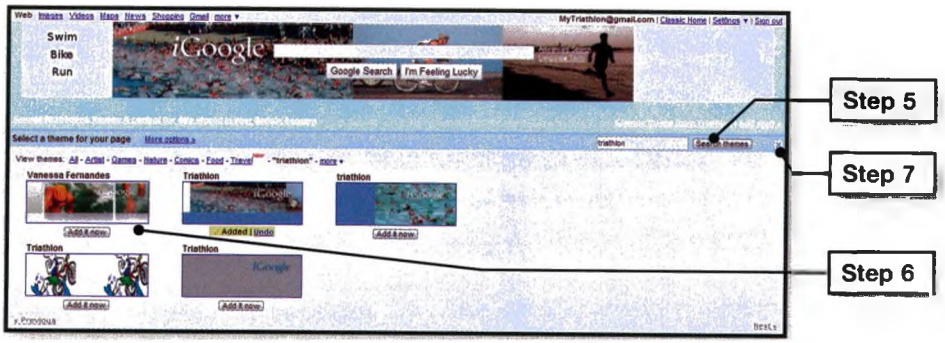


FIGURE 12-7
iGoogle Themes

6. When you find a theme you like, click **Add it now** as seen in Figure 12-7.
7. Close the Themes search window by clicking the **Close** box marked in Figure 12-7.
8. To complete this assignment, you will need to create a theme-based iGoogle page around an area of interest to you. However, you must add the following gadgets or apps:
   - A weather gadget
   - A countdown gadget
   - A news or information gadget
   - A Gmail gadgets

   To add gadgets, click **Add stuff** as marked back in Figure 12-6.
9. Search for your apps and gadgets. Start with a Weather app. Key **weather** in the search box, and click **Search** as seen in Figure 12-8.
10. Pick and add a weather gadget as shown in Figure 12-8.
11. Return to your iGoogle page by clicking **Back to iGoogle home**.

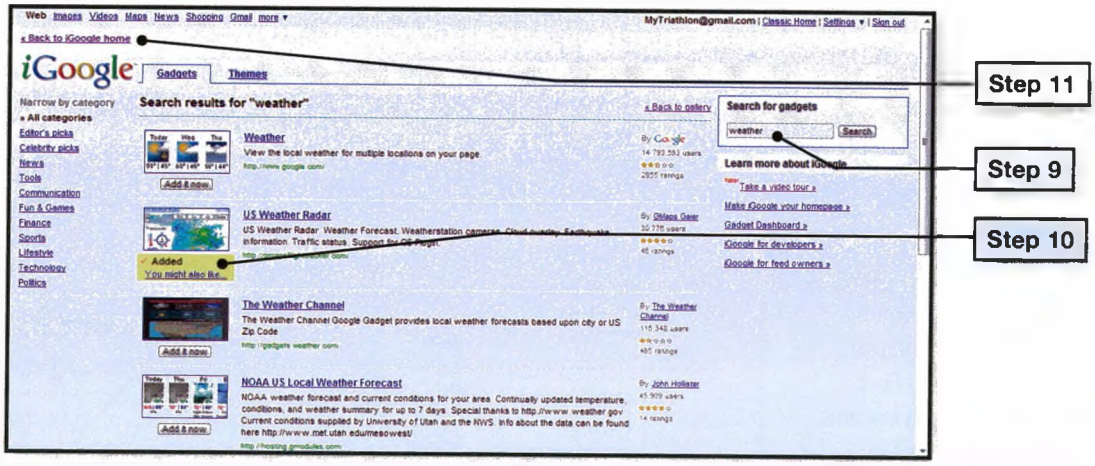


FIGURE 12-8
iGoogle Search Results

Activity 12-4 MOVE, VIEW, AND DELETE GADGETS

1. If necessary, sign in to your iGoogle page.
2. Rearrange your gadgets and apps by clicking and moving them by their title bars. Organize them to your liking as seen in Figure 12-9.

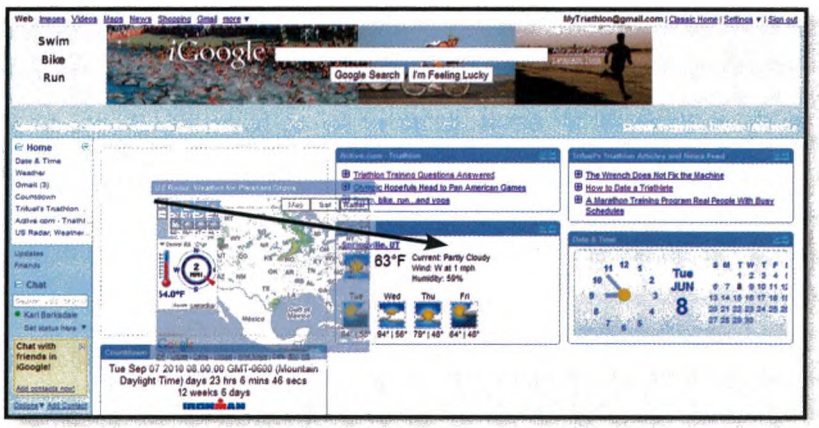


FIGURE 12-9
Moving Gadgets

Change settings to personalize, minimize, or delete gadgets and apps or to learn more about them. All gadgets and apps are a little different because tens of thousands of people are creating them. Still, most apps share some basics. For example, you can usually click the Settings link on the gadget and make changes. For a weather gadget, you need to key a location, usually a ZIP Code or a city name. If you do not like an app, you can delete it from the Settings menu.

3. Click the **Settings** button on your Weather app as marked in Figure 12-10.
4. Pick the **Edit settings** option as seen in Figure 12-10.

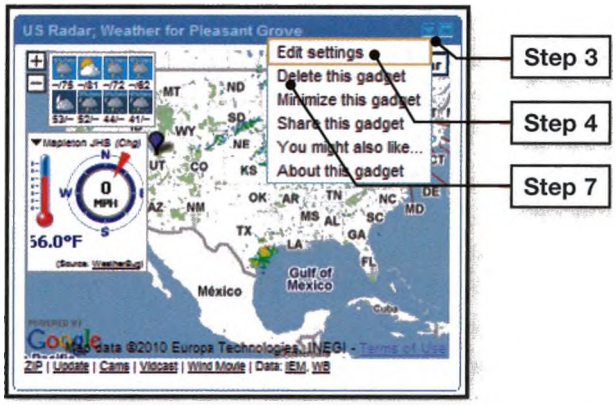


FIGURE 12-10
Edit Settings

5. Follow the instructions to localize or personalize your gadgets. For example, you may need to key a ZIP Code in a weather gadget or a location on a map gadget.
6. Click **Save Settings** to make the changes permanent. (The "Save" command will vary from app to app and gadget to gadget.)
7. Select a gadget you no longer like or need, and delete it by choosing the **Settings** button and picking the **Delete this gadget** option. (You may be taken to a separate screen to delete some apps.)
8. To learn more about iGoogle, click **Add stuff** and look for some of the iGoogle learning options as seen in Figure 12-11. These change from time to time, so look for the latest information.
9. Sign out of iGoogle by clicking the **Sign Out** link in the top right-hand corner of the iGoogle page.

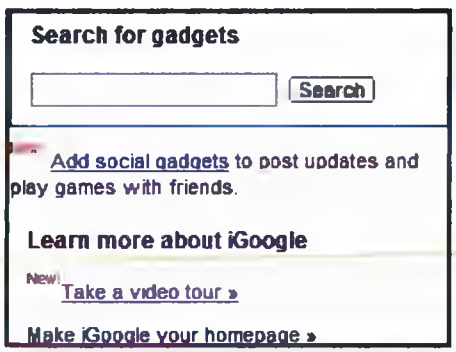


FIGURE 12-11 Apps and Gadgets Search

LESSON 12-2 Build a Personal New Media Website with Apps

IN THIS LESSON YOU WILL:

Objectives

1. Review the *Eight Keys of Dynamic Digital Communication* as applied to websites.
2. Use an app to create a website.
3. Change the theme, colors, and fonts on a website.
4. Create multiple pages with tables and images.
5. Add a counter gadget.

Key Terms

predefined
WYSIWYG

BUILDING YOUR OWN GOOGLE SITES

In Chapter 11, you created simple Web pages using HTML, XHTML, and CSS. But let's be honest, coding websites is a slow, painstaking task. Popular sites like iGoogle, YouTube, Twitter, Wikipedia, and Facebook would fail if everyone had to code his or her own pages in XHTML before using a gadget, downloading a video, reading a tweet, or posting new photos in the cloud.

You may be asking, "Are there apps for that?"

Luckily there are! There are many alternative Web development apps you can use to create wonderful websites. (Read *Digital Snapshot: Alternative Web Apps You Can Use on the following page.*) Google Sites is just one example of many online apps that let you create sophisticated websites without worrying about tags and code. (See Figure 12-12.)

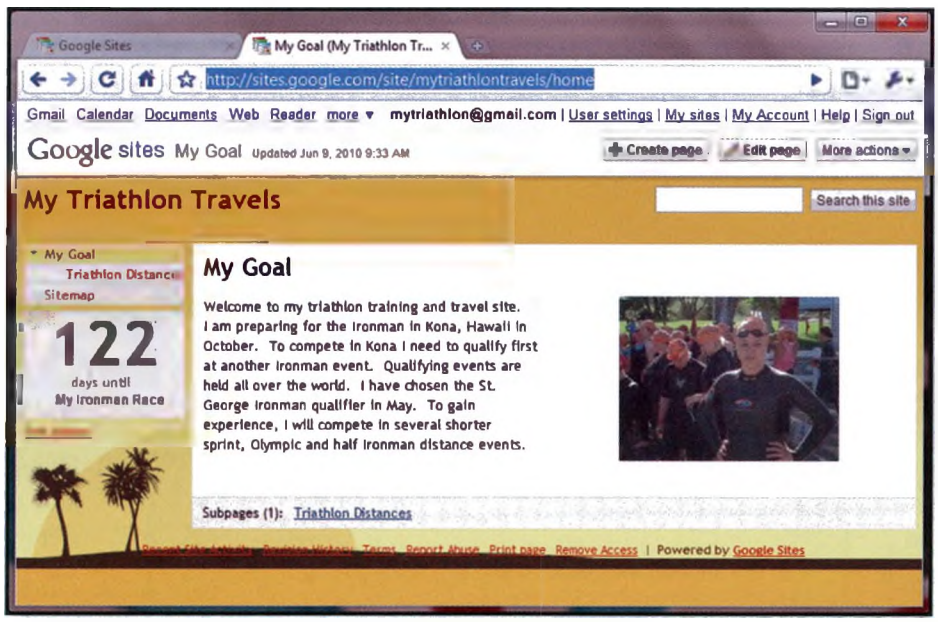


FIGURE 12-12
Customized Website

Like most Web creation apps, Google Sites is a **WYSIWYG** (pronounced wizzee-wig) editor. WYSIWYG stands for "what you see is what you get." In other words, as you design your websites, you see in advance what the pages will look like before they go online.

DIGITAL SNAPSHOT

Alternative Web Apps You Can Use

When working in the Internet cloud, it is all about the online spaces you create. Most spaces are **predefined**. This means your choices are somewhat limited by the service you choose. For example, in Lesson 12-1, you used a predefined space (iGoogle) to organize your apps and gadgets. In another example, consider Facebook. It must limit options to some extent because hundreds of millions of people are using the system. Facebook cannot afford to have something break down, like a massive security failure, that impacts millions of people.

However, what if you want to create your own space and get rid of some of the limits? You can create your own spaces with an entire list of Web development tools. Some are free; others are quite expensive. Each has advantages and disadvantages:

- Adobe Dreamweaver
- Intuit Website
- Coffee Cup Visual Site Designer
- Microsoft Expression Web
- WebEasy Professional

It is impossible to cover all of the Web development tools available to you, so in this lesson, we will use Google Sites to provide examples in the step-by-step activities. If you are using another tool, such as Dreamweaver or Expression Web, adapt each activity to fit your Web app software.

BEFORE YOU CREATE, APPLY THE EIGHT PRINCIPLES

In Activity 12-1, you picked an area of personal interest. In this lesson, you will do some original writing about your area of interest on a website of your own creation. Before you begin writing and creating Web pages, think about how to apply the *Eight Keys of Dynamic Digital Communication* in this next activity. Then apply the *Keys* in the subsequent activities.

Activity 12-5 PREPARE BEFORE YOU CREATE YOUR SITE

INSTANT MESSAGE

To view an example of *Message & Purpose* as applied by Keisha, visit the following website: sites.google.com/site/mytriathlontravels.

1. Open a word processing app. Key your name at the top of the page. Key the heading **Message & Purpose** at the top of the page. Write 50–100 words about your topic, and describe your goals, message, and purpose.
   - What are you going to present?
   - What goals do you have for this online website?
   - Why are you going to present this area of interest?
2. Key the heading **Audience & Impact**. Write 50–100 words describing the potential audience for your website. Use the questions below to help guide your writing.
   - Who will see your website?
   - Who will be interested in your topic?
   - What can you do to make your audience more interested in your theme?

3. Key the heading **Boundaries & Guidelines**. Make a list of the types of things you expect to see on a Web page. You may be limited by the boundaries and guidelines of the Web page development app you are using. Use the questions below to help guide you in creating your list.
   - What kinds of pages do you expect to create with your Web software?
   - What elements do you expect to add to your website?
   - What types of apps and gadgets do you want to add to your site?
4. Key the heading **Research, Take Notes, & Plan**. Begin your research and planning. Search the Internet for information about your topic and area of interest. Take notes and bookmark sites of interest or record the website URLs you find. Use this time to plan what you want to do and say on your site.
5. Save your planning document as ***Chapter 12 Planning***, and place it in your ***Chapter 12*** solutions folder.

CREATING A WEBSITE

In this next activity, the Google Sites app will provide the instructional examples. If you do not have access to Google Sites, learn about other possible website development tools by reading *Digital Snapshot: Alternative Web Apps You Can Use*. You can also use the skills you learned in Chapter 11 to create your project from scratch using HTML, XHTML, and CSS code.

If you will be using Google Sites, sign in as explained in step 1. You can use the same e-mail address and password as your Sign In for Google Sites, iGoogle, Gmail, Google Calendar, and Google Docs. You do *not* need to create a separate Sign In for every service in the Google cloud.

Activity 12-6 CREATE A WEB SITE

INSTANT MESSAGE

To view a sample of the kind of website you will be creating, open your Web browser and visit the following website: sites.google.com/site/mytriathlontravels.

1. Open Google Sites. There are two ways to do this:
   a. If you have already signed into iGoogle or Gmail, click the **more** down arrow and choose **Sites**. (See Figure 12-6 on page 417.) You may need to rekey your password as a security precaution.
   b. Open your Web browser, navigate to **sites.google.com**, and sign in just as you would with iGoogle or Gmail. (If you do not have an account, create one. To learn how to create an account, reread Activity 12-2.)
2. When you see a screen explaining more about Sites, read it; then click **Create new site** to continue.

DigiTip

If this is your first site, you will be asked a few questions before you begin. These questions will help you name and define your site and establish its Web address. Keep the site simple, and pick the defaults as explained in step 3.

3. Make the following choices as seen in Figure 12-13:
   a. Choose the **Blank Template** option.
   b. Name your site. In our example, Keisha named her site *My Triathlon Travels.*
   c. Key your desired Web address, or URL. This is the address visitors will use to access the site online. You need to use a unique name, so this may take several tries. Pick a name that matches the theme for your site. Do not use spaces, and avoid capital letters. Keisha used *mytriathlontravels.* She could have used an underscore to create the illusion of spaces (*my_triathlon_travels*).
   d. Follow the instructions on the screen, including keying the secret word, which is used for security purposes.
   e. Click **Create site** as seen in Figure 12-13.

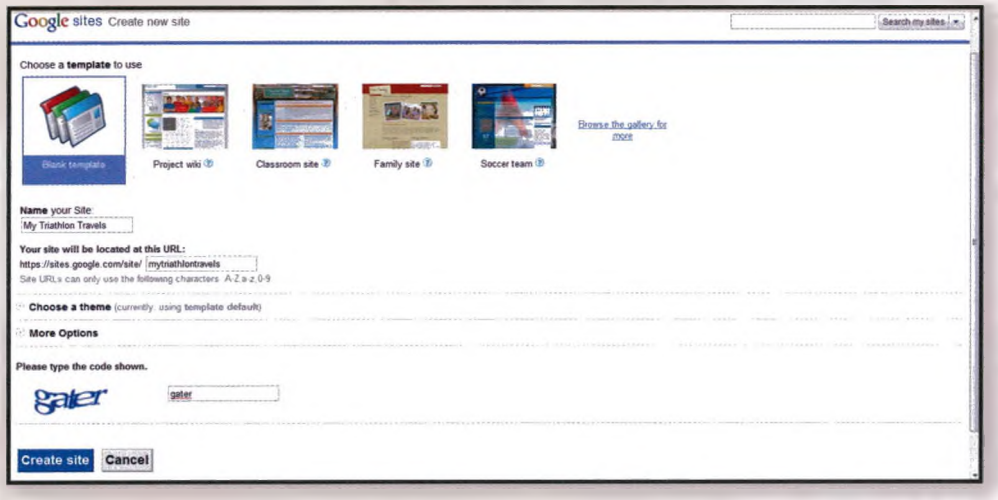


FIGURE 12-13
Website Creation

4. A starter Web page will appear as seen in Figure 12-14. Notice that your title (for example, *My Triathlon Travels*) appears automatically.

5. You will have a chance to edit the page, create a new page, or manage your site by using the controls seen in Figure 12-14. Click **Edit page** to begin working on your page.

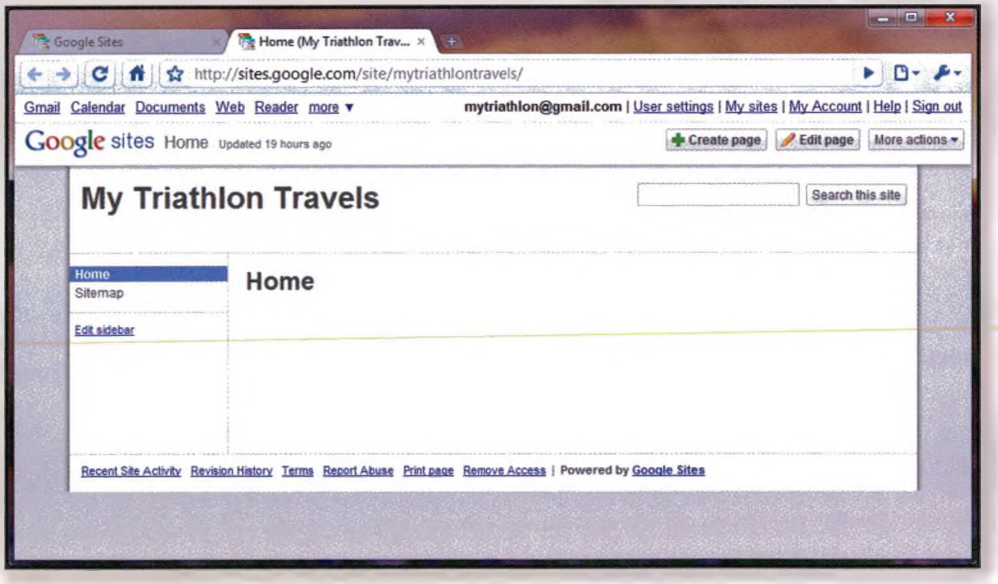


FIGURE 12-14
Editing Website

6. *Create from General to Specific:* This is your home, welcome, or landing page. This is where you explain the general goal or purpose of your project. Think about what you want to say, and say it clearly. Remember, you can always make changes later; so you do not need to write perfectly on the first try. Click the **Home** or title section, and key a new title for your first page.

7. Click on the body section below the title section, and key your text, giving a general overview of your topic or theme. (See Figure 12-15 for an example.)

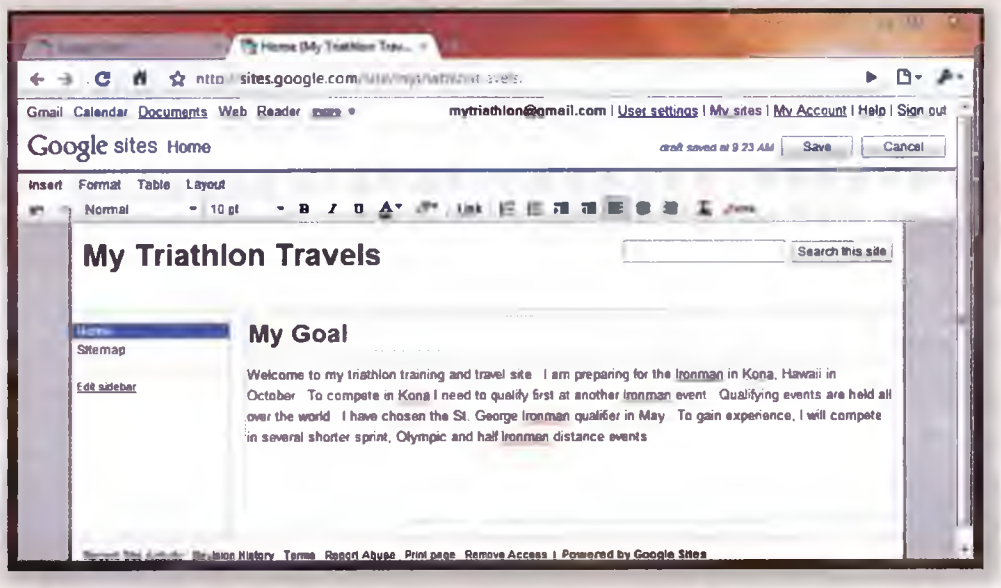


FIGURE 12-15
Title and Body Text

8. *Readability, Style, & Personality:* In Edit mode, you can use many of the formatting tools available in word processing and in DTP applications. Apply Bold, text colors, and alignment strategies just as you would in Word, PowerPoint, Excel, and Publisher. Change the font styles and size, and apply other formatting to your text.

9. You can also change the layout of the page by picking the Layout menu and a style that will suit your needs. In Figure 12-16, we have selected a *Two column (simple)* layout.

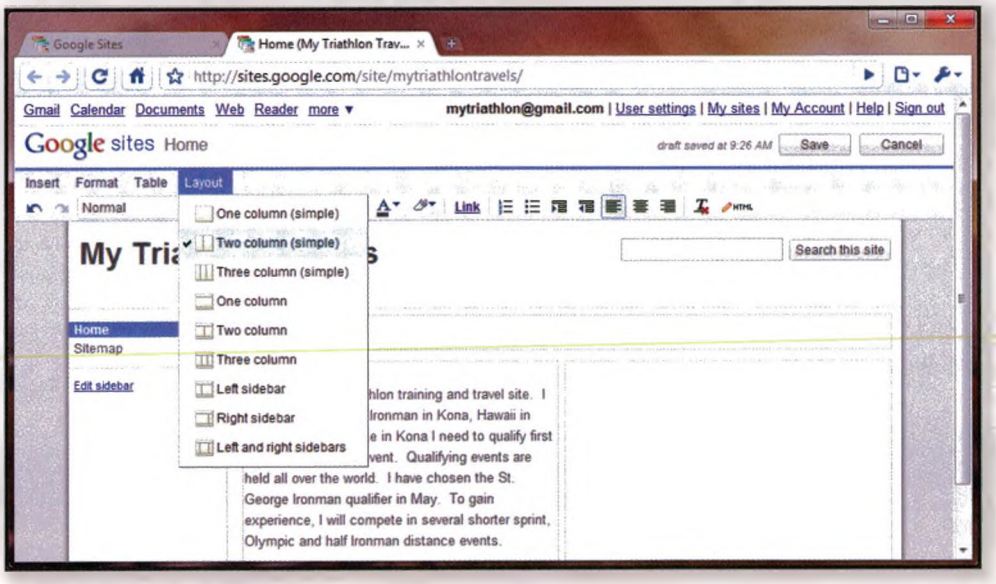


FIGURE 12-16
Page Layout Options



FIGURE 12-17 Image Insertion

10. *Accessibility & Visual Appeal:* Supply visual information to highlight your project's theme. Do you have an image you can use? Do you have a picture of yourself participating in your area of interest? If so, insert it or another image in the new space that has been created. Click where you want the image to go, and click the **Insert** menu. Pick **Image** from the list as shown in Figure 12-17.
11. Click the **Uploaded images** radio button.
12. Pick **Choose File** to add a new image as seen in Figure 12-18.
13. After you have picked your image, a thumbnail will appear. Click the image and then click **OK** to upload the image you have selected.

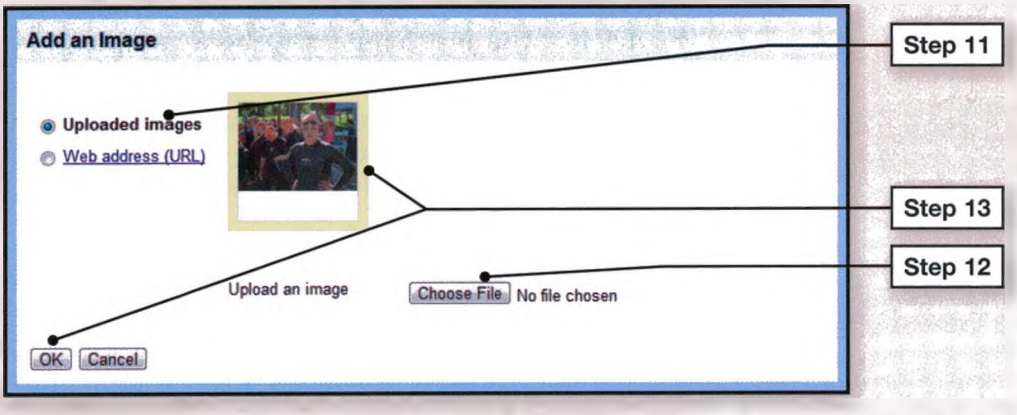


FIGURE 12-18 Upload an image.

14. You will need to Align, Size, Wrap, or Remove your image to fit the available space. In the example in Figure 12-19, we selected *C* for Center and *S* for Small. (*Note:* To make changes to the image, select the image and apply the Align, Size, Wrap, or Remove commands.)

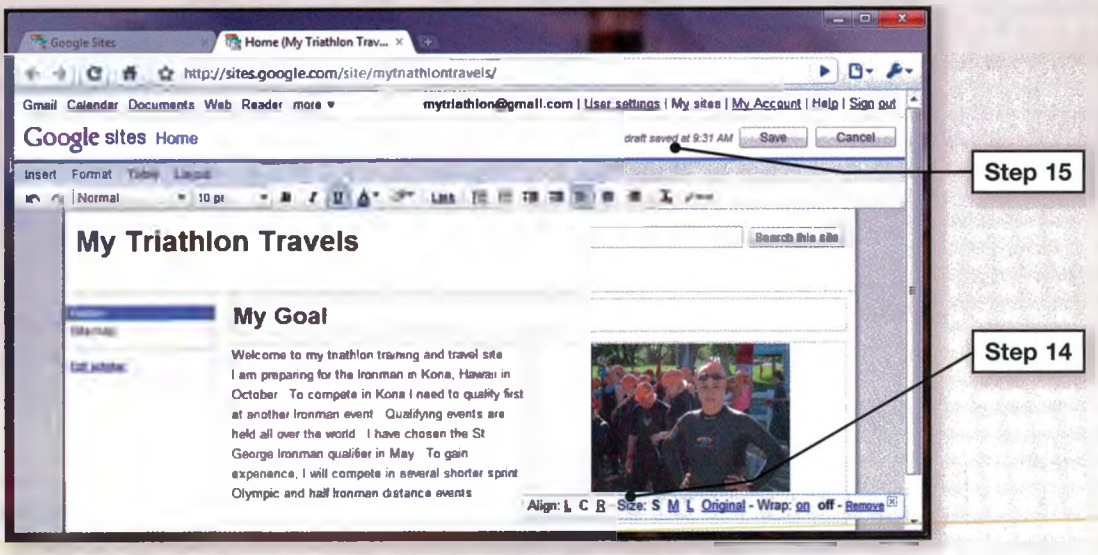


FIGURE 12-19 Size and align an image.

15. *Proofing & Accuracy:* Before you save, proofread and edit this page carefully. Ensure that your presentation is accurate and free from grammatical and spelling errors. Remember, you can come back later and make additional changes. When you are satisfied with the page, click **Save** to save it. Your page is now live on the Internet!

1. If necessary, sign in to your Google account, open your Google Sites app, and select your personal project website.
2. *Accessibility & Visual Appeal:* You can change the visual theme of a page with a few clicks. Pick **More actions** followed by **Manage site** as seen in Figure 12-20.

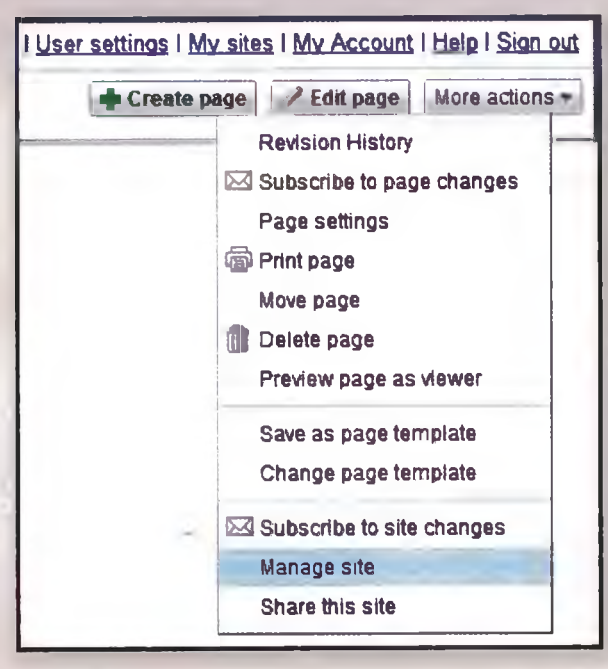


FIGURE 12-20
Site Management

3. On the Manage site screen, you can make a lot of changes. To keep it simple, change the Theme. Pick **Themes** from the *Site appearance* section (as shown in Figure 12-21). Scroll down to view the many options.

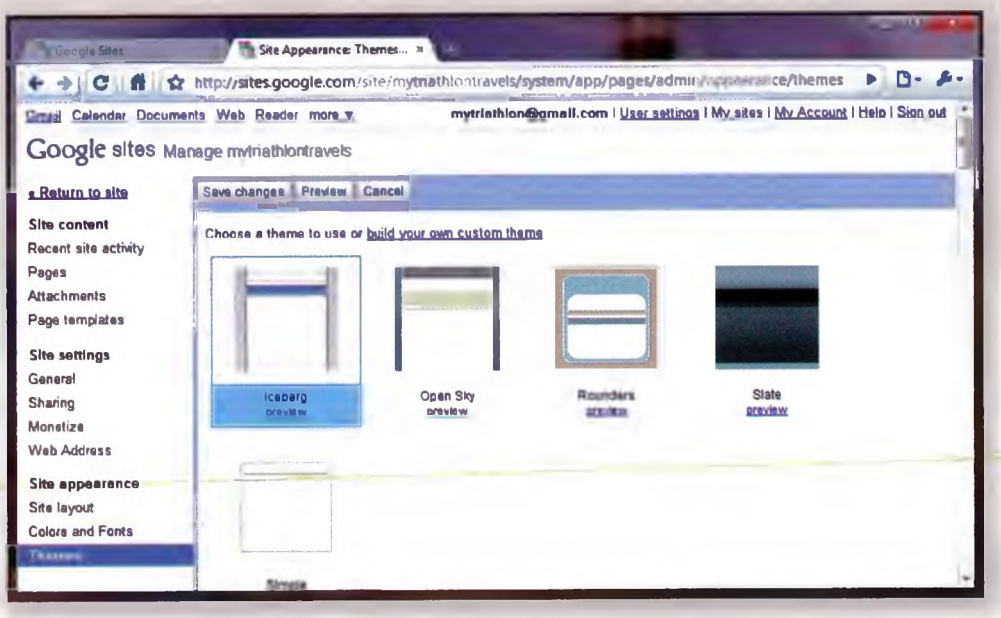


FIGURE 12-21
Theme Options

4. Pick a theme that will add interest to your project, that you like, or that suits your topic (note that you can preview the theme if you choose), and then click **Save changes**.

5. Click the **Colors and Fonts** option under *Site appearance* (as shown in Figure 12-22), and try various Page font options. Change the font and other styles to make the screen easy to read and appreciate. (*Note:* You can also change the background colors or image. You can experiment with many options on this screen.)

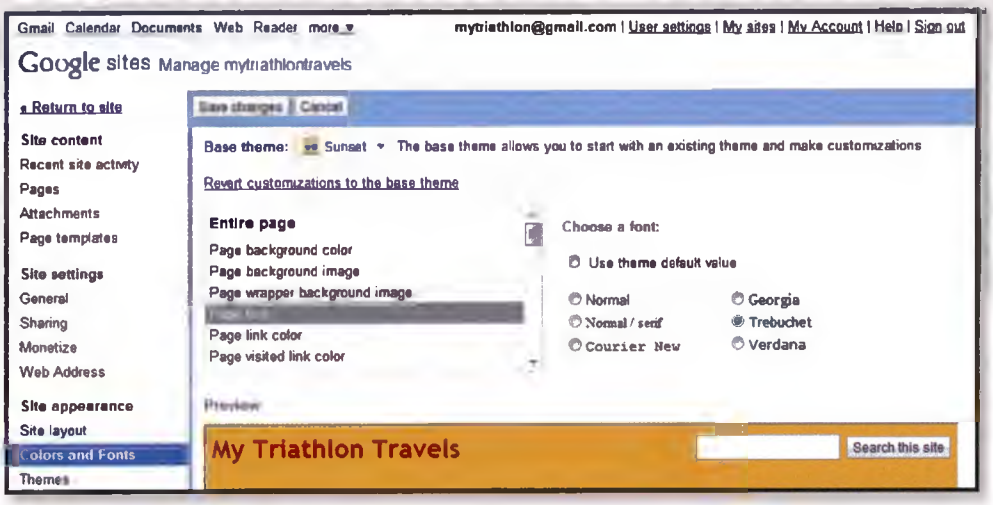


FIGURE 12-22
Font Style Selection

6. Add a Counter or another gadget to your Navigation pane by clicking **Site layout** from the *Site appearance* group.

7. Click **Add a sidebar item**.

8. Scroll down the many options, and choose **Add** under the *Countdown* item.

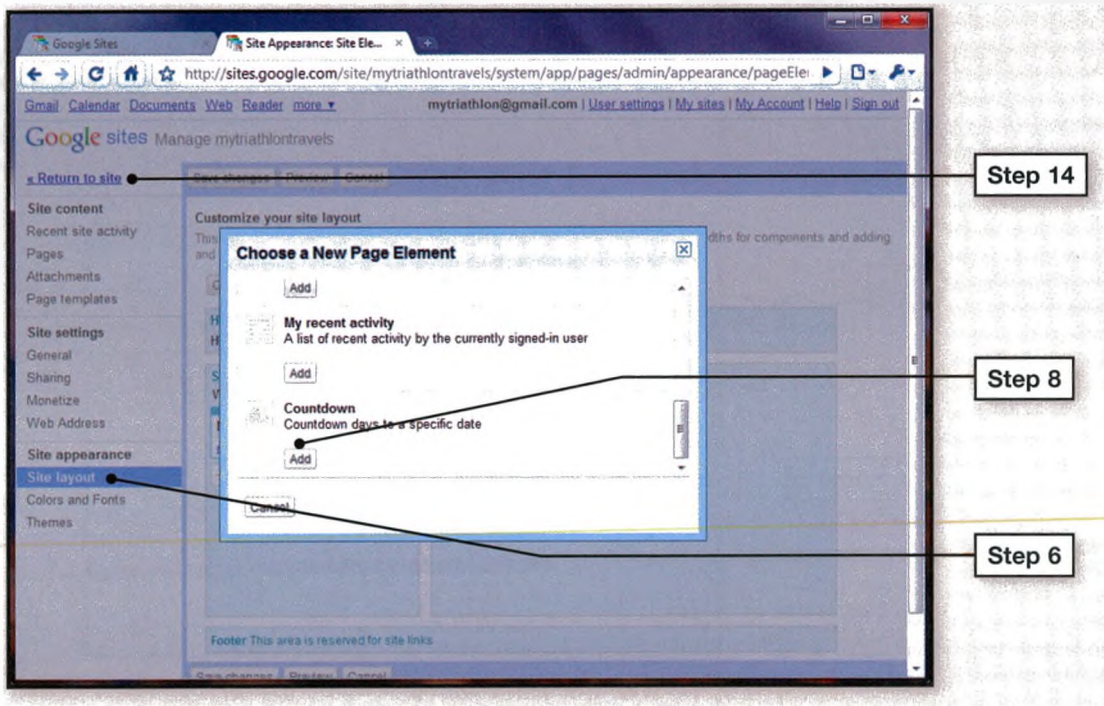


FIGURE 12-23
Adding Counter Element to Navigation Bar



Like most gadgets, you need to enter your specific data to this new sidebar item. Name the counter event, and select a date or deadline. Remember, you can change this gadget or delete it at any time by repeating step 6 and choosing Edit or Delete in the gadget box.

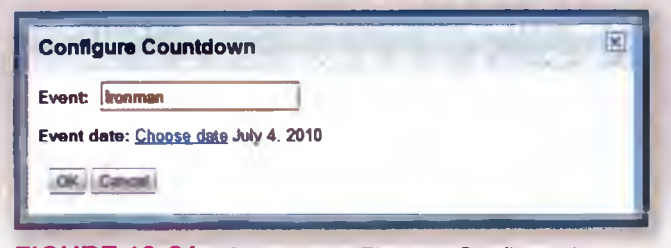


FIGURE 12-24 Countdown Element Configuration

9. Click the **Edit** button under the Countdown sidebar item.
10. Name the event you are counting down to. If you do not have an event related to your project, key **End of Semester**.
11. Select **Choose date**, and pick the date from the calendar that appears. (If you do not have an event to count down to, pick a date for the end of the semester.)
12. Click **OK** to save your gadget.
13. Click **Save changes** to update your page.
14. Click **Return to site** to view all of your changes. (See Figure 12-23.)

ADD NEW PAGES WITH SPECIFICS ABOUT YOUR PROJECT

Your first page should grab the attention of your audience. Now you need to add multiple pages. These pages should be more specific. This is where your research becomes valuable. As you move from a general introduction to specifics about your topic, think about what you want to share. How many new pages do you need to create? How big is your site going to be?

Also, would tables help make your new detailed pages more readable to your audience? Do you need more images to add visual appeal?

This is your chance to be creative. Do not hesitate to experiment and try a variety of options. We will show you how tables work in the next activity to give you more assistance as you plan your new pages.

Activity 12-8 CREATE MULTIPLE WEBSITE PAGES



FIGURE 12-25 New Page Creation

1. If necessary, sign in to your Google account, open your Google Sites app, and select your personal project website.
2. Click **Create page** as seen in Figure 12-25.
3. There are several page options. Pick **Web page** for this example.
4. Name your new page.
5. Place your new specific pages under the general pages by picking the **Put page under** radio button option.
6. Click **Create Page**.

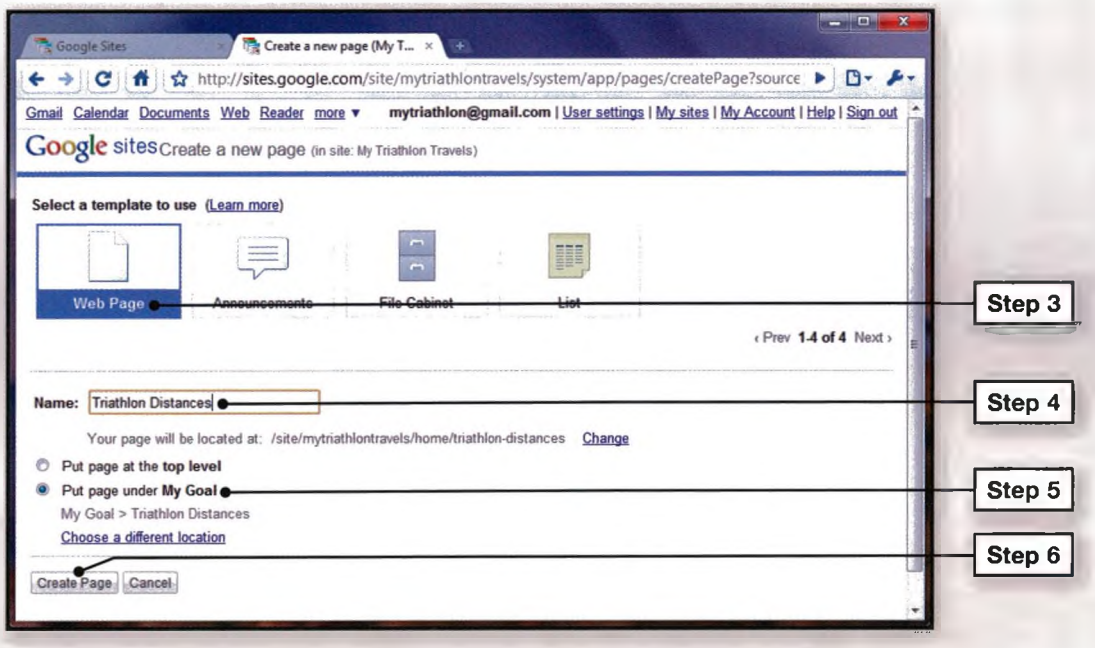


FIGURE 12-26
New Page Options

DidYouKnow

Design and create your next page. Do you need a new layout? Do you want to add a picture? Would a table help explain your topic? Tables can make certain types of information accessible to your readers. Tables in Google Sites work much like tables in Microsoft Word. Create a table in the next few steps.

7. Click **Edit page** to begin making changes.
8. To create a table, click **Table** followed by **Insert table**. Determine the size of the table using the pop-out menu as seen in Figure 12-27.
9. Key your data. See the sample in Figure 12-27.

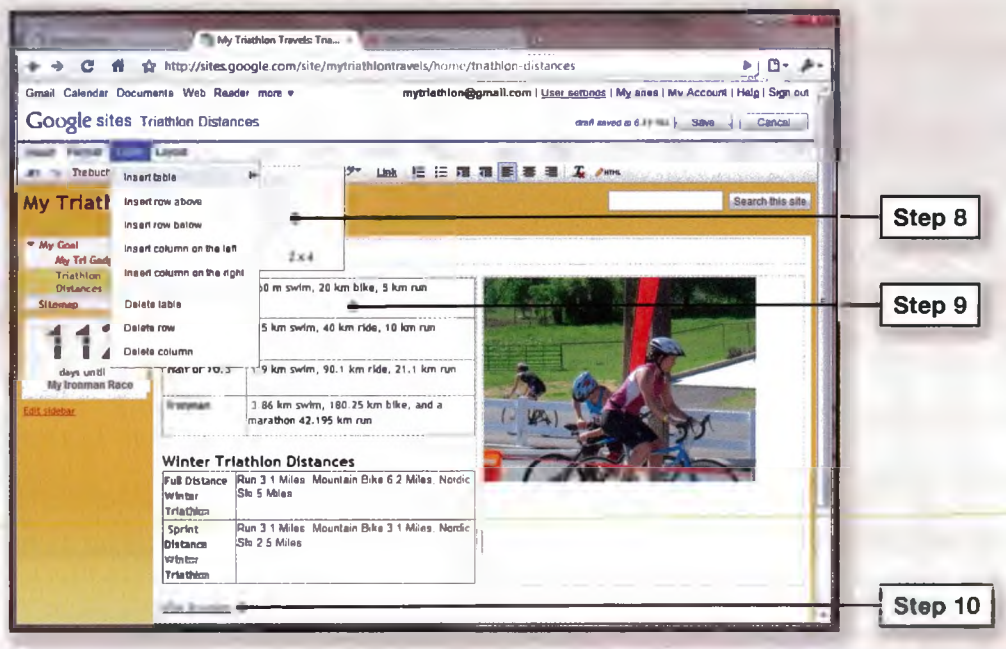


FIGURE 12-27
Table Creation on Website

10. Design and create more pages as needed to expand your topic of personal interest. On one of your pages, create links to other sites that have taught you more about this topic. To add a link from your Web page to another website:
    a. Key the name of your link. In Figure 12-27, Keisha keyed *USA Triathlon*.
    b. Select the words you keyed.
    c. Pick **Insert** > **Link**.
    d. Choose the **Web address** option, and key your URL, or Web address, in the **Link to this URL** window.
11. Make any additional changes to your website. When you are finished, click **Save changes** to view the end result. (*Note:* Sign out if you are finished for today.)

LESSON 12-3 Add Calendar and Map Gadgets to Your Site

IN THIS LESSON YOU WILL:

Objectives

1. Set up and manipulate a calendar app.
2. Key and edit events in a calendar app.
3. Extend, move, and delete events.
4. Add a calendar to a personal project website.
5. Add a map app to your personal project website.

PIVOTAL TIME MANAGEMENT SKILLS

All people need to manage their time. We must juggle our school and work schedules. Even our personal time is often scheduled.

People want their calendar to be available wherever they are and on whatever DigiTool they are using. This is why Google Calendar is saved in the cloud. You can access it with any Internet or smart phone connection. You can set up several different calendars in seconds and view them together or separately as needed.

Take Keisha, for example. She must balance her work, school, and triathlon training schedules. What schedules do you need to manage? In the next activity, create a schedule that will manage your events.

Activity 12-9 CREATE A CALENDAR AND ADD EVENTS

INSTANT MESSAGE

To see a sample of Keisha's Triathlon Training Calendar, visit sites.google.com/site/mytriathlontravels and click My Tri Gadgets in the Navigation pane.

1. Open Google Calendar. As with Sites and iGoogle, there are two ways to open the Calendar app:
    a. If you have already signed in to iGoogle, Sites, or Gmail, click the **more** down arrow and choose **Calendar**. You may need to rekey your password.
    b. Open your Web browser, navigate to **calendar.google.com**, and sign in just as you would with iGoogle, Sites, or Gmail. (*Note:* If you do not have a Google access account, create one as explained in Activity 12-2.)

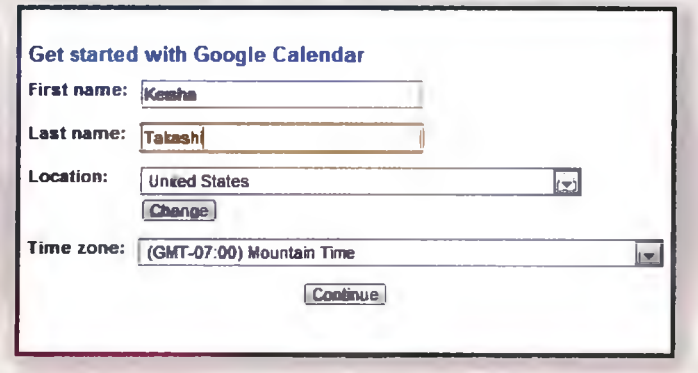


FIGURE 12-28 Location and Time Zone Settings

2. As with most apps, the first time you use your Calendar, you will be asked to key basic information such as your name. Most importantly, you must key your location and pick your time zone as seen in Figure 12-28. Once you have keyed these, click **Continue**.
3. Calendar apps typically display calendars by the **Day**, **Week**, **Month**, **7 Days**, and **Agenda** views. Click each option marked in Figure 12-29.
4. Click the **Month** view.
5. Navigate forward or backward several months by clicking the arrow buttons marked in Figure 12-29.
6. To return to the present day, click the **Today** icon near the arrow keys marked in Figure 12-29. (Notice that the current day is shaded in a different color so "Today" is always easy to find.)
7. Key one of your personal events into your calendar. If possible, key an event around an area of personal interest, a school event, or a work event. If you cannot think of an event, make one up or copy Keisha's Swim Practice event as seen in Figures 12-29 and 12-30.
8. Switch back to the **Week** view.
9. To create an event, click a time slot such as **4:00 PM**. A bubble will appear.
10. Key a title or topic for your event (Keisha keyed *Swim Practice*), and click **Create Event**.

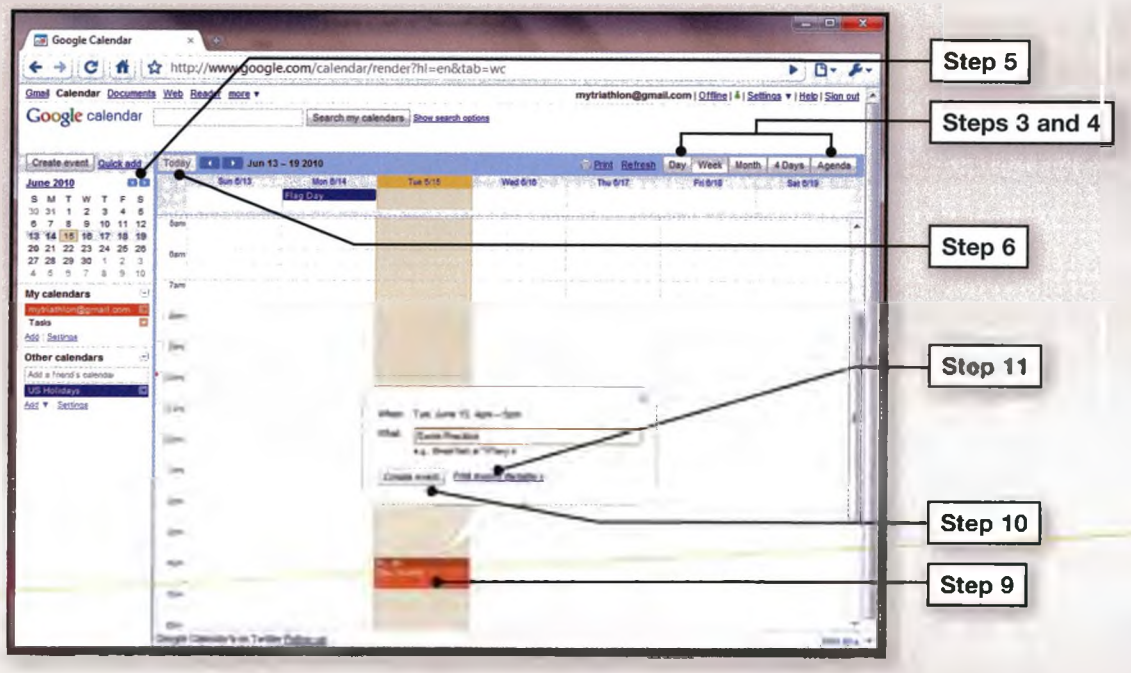


FIGURE 12-29
Calendar Navigation and Exploration

11. The event you keyed in steps 8 and 9 is incomplete. To add detail, click the event and then click **Edit event details**.
12. Key your details, and make changes in the screen that appears. Add information to the **Where** box, and add a **Description** of your event. (See Figure 12-30.)

13. When you have finished making changes, click **Save** as seen in Figure 12-30.

14. Click the **Back to Calendar** link as seen in Figure 12-30.

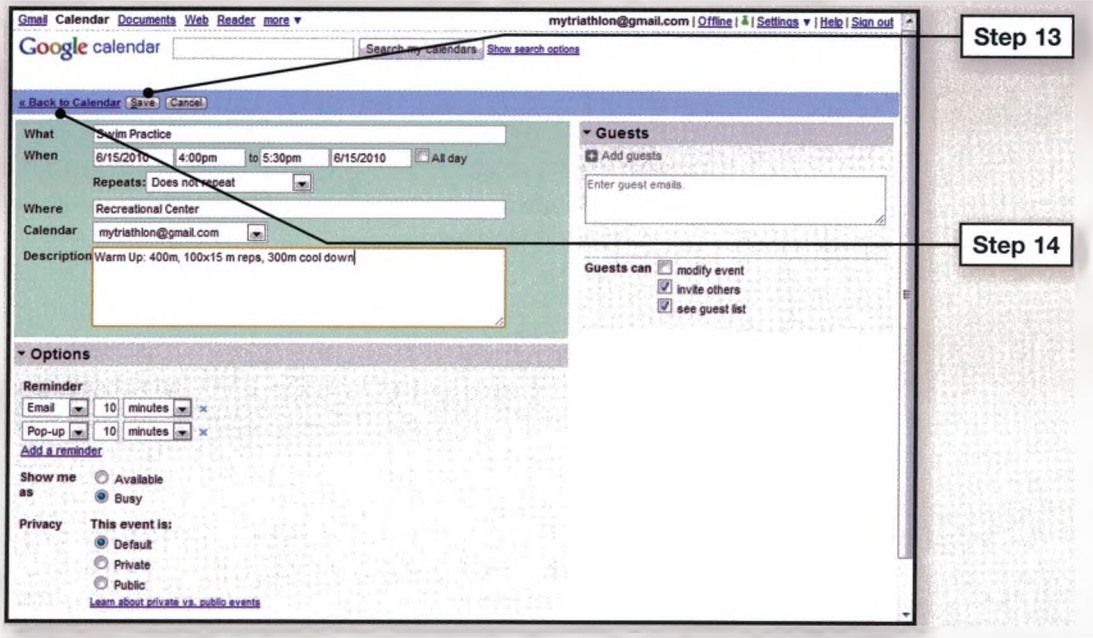


FIGURE 12-30
Event Details

15. Add three more personal events to your calendar. Add details to each event. (*Note:* To make your calendar public, read the next DigiTip.)

DigiTip

Right now you are the only one who can view your calendar. To let others see it, sign in to your Calendar and click **Settings** followed by **Calendar Settings**. Click the **Calendars** tab. Under *Sharing*, click the **Sharing** link. Under the *Sharing* heading, click **Share this Calendar**. To share with everyone in the world, click **Make this calendar public**. If you do not want to share your calendar with the entire world, you can also limit it to just a few people by keying their e-mail addresses in the *Share with Specific People* section. When you are finished, click **Save** and return to your calendar.

Activity 12-10 EXTEND, MOVE, AND DELETE EVENTS

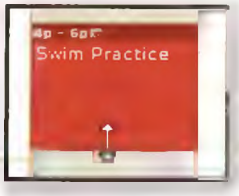


FIGURE 12-31 Event Timeframe Adjustment

1. If necessary, reopen your Google Calendar.

2. Switch to the **Week** view.

3. Pick any one of your events, and hover your mouse pointer over the bottom of the event. When the double-sided arrow appears, click and drag the bottom of the event down several hours to extend the duration of the event. (See Figure 12-31.)

4. To move an event, hover over its title bar. When the hand appears, click on and drag it to Saturday morning at 7:00 AM. (See Figure 12-32.)

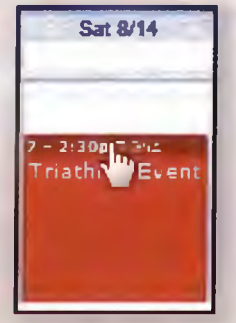


FIGURE 12-32 Selecting and Moving an Event

5. Delete one of your events. To delete, click on the event; a balloon will appear. Click the **Delete** command as seen in Figure 12-33.

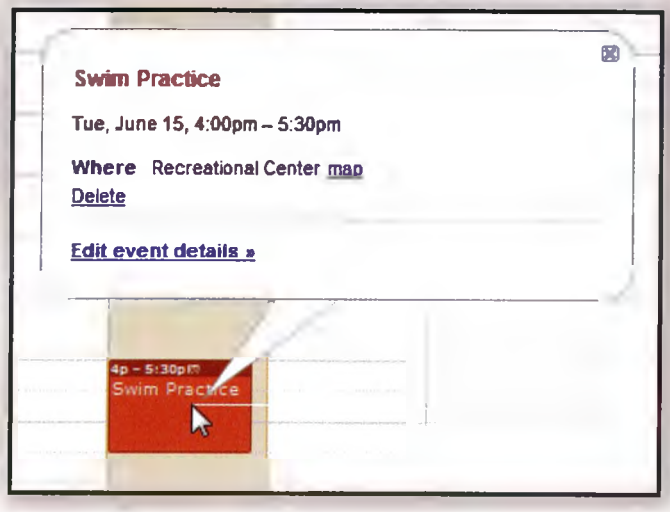


FIGURE 12-33
Event Viewing, Editing, or Deletion

Activity 12-11 ADD AND MODIFY CALENDARS

1. If necessary, reopen your Google Calendar.
2. Switch to the **Month** view.
3. Click the down arrow next to your calendar. Notice the many options you may choose to use later if you wish.
4. Change the color of your calendar by clicking a new color from the color palette as seen in Figure 12-34.
5. On the side panel, look for and click the **Add** command as marked in Figure 12-35.
6. Click **Browse Interesting Calendars** as seen in Figure 12-35.

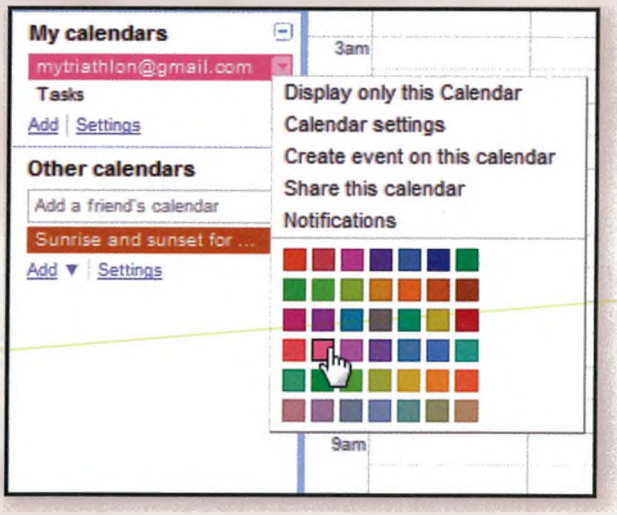


FIGURE 12-34 Calendar Options

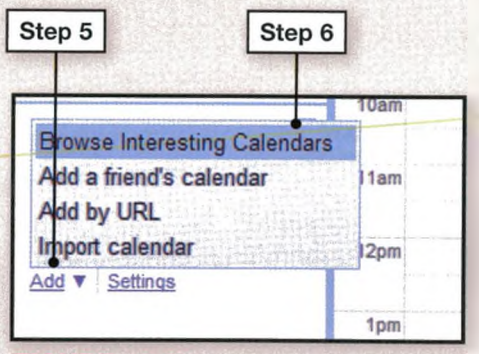


FIGURE 12-35
Browse Available Calendars

7. Search for two different calendars to add by clicking between the various options, such as Holidays, Sports, and More.

8. Pick two different calendars. Select a calendar, and click the **Subscribe** option; for example, Phases of the Moon, Sunrise and Sunset, or National Holidays.

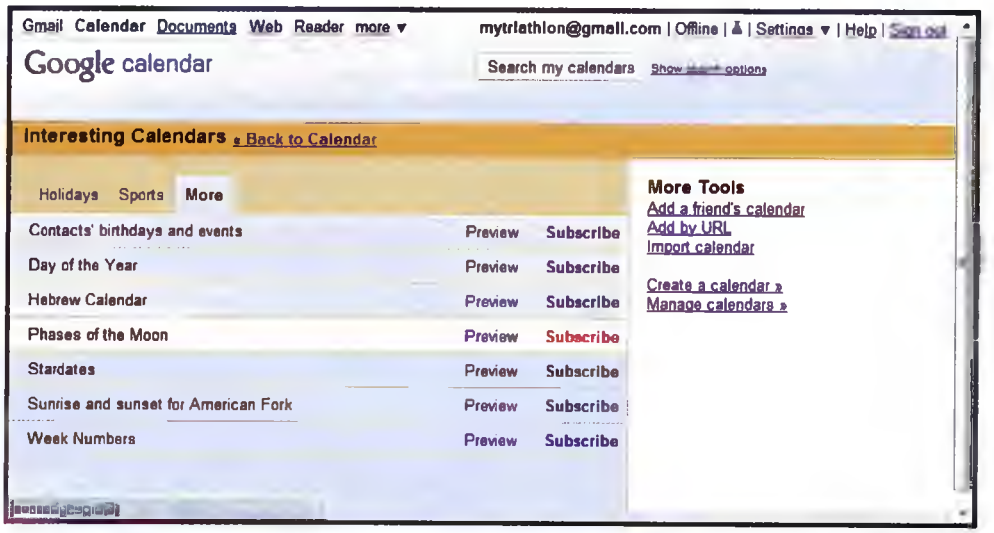


FIGURE 12-36 Calendar Subscription

INSTANT MESSAGE

You also can add more than one personal calendar. For example, you may have one calendar for school, another for work, and another for your personal hobbies and areas of interest. You can view them all at the same time or one at a time. To add a personal calendar, click the **Add** command in your personal calendar section of the Navigation pane.

9. To remove calendars from view, click their names in the Navigation area.

10. To display all three calendars again, click on their names in the Navigation pane until all appear as seen in Figure 12-37.

11. If all the calendars are open, display just one calendar by selecting the down arrow for the calendar you want and choosing **Display only this Calendar** as seen in Figure 12-37.



FIGURE 12-37 Calendar Display Options

Activity 12-12 ADD A CALENDAR AND A MAP TO A SITES PAGE

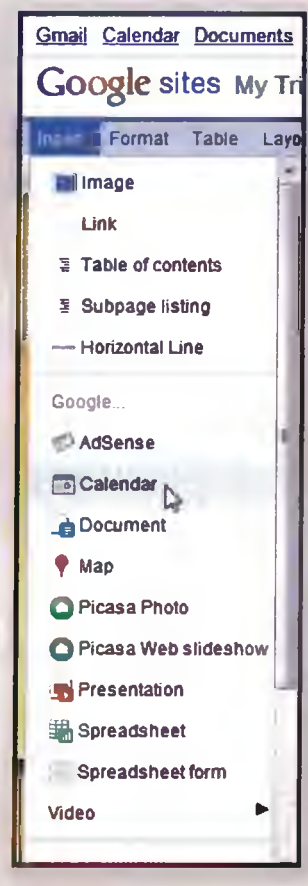


FIGURE 12-38 Calendar Insertion

1. If necessary, reopen your Google Sites personal website created in Lesson 12-2.
2. Create and name a new page as you learned to do in Activity 12-8. (Our sample is named *My Tri Gadgets*.)
3. Click **Insert** followed by **Calendar** as seen in Figure 12-38.
4. First pick your personal calendar as seen in Figure 12-39 and then choose **Select**.

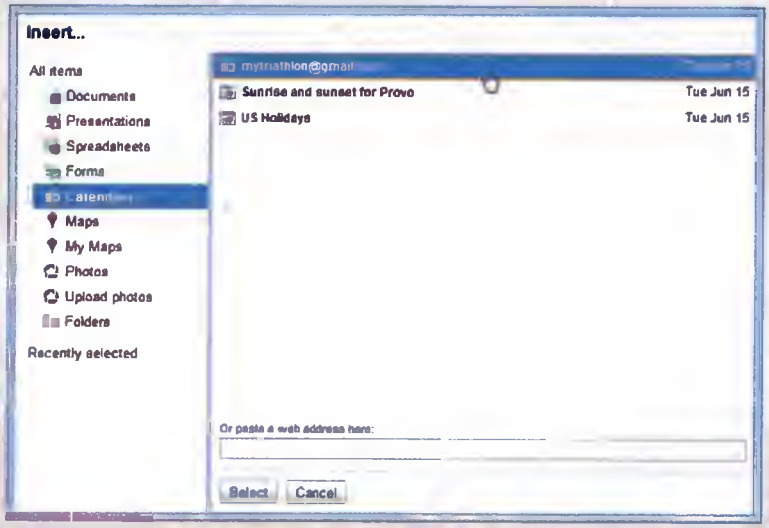


FIGURE 12-39 Personal Calendar Selected

5. In the next screen, set the Height, Width, and View of your calendar. To keep it simple, pick the **Month** view and go with the other default choices as seen in Figure 12-40.

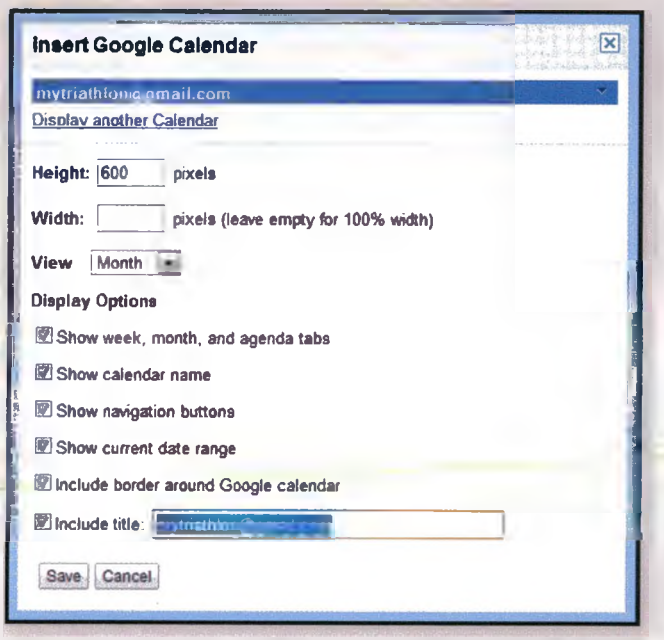


FIGURE 12-40 Calendar Settings for Insertion

6. Click **Save**.

7. View your Calendar in your Web page. Now your personal calendar has been published online for everyone to see.

> **Digital Tip**
>
> For your calendar to be viewed by anyone visiting your website, you must have made your calendar public. If you did not do this, those who come to the website will see a message indicating that they do not have permission to view the calendar.
>
> If you do not want your calendar shown around the world, delete the calendar or this entire Web page or simply change the calendar settings to share only with those you indicate. Those who have permission will see the calendar when they come to this page, and those who do not will see the error message.

8. Add a map to your Web page. Scroll down below your calendar, and choose **Insert** followed by **Maps** as marked in Figure 12-41.
9. Search the location of your map by keying a location for your map in the text box and clicking **Search**.
10. Click on the map, and use the hand to adjust the location of your map as seen in Figure 12-41.
11. Adjust your map settings further by using the + or – control to make the map larger or smaller, respectively.
12. Choose **Select**. Adjust your size settings as needed, and save and view your changes on your website.

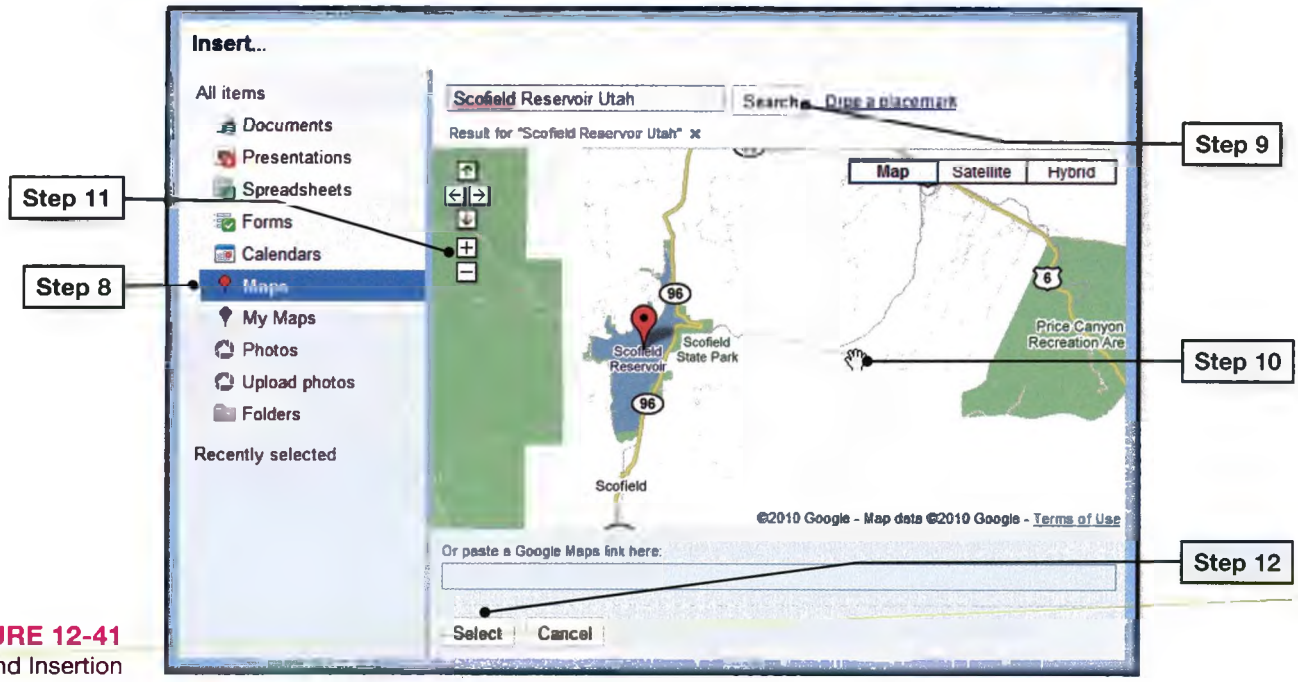


FIGURE 12-41
Map Refinement and Insertion

13. Save your changes to the Web page, and then preview your website. Make any necessary changes, or add more pages.
14. Sign out of the Google pages.

INTO THE CLOUD

This chapter gives you a sense of what cloud computing is all about. Gadgets and apps thrive in the cloud. Take three simple examples: weather, calendar, and social networking apps. In the cloud, whenever changes happen to these apps, they are immediately posted for all to see.

- When the weather changes, the weather apps of billions of people are updated instantly.
- In a business, every team member on a shared calendar app will know immediately if a meeting has been canceled.
- Facebook and YouTube are the ultimate social networking apps. They will let you upload recent photos or videos in seconds. And, if you want, you can notify all of your friends immediately of your latest post.

The cloud is powerful. The instantaneousness of these interactions would have been impossible with old-style PC-based computing. It takes a worldwide cloud to make these kinds of interactions possible.

Here is another example. Website creation is much easier with cloud-based apps. In the old PC-based world, website development was an expensive and tedious process. Compare what you learned in Chapter 11, with all the tags and hand-typed websites, with the ease of Lesson 12-2, where you used an online app to create a website.



Red Hubler/Orlando Sentinel/MCT/Newscom

There are so many innovative things you can do in the cloud. For example, in Exercise 12-2, you and your team will create a math solutions website using online development apps. You will also use cloud-based social media to promote the site. This type of development and worldwide promotion of your work would have been impossible before the development of the cloud just a few short years ago.

Discussion:

1. What new thing would you like to build in the cloud?
2. In this book, we can sample only a few apps. Brainstorm a list of ten apps you think would be most important to you in the future.
3. How does your list of apps compare with others in the class?

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 12-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools.*

Building Up: Your Math Skills

Exercise 12-2 CREATE A MATH SKILLS WEB PAGE AND APPS SITE



Optional: You may want to work with a team on this exercise.

In *Exercise 2-2 Searching for Math Support Online*, you bookmarked online math support websites. You have probably picked up other links to online apps along the way. These sites can help you solve any perplexing math problems that you encounter in the future. This is valuable stuff and deserves to be organized in the cloud.

Consolidate all of your bookmarks and apps on a website that you create. Use what you learned in Lesson 12-3 to create a superlinked math solution site that you can use for the next 50 years if you need to.

The key to this site is to write descriptions of each math-related site and app so visitors know what kinds of problems each site or app solves. Answer this question for each link and app: How can this source help you solve math problems?

1. List as many apps and sites as possible that can help solve math problems. Use your math-related bookmarks from Exercise 2-2 to get started. Add additional apps and sites by doing a google.com, yahoo.com, or bing.com search to find other math learning sites.
2. Create a Web page in the cloud, cataloging and explaining these sources. (You can use Google Sites, Facebook, or another cloud-based app to create this site.)
3. Write a description of each site or app you will be linking to or providing on the site. Explain to the visitor how this app or site can help him or her solve specific math problems.
4. Test each link to make sure it works properly, and proofread the copy (text) explaining each app or site.
5. Add a counter to your site to record the number of visitors.

6. Use social media to advertise your site to a wider audience of students and teachers. Let people know about your site by using the cloud to promote your work. Keep track of the number of people you contact directly.
7. After one week, compare the number of visitors to the site to the number of people you contacted directly. Approximately what percentage of the people you contacted visited the site? (Note that because a single person may visit a site multiple times, your percentage will not be an exact number.)

Building Up: Your Language Arts Skills

Exercise 12-3 FROM THE EDITOR'S DESK: PUNCTUATION

1. Open your browser software. Use the bookmark in your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications > From the Editor's Desk**.)
2. Choose the **Punctuation** link followed by the **Semicolons and Colons** link. Copy and paste the questions to a word processing document, and answer the questions. (Read the information provided on the Web page, and follow the directions for completing this practice exercise.)
3. Check your answers by comparing them with the answers on the bottom of the intranet page.
4. Save your work in your solutions folder as ***Exercise 12-3 Punctuation***.

Career Clusters



Arts, Audio/Video Technology, and Communications Careers

In years gone by, artists created with paintbrush and easel. Authors wrote on paper. Movie directors worked on film. Television companies broadcast from towers to antennas on rooftops. But in recent years, work in this career cluster has gone digital and all of the work is finding its way to the Internet cloud.

Commercial artists rely on computer graphics software, apps, and online tools. Movies can be completely computer-generated. TV signals are bounced off satellites over 20,000 miles high and picked up by receivers that convert digital zeros and ones into high-definition TV and satellite radio. The Internet cloud has become a major outlet for artistic expression that can stream digitally to listeners around the world. Table 12-1 explores some of the careers available in this cluster.

Position and Yearly Salary		Position and Yearly Salary	
Art Director	$65,570	Technical Writer	$51,650
Fine Artist or Painter	$36,330	Interpreter or Translator	$34,680
Sculptor	$36,330	Actor	$36,790
Illustrator	$36,330	Dancer	$28,770
Multimedia Artist	$46,700	Choreographer	$32,750
Animator	$46,700	Musician	$46,690
Fashion Designer	$56,340	Singer	$46,690
News Analyst, Reporter, or Correspondent	$37,800	Photographer	$27,940
Editor	$44,910	Camera Operator	$34,180
Author	$48,120	Film and Video Editor	$42,020
Web Art Director	$80,379	Level 1 Web Designer	$40,864

TABLE 12-1 Career Cluster: Arts, Audio/Video Technology, and Communications

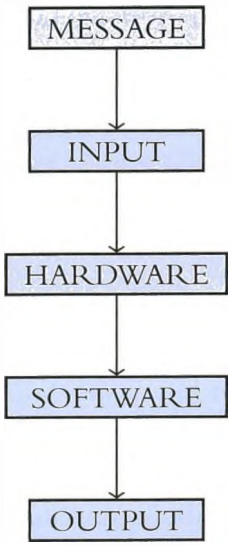


FIGURE 12-42
Digital Message Flow

Professionals in this line of work have creative ideas they wish to communicate. They include artists, writers, musicians, producers, dancers, designers, and Web designers. Each develops creative messages to share with viewers and fans.

Their messages may be factual, entertaining, serious, or frivolous. Such messages are crafted in the minds of creative individuals and developed through the digital message flow, as seen in Figure 12-42.

Exercise 12-4 PROPOSE A CREATIVE, PERSONAL MESSAGE

1. What creative personal message would you like to share, write, draw, design, compose, or perform? Read the list of project suggestions below.
   - **a.** Use an online Web app, a social media site, an online word processor, or a desktop publishing app to develop an online newsletter, brochure, or flyer or some other document communicating a message in the cloud; for example, an online announcement for a school play, sports event, concert, or cultural event.
   - **b.** Use your DigiTools to create a personal reflection, a short story or poem, or original art or photographs to post online.
   - **c.** Use Google Presentations or Microsoft PowerPoint online to create a slide show expressing a message; for example, a report for another class in school.
   - **d.** Use a website app to create a new website that communicates a message you have wanted to develop for a long time.
   - **e.** Make a film. Digitize your movie, edit it, and copy your final movie to an online site for later playback.
   - **f.** Use online word processing software to plan and write a transcript of a radio broadcast. Then record your broadcast, complete with music and sound effects. Stream your result online.
   - **g.** Create traditional artwork using the traditional tools of art. Then scan your masterpieces, converting the images to digital files. Display the art online on a Web page or social media site.
   - **h.** Write a short story or poem; then format and publish it online on a Web page or social media site.

i. Use software to design a new line of fashion clothing, create a landscape design, or design a building; then post your work online.

2. Write a clear, concise proposal that explains your project. Clearly state the main points of the message you would like to communicate to others.

3. Obtain approval for your message and project from your instructor, and then create it in Exercise 12-5.

21st-Century Skills

Creativity, Initiative, & Self Direction

Exercise 12-5 DEVELOP YOUR CREATIVE PERSONAL MESSAGE ONLINE

In Exercise 12-4, you created a plan to share a creative personal message online. This is your chance to implement your ideas.

1. Create the project you proposed in Exercise 12-4.

2. As you work, do not forget the *Eight Keys of Dynamic Digital Communication*.

- Message & Purpose
- Audience & Impact
- Boundaries & Guidelines
- Research, Take Notes, & Plan
- Create from General to Specific
- Readability, Style, & Personality
- Accessibility & Visual Appeal
- Proofing & Accuracy

3. Share your online project with your instructor.

Social and Cross-Cultural Skills

Exercise 12-6 TRANSLATION APPS THAT BREAK DOWN BARRIERS

In Exercise 12-5, you worked hard to create a personal online message. How would you get this message to people who do not speak your language? Are there apps that can bridge the language barriers between people? How can you translate your work?

1. Do a Google, Yahoo!, or Bing search for online translation tools and apps. (*Hint:* Try searching for **Google Translate**.)

2. Key the following paragraph and translate it into two different languages.

   People can translate anything using software on the Internet. This has the potential to bring people of many nations together quickly. Because of the Internet, we are close to having a universal translator that can reduce the language barriers between nations.

3. Save your translations as ***Exercise 12-6*** in your ***Chapter 12*** solutions folder.

Chapter 13

Drawing, Sketching, and Note-Taking Skills

Lesson 13-1 Create OneNote Notebooks, Sections, and Pages
Lesson 13-2 Add Outlines, Change Fonts, and Add Color and Highlights to Notes
Lesson 13-3 Capture Online Notes; Sketch, Handwrite, and Search Notes

WRITE, SKETCH, AND DRAW YOUR NOTES

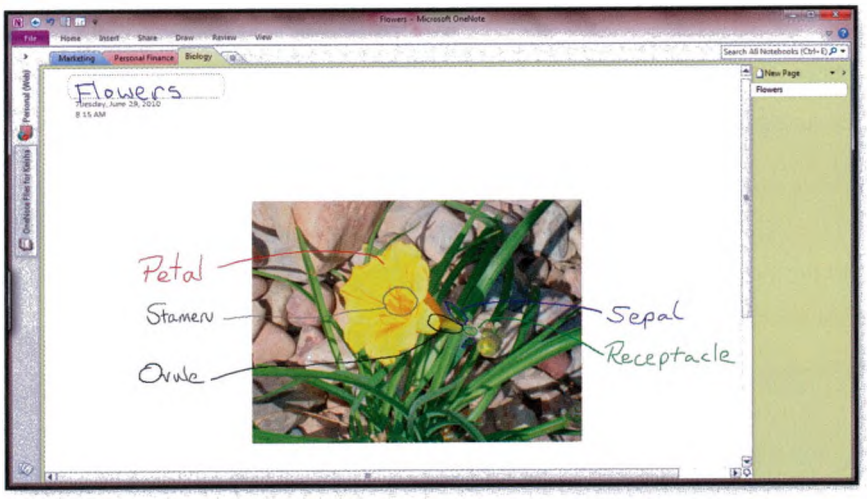


FIGURE 13-1 Images, drawings, and sketches combine to create valuable notes.

As a student, you will attend hundreds of classes and hear thousands of lectures. You will take notes for dozens of subjects. And somehow you must keep all this information organized so you can study it, remember it, and pass tests on it.

Taking notes is described as boring by many students. And it is an intimidating process to some. Luckily, as you learned in Chapter 12, there is an app for everything, even note taking! OneNote is an app from Microsoft that can help you streamline the note-taking process. (Read *Digital Snapshot: Note-Taking Rules.*)

Most notes are words written into notebooks or keyed into a computer. But notes should include drawings, images, doodles, and sketches too. Often, images and diagrams will capture information much better than words ever can. For example, in Figure 13-1, a biology student is labeling and drawing with different colors on a picture of a flower in an effort to memorize its parts for an upcoming test.

NOTE TAKING: A LIFELONG SKILL

Note taking is not limited to the classroom. Serious note taking occurs in the boardrooms of every business. Lawyers take notes when they meet with clients. Doctors and nurses record notes of patient visits. Biologists record the activities of the organisms they study. (Scientific observations are often called *field notes.*) Government agencies take detailed notes of every official meeting. Official notes, whether for governmental meetings, business meetings, committee meetings, or any other organized meeting, are called *minutes.*

Let's face it; you will be taking notes the rest of your life. You may need to take notes from things you read, hear, or observe. Make no mistake: Note-taking is an essential skill. The unforgiving truth is that great note takers get better grades than those who do not take notes well.

In this chapter, you will learn to use OneNote to take great notes whether written, keyed, sketched, or drawn. It turns out that with tools like OneNote, note taking does not have to be drudgery; in fact, it can be sort of fun.

DIGITAL SNAPSHOT

Note-Taking Rules

There are three parts to the note-taking process:

1. Capture
2. Organize
3. Search

***Part 1:** Capture the information you need and want.*
Note taking is *not* about capturing everything—it is about capturing everything that is important to learn and remember. Capturing requires active focus. You need to be listening, observing, and thinking about what you are learning and make quick judgments about what to include and what to leave out of your notes.

Many tools can help you capture information. Obviously, apps like OneNote are helpful. And they allow you to be creative. For example, you can capture audio and video notes with your computer, iPad, tablet PC, or smart phone. And you can even snap a photo with your cell phone, as the biology student did in Figure 13-1. Information gathered in this way can then be collected and organized digitally.

With all the high-tech tools available, remember that one of the simplest and most reliable note-taking tools is the common pencil. There is no need to apologize for going low tech if it works for you.

When capturing your notes, be efficient, be creative, and remember these additional rules:

- Write clearly.
- Do not record everything. Record only key points and ideas. (Exceptions exist to this rule. In certain scientific fields, you must try and capture all the data you observe.)
- Use lists to help summarize important details and facts.
- Use drawings, diagrams, and sketches whenever possible. (Even if you are not an artist, drawing and sketching in your notes can increase understanding and trigger your memories later.)
- Remember, you can capture images and information from websites and plop them into your digital notes, where you can mark them up and draw all over them. (See Figure 13-1.)

***Part 2: Organize** your notes for focused study, search, and retrieval.*
The most effective note takers review their notes shortly after they take them—while the information is still fresh in their minds. Some rewrite and others color-code their notes to highlight key ideas. Most successful note takers create a system of capture that makes organizing a simple task. For instance, some students draw a line along the margin of their paper for drawings of flags, stars, or other signals that identify key bits of information. (OneNote has incorporated these little drawings for use.)

When capturing digitally, do the following:

- Label your notebooks, section tabs, and page tabs clearly.
- Use color to make your notes more interesting.
- Scan and convert handwritten notes into digital notes for efficient search and retrieval.

***Part 3: Search** and retrieve the exact information you need.*
You need to be able to find exactly what you are looking for, and do it quickly, as you review for an exam or prepare for an essay. One of the new innovations in OneNote is the ability to use Google-type searches of your personal notes. Since many notes are handwritten, the software needs to be able to convert your handwriting into text to analyze it for keywords. If you follow the suggestions above in the capture and organizing phases of your note taking, this step will largely take care of itself.

LESSON 13-1 Create OneNote Notebooks, Sections, and Pages

IN THIS LESSON YOU WILL:

Objectives

1. Create a new OneNote notebook.
2. Create new sections in a notebook.
3. Create and name pages in a section.
4. Delete unwanted containers, pages, and sections.
5. Expand and shrink navigation and page areas.

Key Terms

archive
notebooks
pages
section

WHAT IS ONENOTE?

OneNote provides a single place to capture, organize, and search your notes, thoughts, and ideas. No more shuffling through your paper-filled binders and backpack for the notes you need. You always have digital access to your notes far into the future. And with OneNote, you never run out of paper or ink!

OneNote is Microsoft's note-taking, sketching, and archival app. To **archive** means to store both writing and images for later retrieval. When you archive your notes in OneNote, you can search for them the same way you do a Google search on the Internet.

HOW ONENOTE WORKS

OneNote allows you to take notes with a keyboard, a digital pen, or speech recognition tools. You can even add files and graphics from nearly any source. Take a look at the OneNote interface in Figure 13-2. Notice the familiar File, Home, Insert, and other tabs used in Word, Excel, and PowerPoint. (With OneNote, however, you must click the tab to display the commands.) There are also many additional tabs you may not be familiar with, which will be explained in this chapter. Most importantly, there is a large note-taking area, as shown in Figure 13-2.

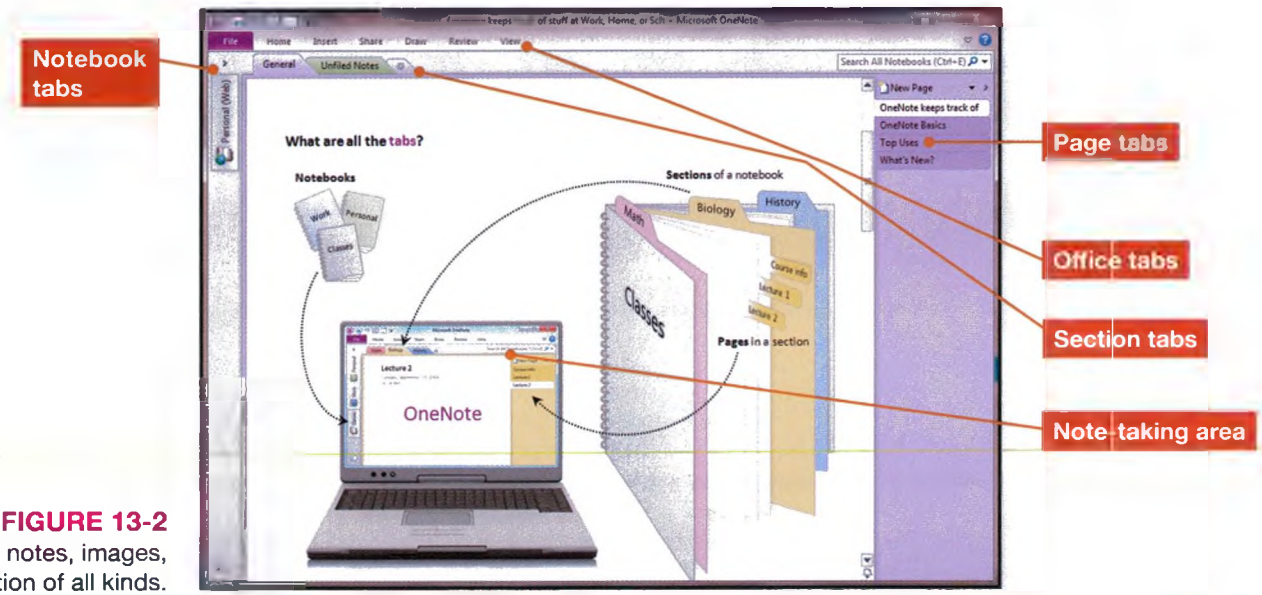


FIGURE 13-2
OneNote can collect notes, images, and information of all kinds.

INSTANT MESSAGE

Notice that every OneNote page is automatically stamped with today's date.

Information in OneNote is organized in **notebooks**. You may keep just one big notebook or create separate notebooks for major topics like school, personal activities, and business activities.

Inside notebooks you will find **section** tabs. You can create as many sections as you need. Generally, you will create a section for each major topic.

A section can have as many note-taking **pages** as you care to create. In this activity, you will create a new notebook and add sections and pages to it. You will then practice taking notes as if you were attending a marketing class.

Activity 13-1 GETTING STARTED WITH ONENOTE

1. Start OneNote.
2. Choose **File** > **New** to create a new notebook.

DigiTip

In the New Notebook window, you will have a choice to make. (Your choice is based on your access rights at your school. Check with your instructor as to the options you can use. If you are not sure what to do, default to the My Computer option as shown in Figure 13-3. You can change these options later.

3. Decide where you want your notebook to appear. Choose one of the following:
   - **Web:** This option saves a copy of your notes in the cloud.
   - **Network:** This option saves notes only on your local (i.e., school) network.
   - **My Computer:** This option saves your notes only on your computer. Pick **My Computer** if you are unsure which option is best.
4. Browse to your folder location if necessary, and name your OneNote notebook. In our sample, we have named the notebook **OneNote Files for Keisha**.
5. Pick **Create Notebook** as marked in Figure 13-3.

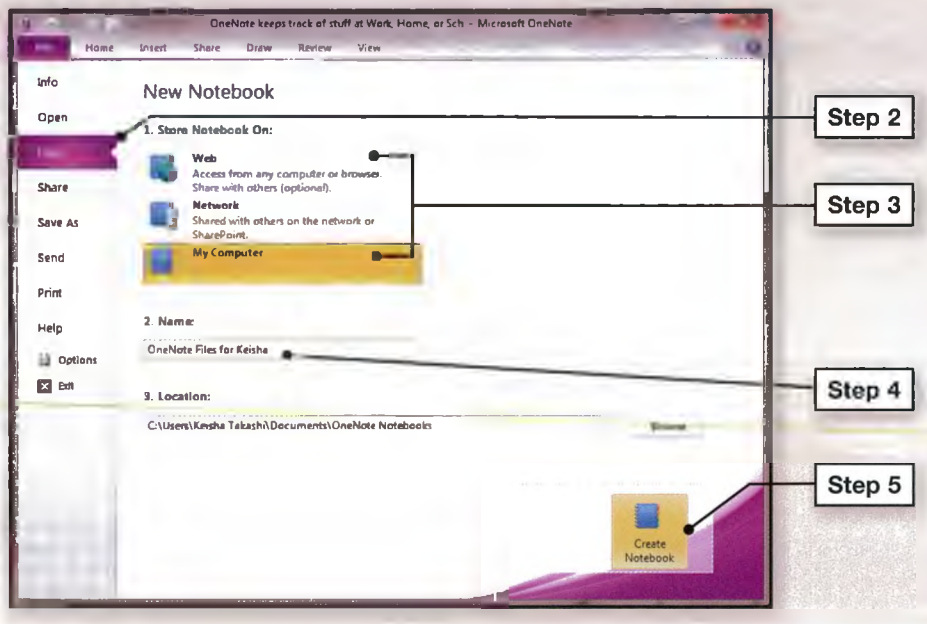


FIGURE 13-3
New Notebook

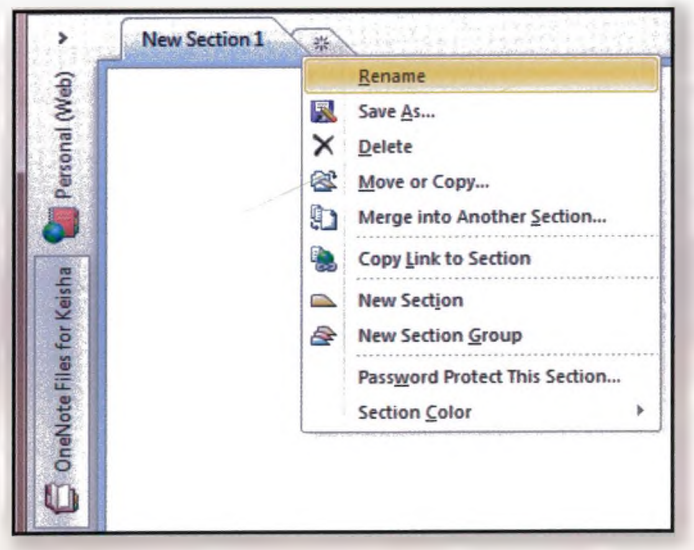


FIGURE 13-4 New Section 1 Tab

6. Right-click on the **New Section 1** tab, and choose **Rename** as seen in Figure 13-4.
7. Imagine you are taking notes in a Marketing class. You will want to name your first section *Marketing* so you know the main topic of the notes you are taking. Key **Marketing** to rename the New Section 1 tab. (See Figure 13-5.)
8. Click in the page title box, and key **Definitions** as marked in Figure 13-5. Notice that the text you key in the title box also appears simultaneously on the Page tab.

Big Tip

OneNote stores information in text boxes called *containers*. Create a container, and key your first notes.

9. Click in the note-taking area of the screen just below the *Definitions* title as seen in Figure 13-5. This will create a container. Key **THE FOUR P'S OF MARKETING** in that container.
10. Resize a container by hovering your mouse pointer over the corner of the move handle bar at the top of the container. When you see the double-sided arrow, click and push the container in and out as needed. (See Figure 13-6.)

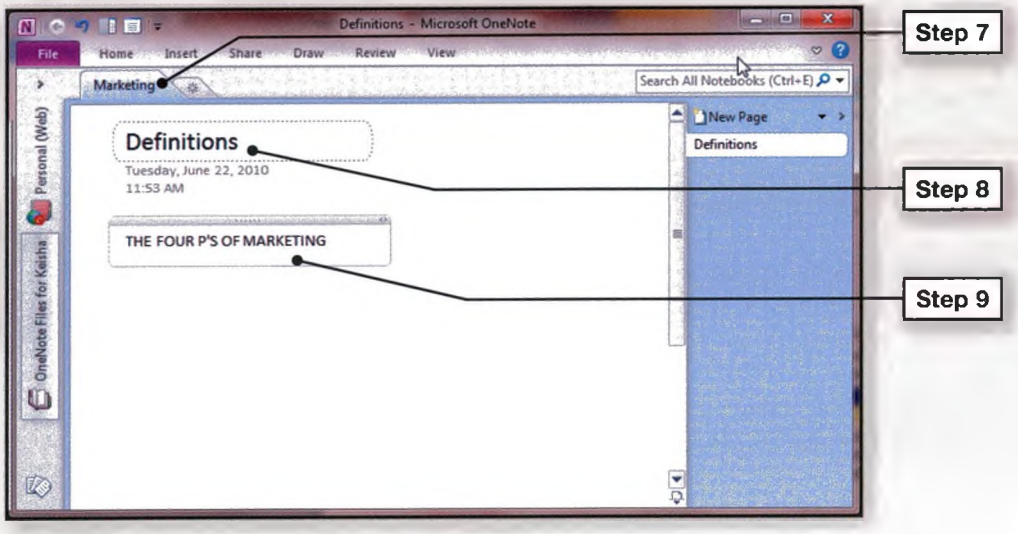


FIGURE 13-5 Renamed Tab and an Information Container

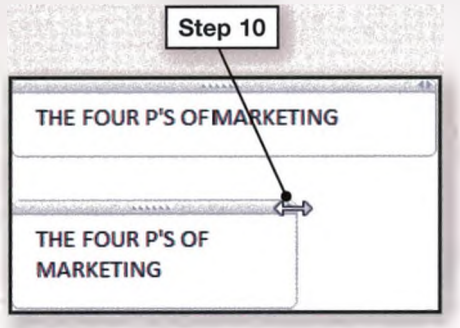


FIGURE 13-6 Container Resizing

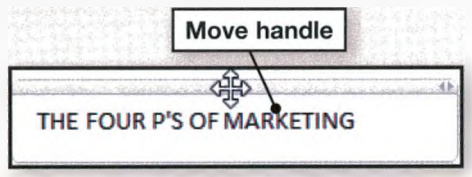


FIGURE 13-7 Container Moving

11. Hover over the center of the move handle. A four-sided arrow will appear as shown in Figure 13-7. Click and drag the container to the center of the note-taking area.
12. Use the move handle to move your container under the *Definitions* title.

DigiTip

You can create containers anywhere on a page. You can reorganize those notes later by sliding them around the note-taking area, as you will see in the next few steps.

13. Click or tap in the top-right corner of the note-taking area. Key **Product: Anything a customer can buy.**
14. Click or tap in the bottom-left corner of the note-taking area. Key **Price: What someone is willing to pay.**
15. Click or tap in the bottom-right corner of the note-taking area. Key **Place: The best place to sell a product.**
16. Click or tap in the center of the note-taking area. Key **Promotion: Efforts that create interest in a product.**
17. Click the container that holds the note *Product: Anything a customer can buy.* Drag the container by its move handle underneath the *THE FOUR P'S OF MARKETING* note, as marked by an arrow in Figure 13-8.

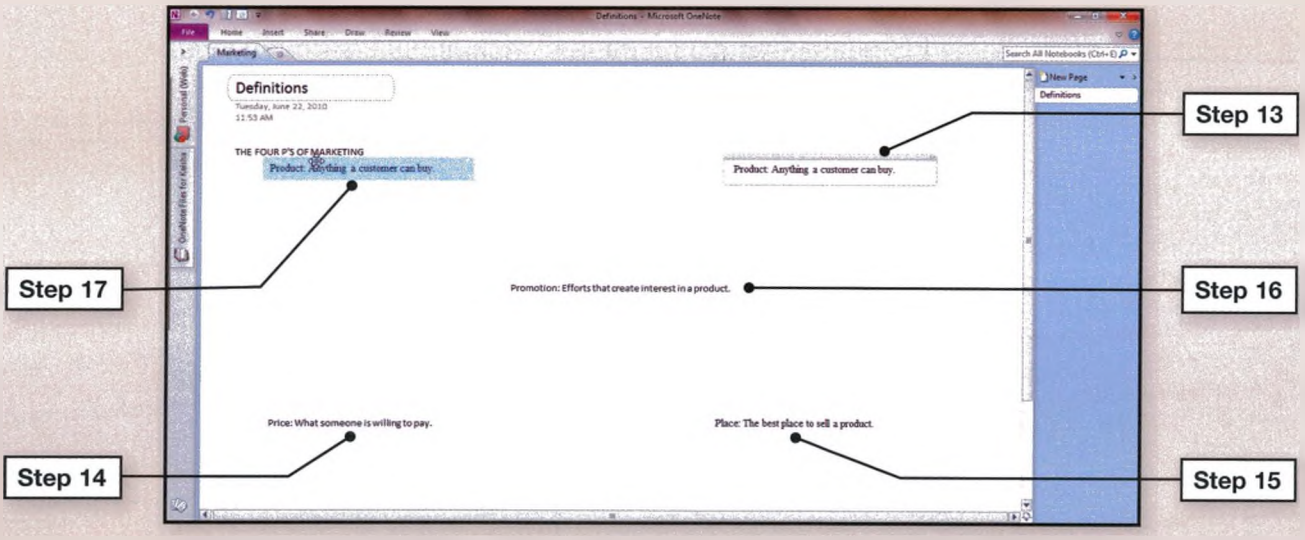


FIGURE 13-8 Arranging Multiple Containers

WebTip

There is no need to save with OneNote. Each time you create a container, OneNote saves automatically.

18. Continue dragging the remaining containers one by one under *THE FOUR P'S OF MARKETING* so that they appear in the following order:
    Price: What someone is willing to pay.
    Place: The best place to sell a product.
    Promotion: Efforts that create interest in a product.

(*Note:* As you drag, you can see the shadow of the container so you can track it easily. Containers will snap into position on an invisible grid so they line up properly.)

Activity 13-2 CREATE, DELETE, AND DISPLAY PAGES

1. Open OneNote if necessary.
2. To change the way the Navigation pane is displayed:
   a. Click the **Expand Navigation Bar** arrow (top left corner) to expand the navigation bar.

b. If necessary, click the **Marketing** section in the navigation bar to open the *Marketing* section that you created in Activity 13-1.
c. Click the **Collapse Navigation Bar** arrow again to collapse the navigation bar.

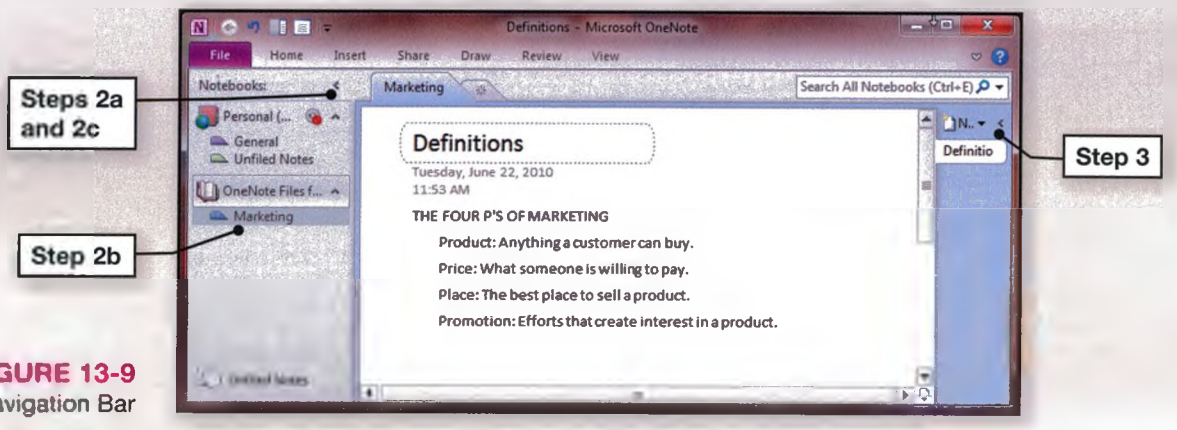


FIGURE 13-9
Navigation Bar



FIGURE 13-10 New Page

3. To change the way page tabs are displayed:
   a. Click the **Collapse Page Tabs** arrow to narrow the width of the Page navigation bar.
   b. Click the **Expand Page Tabs** arrow to expand the Page navigation bar.
4. Click the **New Page** down arrow shown in Figure 13-10. Choose **New Page** from the drop-down list. (Alternately, you could select the **New Page** button or press **Ctrl** + **N**.)
5. To name the page, key **Big Mistake** in the page title area on the new page, as seen in Figure 13-11.
6. Click the note-taking area, and create a new container called **An even bigger mistake**, as seen in Figure 13-11.

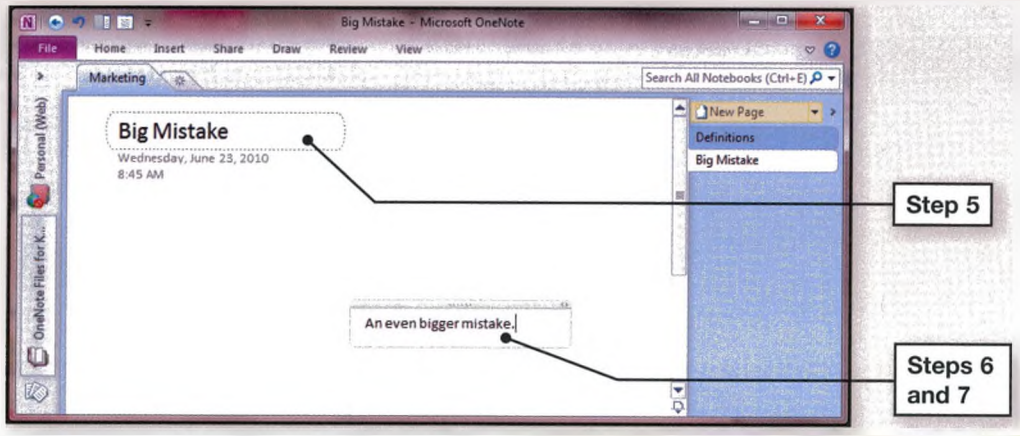


FIGURE 13-11
Working with Containers and Pages

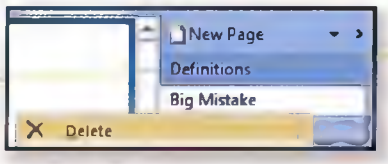


FIGURE 13-12
Deleting Unwanted Pages

7. To remove a container, right-click on the container with the text *An even bigger mistake* and click the **Delete** option from the list. The text will disappear. Then click somewhere else on the page, and the container will disappear.
8. To remove a page, right-click on the **Big Mistake** tab and pick **Delete** from the list as shown in Figure 13-12.

Activity 13-3 CREATE NEW PAGES FROM A TEMPLATE

1. Open OneNote if necessary.
2. Click the **New Page** down arrow, and choose **Page Templates** from the list as shown in Figure 13-13. This will open the Templates pane.
3. Open the **Academic** templates group by clicking the triangle marked in Figure 13-13.
4. Choose the **Simple Lecture Notes** template as marked in Figure 13-13. (If you wish to use a different template, modify it to fit the notes listed in step 5.)
5. Key the notes as seen in Figure 13-13:
   a. Name the page by keying **Eight Marketing Skills** in the page title container.
   b. Under the *Homework* section, key **Read pages 11-15** and **Quiz on Friday**.
   c. Key **Marketing managers** and **Eight marketing skills** under *Today's Topics*.
   d. Under *Most Important Facts Covered Today*, key the following:
   Marketing managers must identify customer needs and tailor their product planning, sales, and support efforts to meet those needs. Marketing managers direct the day-to-day details of the marketing, sales, and consumer support activities. They must master eight important skills.

Skill Tip

To add emphasis, create lists when you take notes. Use Numbered lists when a specific order is required. Use a Bulleted list when the order of items is not important.

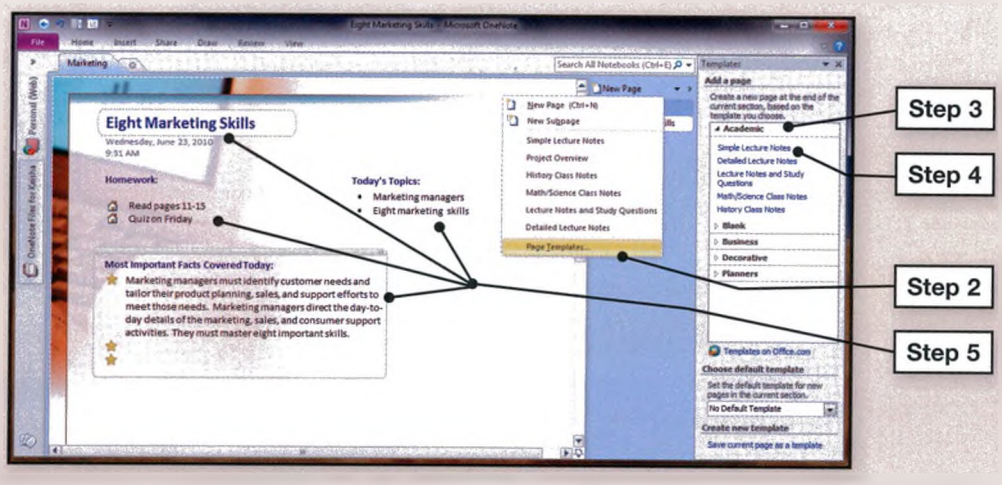


FIGURE 13-13
Academic Template

INSTANT MESSAGE

To delete tags in an existing template, right-click on the tag (i.e., the star) and choose **Remove Tag**.

6. Click to create a new container, and key this list of the Eight Marketing Skills as seen in Figure 13-14.
   Supporting
   Promoting
   Researching
   Planning
   Selling
   Pricing
   Distributing
   Developing
7. Select the entire list of Eight Marketing Skills as shown in Figure 13-14.
8. Pick the **Home** tab, and choose the **Numbering** bulleted list option to create a numbered list. (See Figure 13-14.)

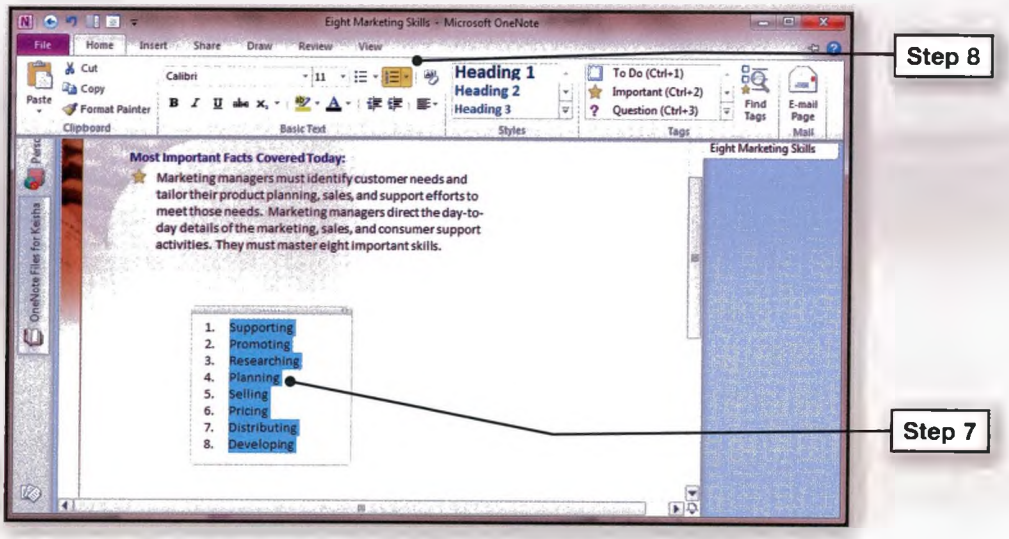


FIGURE 13-14
Numbered List

9. To change the order of the items in a list, hover over the first word in the numbered list. The paragraph/line move handle will appear to the left of the line. Click and drag it downward to make the word *Supporting* the last item in the list as modeled in Figure 13-15.

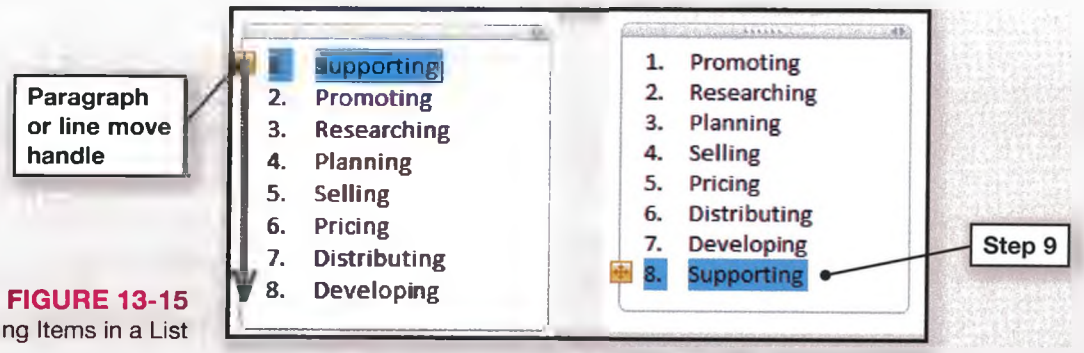


FIGURE 13-15
Dragging Items in a List

INSTANT MESSAGE

To delete an item in a container, right-click on the line or paragraph move handle and then select **Delete**.

10. Choose the remaining numbered items, and drag them up or down to place them in this order:

1. Researching
2. Planning
3. Developing
4. Pricing
5. Distributing
6. Promoting
7. Selling
8. Supporting

11. Change the name *Eight Marketing Skills* to **Marketing Lecture** by selecting and deleting the old name and keying the new name.

LESSON 13-2 Add Outlines, Change Fonts, and Add Color and Highlights to Notes

IN THIS LESSON YOU WILL:

Objectives

1. Add sections and note-taking pages.
2. Create a vertical outline.
3. Create a columnar outline.
4. Change colors, fonts, highlights, and font sizes.

Key Terms

columnar outline
highlight
vertical outline

USING OUTLINES AND DRAWING TOOLS FOR NOTE TAKING

In this exercise, you will create a new section for a different subject—a personal finance class. As you do, you will have a chance to use OneNote's outlining features. An outline organizes facts and details by main topics and subtopics. Outlining is an important note-taking skill.

OneNote allows both **vertical** and **columnar outlines**. A vertical outline (as shown in Figure 13-17) lists each concept underneath its main idea or heading. In the next activity, you will create a vertical outline. In a later activity, you will create a columnar outline like the one shown in Figure 13-22.

Activity 13-4 CREATE A VERTICAL OUTLINE

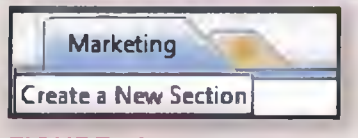


FIGURE 13-16 New Section

1. If necessary, start **OneNote**.
2. Choose the **Create a New Section** button marked in Figure 13-16.
3. The text *New Section 1* will be highlighted on the tab for the section. Key **Personal Finance** to rename the new section tab. (See Figure 13-17.)
4. Key **Definitions** in the page title box as shown in Figure 13-17.
5. Click the upper-left corner of the note-taking area to create a new container. Key the information shown below. (Also see Figure 13-17.)

Departments <Enter>
<Tab> **Payroll** <Enter>
Accounts Payable <Enter>
Accounts Receivable <Enter>
Purchasing <Enter>
<Enter>
<Enter>
<Backspace>

Financial Benefits		<Enter>
<Tab>	**401(k)**	<Enter>
	Flexible Spending Account	<Enter>
	Health Care	<Enter>
<Tab>	**COBRA**	<Enter>
<Backspace>		
	Paid Time Off	<Enter>
<Enter>		
<Backspace>		

When you see <Enter>, tap the **Enter** key. When you see <Tab>, tap the **Tab** key. And when you see <Backspace>, tap the **Backspace** key.

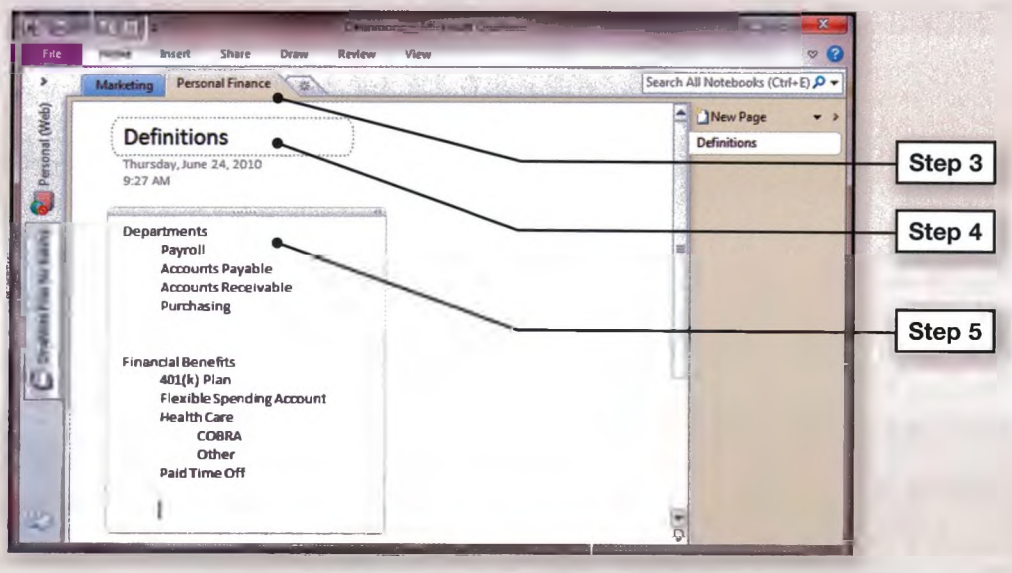


FIGURE 13-17
A Vertical Outline

ADDING SPACE AND DATA

Have you ever been taking notes and discovered that you left something out? Have you had a teacher circle back to an earlier topic and give you more information? When this happens, do you find yourself scribbling in margins, drawing arrows, and writing between the lines trying to fit in all the new information?

In those situations, it would be very useful if you could make more paper in the middle of your notes. While this is not possible with a regular notebook, OneNote lets you add space in the middle of a note, making it easy to insert missing information in just the right place.

Activity 13-5 INSERT SPACE AND ADD TO A NOTE



FIGURE 13-18 Insert Tab

1. Reopen OneNote and your *Personal Finance* section if necessary.
2. To add space in the middle of your notes:
   a. Click the **Insert** tab.
   b. Choose the **Insert Space** button as seen in Figure 13-18.
3. Click on the blank space between *Purchasing* and *Financial Benefits*. A blue line and an arrow will appear. (See Figure 13-19.)
4. Drag down about 2 inches to make room for additional notes. (See Figure 13-19.)

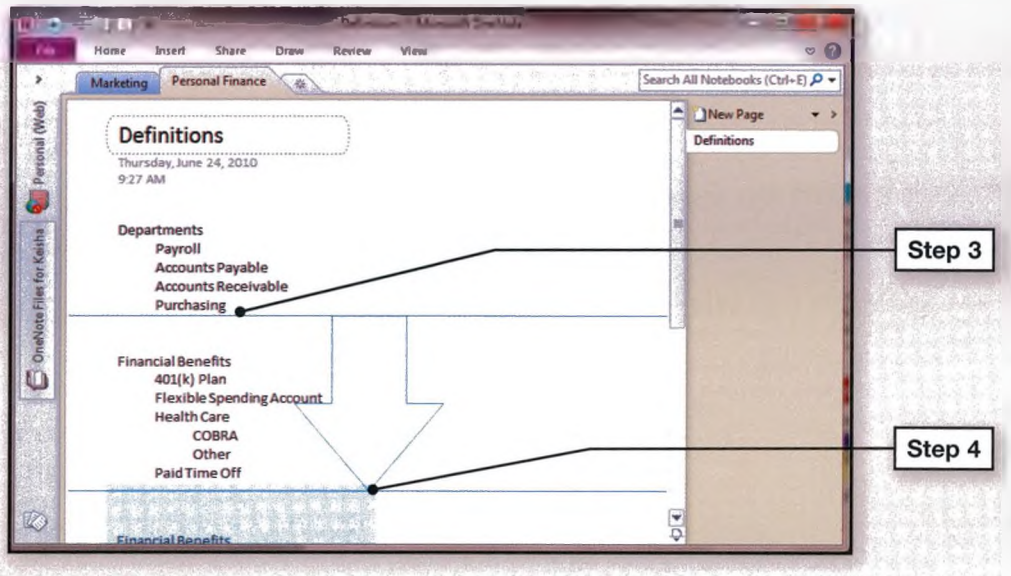


FIGURE 13-19
Add space between notes.

5. Key the following new notes in the space added between the two sections of the outline. (*Note:* When you have finished entering the text, adjust the text and containers as needed.)

Investments	<Enter>	
<Tab>	**Dividends**	<Enter>
	Liquid Assets	<Enter>
<Tab>	**Cash Flow**	<Enter>
	Interest Rates	<Enter>
<Backspace>		
	Retirement Plans	<Enter>
<Enter>		
<Backspace>		

Activity 13-6 CREATE A COLUMNAR OUTLINE FROM A BULLETED LIST

1. If necessary, reopen OneNote, click on the **Marketing** section, and pick your **Marketing Lecture** page.
2. Scroll down to the container with the numbered list of the eight marketing skills as seen in Figure 13-20.
3. Click directly after the word *Researching*. Tap the **Tab** key. This will create a tablelike horizontal note-taking cell like the one shown in Figure 13-20.
4. In the new cell, key the text shown below. Notice how the words wrap around in the column as you key the paragraph. (See Figure 13-20.)

   The study of marketing forces and economic trends and the analysis of the competition to identify markets for new products.

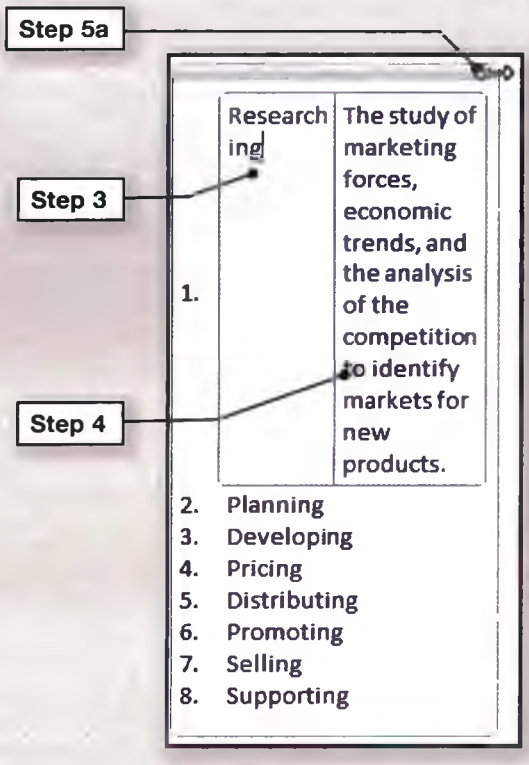


FIGURE 13-20 Columnar Outline

5. To expand the container and the table cells:
   a. Hover over the top-right corner of the move handle until the double-sided arrow appears.
   b. Click and drag the container out to the right.
   c. Drag the line in the middle of the table to the right to expand the first column if needed, as shown in Figure 13-21.

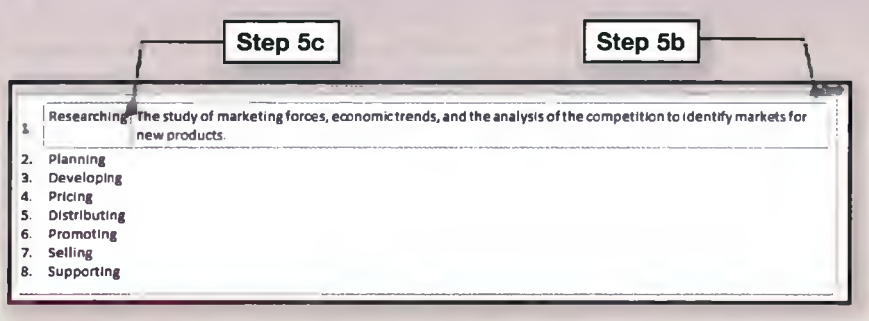


FIGURE 13-21 Adjusting Container Size

6. Follow the procedures in steps 3–5 to key the text shown below after the remaining items in the list of Eight Marketing Skills. When finished, your columnar outline will appear similar to Figure 13-22.

Planning	<Tab>	**The organization of the marketing process including marketing plans, budgets, and schedules.**
Developing	<Tab>	**Developing products, services, or solutions for the market.**
Pricing	<Tab>	**Determining competitive pricing on both the wholesale and retail levels.**
Distributing	<Tab>	**Bringing products to places where customers can conveniently buy them.**
Promoting	<Tab>	**Activities such as branding, advertising, and other efforts to build product awareness. Includes the positioning of products relative to the competition. Requires an understanding of the advertising media.**
Selling	<Tab>	**The process of making the sale or closing the deal with the customer.**
Supporting	<Tab>	**Maintaining customer satisfaction after the sale of a product.**

INSTANT MESSAGE

As the numbered list is changed into a columnar outline (table), the numbers will disappear and the remaining items in the list will be renumbered. When you are finished, you may need to delete leftover numbers. Right-click the number, and choose **Remove Number**.

Researching	The study of marketing forces, economic trends, and the analysis of the competition to identify markets for new products.
Planning	The organization of the marketing process including marketing plans, budgets, and schedules.
Developing	Developing products, services, or solutions for the market.
Pricing	Determining competitive pricing on both the wholesale and retail levels.
Distributing	Bringing products to places where customers can conveniently buy them.
Promoting	Activities such as branding, advertising, and other efforts to build product awareness. Includes the positioning of products relative to the competition. Requires an understanding of the advertising media.
Selling	The process of making the sale or closing the deal with the customer.
Supporting	Maintaining customer satisfaction after the sale of a product.

FIGURE 13-22 Numbered List Converted to Columnar Outline

CHANGING THE APPEARANCE OF PAGES

Changing the color of the text or the background is a great note-taking technique. Colors provide visual cues and associations that, believe it or not, will help you remember your notes. You may have noticed that each section you create appears in a different color. You can accept the default colors assigned, or you can manually pick your own colors.

Other tricks can also help. For example, you can add rule lines, use different colors for the text of your notes, and handwrite your notes instead of typing them. You may also want to change the text size and style used in your notes. At times, it will prove helpful to **highlight**—surround in color—key portions of your notes, just as you would do with a highlighter marker on a paper page. These techniques can increase your recall capacity.

Activity 13-7 COLORS, FONTS, HIGHLIGHTS, AND FONT SIZES IN NOTES

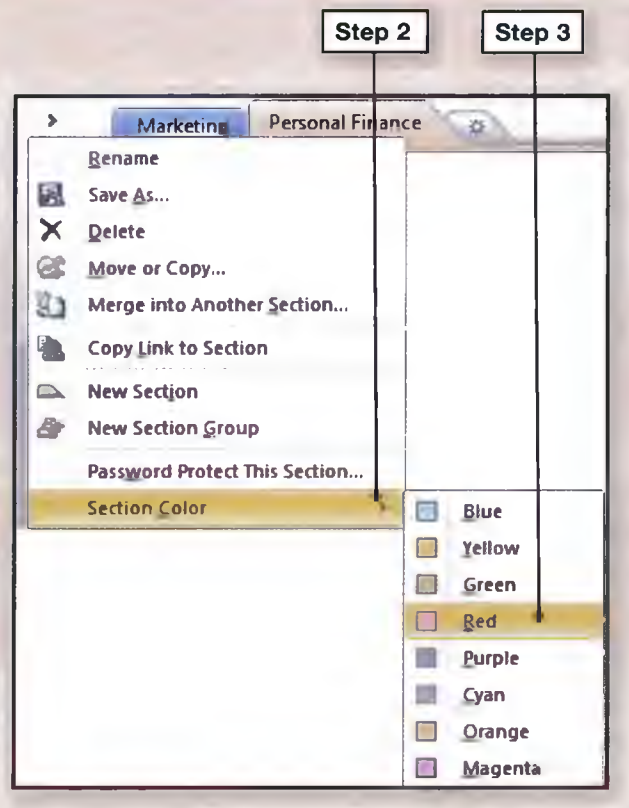


FIGURE 13-23 Changing Tab and Border Area Color

1. Reopen OneNote and your *Personal Finance* section if necessary.
2. Right-click the **Personal Finance** section tab to open the pop-up menu. Point to **Section Color**. (See Figure 13-23.)
3. Pick an alternative color from the list. (*Note:* The color you select changes not only the color of the tab, but also the border around your note-taking area.)
4. To add rule lines, click the **View** menu and pick **Rule Lines**. (*Note:* Lines will then appear on the page, just like a paper school notebook, as seen in Figure 13-24.)

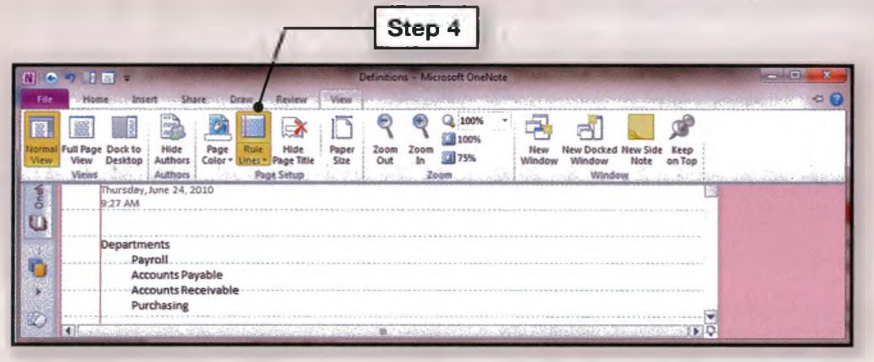


FIGURE 13-24 Adding Rule Lines

5. Select the word *Departments*, the first major heading in the outline. Click the **Home** tab, and pick the **Text Highlight Color** down arrow. A color palette will appear as displayed in Figure 13-25. From that color palette:
   - **a.** Choose **Yellow** from the palette to highlight the word *Documents*.
   - **b.** Repeat step 5 to apply the **Green** highlight color to the word *Investments*.
   - **c.** Repeat step 5 to apply the **Turquoise** highlight color to the words *Financial Benefits*.

6. Select the four lines under the heading *Departments*, beginning with *Payroll* down through *Purchasing*. Click the **Home** tab, and pick the **Font Color** down arrow. A color palette will appear. From that color palette:
   a. Choose **Blue** from the palette to change the color of the words below *Documents* as seen in Figure 13-25.
   b. Repeat step 6 to apply the **Green** text color to the words below *Investments*.
   c. Repeat step 6 to apply the **Red** text color to the words below *Financial Benefits*.

7. To change the font style of your notes:
   a. Select all of the text on the page. Note that each container appears selected.

> **DigiTip**
>
> To select all the text on a page, you can:
> - Click and drag over all of the text in all of the containers.
> - Select a container by clicking on its move handle and then select additional containers by **Ctrl** + clicking their move handles.
> - Press **Ctrl + A**.

   b. Click the down arrow on the **Font** button on the **Home** tab.
   c. Scroll through the various font choices, and select a font from the list. The new font will then be applied to your notes. (In Figure 13-25, we have applied the Arial font.)

8. To change the size of your font:
   a. Select all the lines on the page. Each container should be selected.
   b. Click the down arrow on the **Font Size** button on the **Home** tab as indicated in Figure 13-25.
   c. Scroll through the various font size options, and pick one. The new font size will appear in your notes. (In Figure 13-25, a 14-point font is applied.)

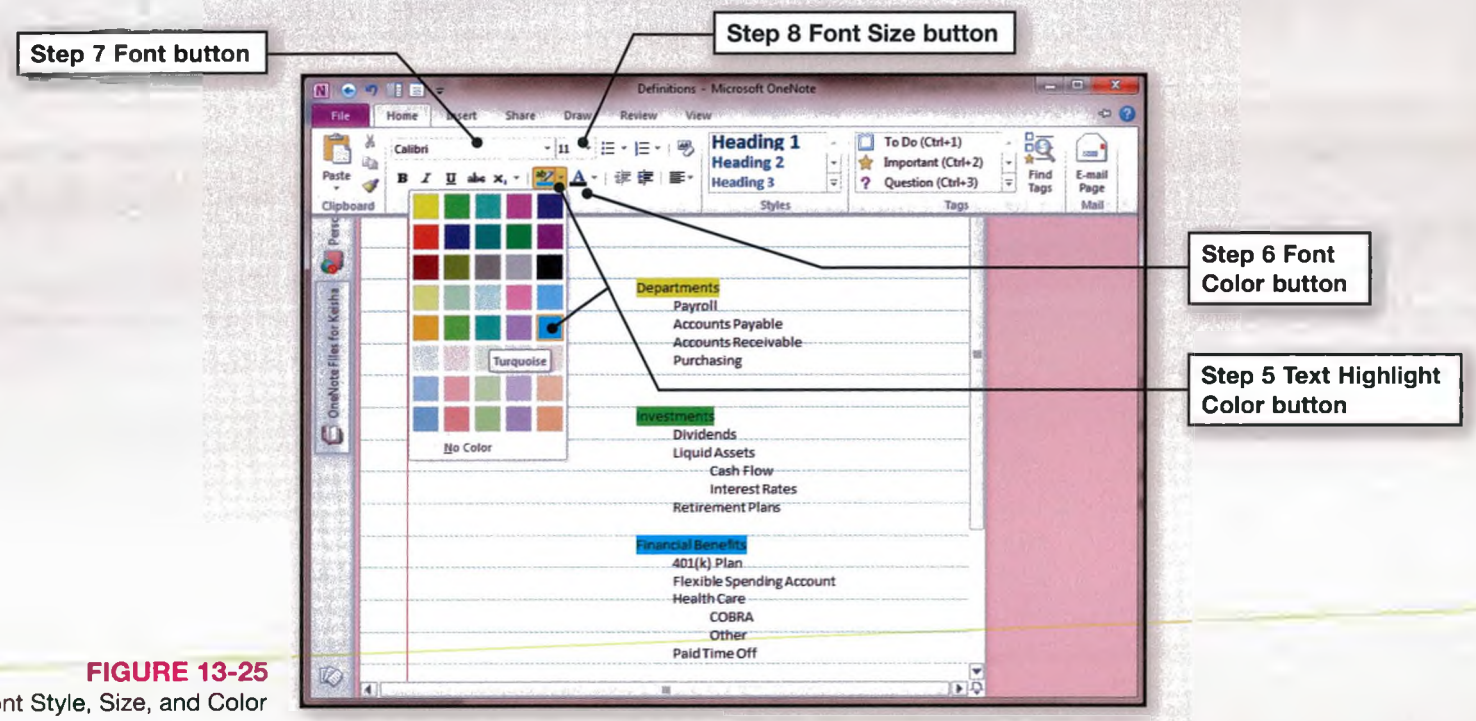


FIGURE 13-25
Font Style, Size, and Color

If not done carefully, changing colors and font styles can make notes harder to read! More traditional font attributes—such as bold, italic, and underline—are often better choices for emphasizing text. Buttons for these attributes are familiar to you and are found on the Home tab.

9. Open your *Marketing* section and the *Definitions* page.
10. Select the word *Product*. Click or tap the **Bold** button. Also apply bold to the words *Price*, *Place*, and *Promotion*.
11. Select the text *Anything a customer can buy*. Click the **Italic** button. Also apply italic to the other three definitions for the words.
12. Select the text *THE FOUR P'S OF MARKETING*. Click the **Underline** button to underline the words as seen in Figure 13-26.

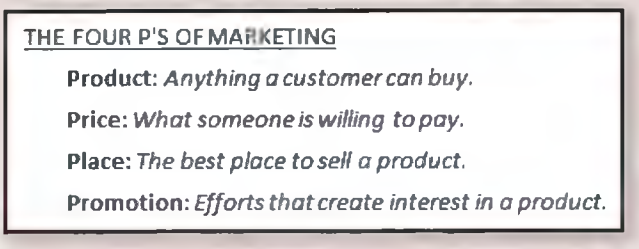


FIGURE 13-26
Italic, Bold, and Underline

LESSON 13-3 Capture Online Notes; Sketch, Handwrite, and Search Notes

IN THIS LESSON YOU WILL:

Objectives

1. Apply handwriting and drawing tools to your notes.
2. Create subpages for sketching and drawing.
3. Create a diagram.
4. Translate handwritten notes to text.
5. Copy notes and images from the Internet.
6. Search notes for information.

Key Term

subpages

HANDWRITTEN NOTES AND DRAWING TOOLS

INSTANT MESSAGE

To learn more about handwriting and drawing tools, refer to *Appendix B, Multi-Touch and Handwriting Recognition for Microsoft Windows 7 (and Windows Vista)*.

OneNote allows you to use digital ink to draw and sketch and to handwrite your notes. This is like using colored pencils to take notes on paper. It is effective as a note-taking tool, and it is fun. Sketches and drawings also help with recall.

In this lesson, you will update your notes using various colors of ink. If you are using a tablet PC, an iPad, or a smart phone, you are in your element. These new DigiTools are made for inking.

But desktop and laptop users need not feel left out. If you are using a traditional desktop or laptop PC, you can use a Wacom handwriting board for this exercise. If you do not have a Wacom board, use your mouse. However, using a mouse for digital ink can be awkward and is not recommended for heavy-duty drawing and doodling.

Activity 13-8 HANDWRITE NOTES

INSTANT MESSAGE

If you make a mistake, select the Eraser button. Then move the Eraser over the area you want to remove. Choose a pen to continue writing. You can also use the Undo button to remove a mistake, but it's more fun with the Eraser tool.

1. If necessary, reopen OneNote, your *Marketing* section, and your *Definitions* page.
2. Add rule lines to the page by clicking the **View** menu and picking **Rule Lines**.
3. Select the **Draw** tab to display the drawing tools.

You can use both cursive script and printed handwriting in OneNote. If you run out of "paper," click the Scroll Down by Half button. This will give you more writing room. Note that this button appears only when the scroll bars appear—when you have more text than what fits on the visible page.

4. Below the existing container, use cursive or printed writing to handwrite the following text:
   The Marketing Circle of Success
   1. **Bring customer-oriented products to market.**
   2. **Sell products to customers effectively.**
   3. **Support products after the sale.**

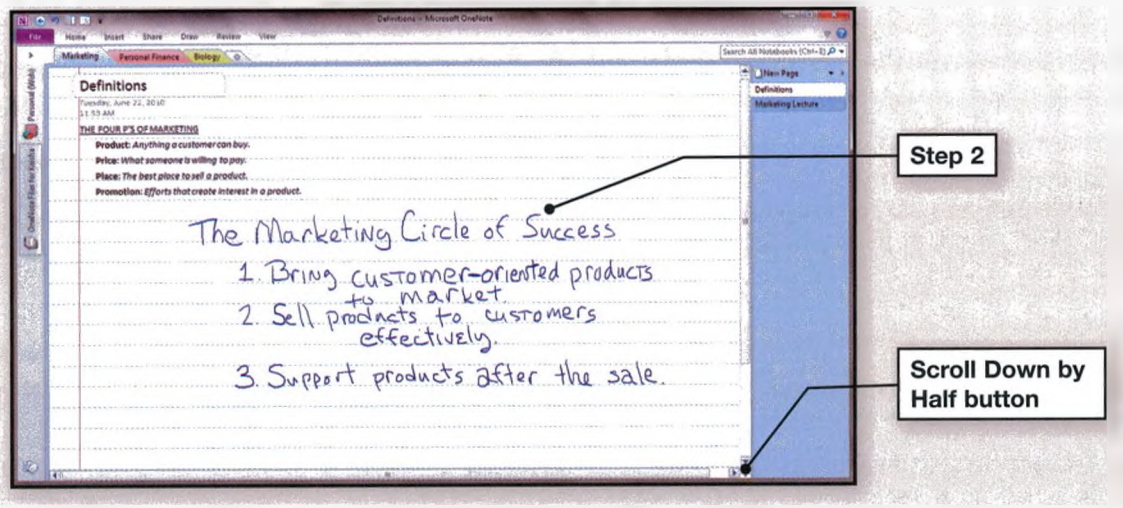


FIGURE 13-27
Handwritten Notes

CREATING SUBPAGES FOR DRAWINGS

Subpages are used to avoid creating endlessly long pages on a single topic. A subpage is added below another page. For example, the *Definitions* page in the *Marketing* section is getting a bit long. It may be better to add a subpage under the primary *Definitions* page. In the next activity, you will create a subpage to hold a drawing.

Activity 13-9 DRAW A DIAGRAM

1. If necessary, reopen OneNote, your *Marketing* section, and your *Definitions* page.
2. Select the **New Page** down arrow, and pick **New Subpage**. (See Figure 13-28.)



FIGURE 13-28 New Subpage

3. If necessary, remove the **Rule Lines** by picking **View** > **Rule Lines** and selecting the **None** option.
4. Write or key **The Marketing Circle of Success** in the page header title area. (See Figure 13-30.)
5. Select the **Draw** tab.
   a. Expand the draw options by clicking the **More** button for the *Tools* group. Use various pen widths, colors, and styles as you sketch and draw.
   b. Use the Select, Eraser, Lasso, and Panning Hand tools to select objects, to erase mistakes, and to move around the document.
   c. Remember to use the shape tools to help you with circles, lines, and ovals, as marked in Figure 13-29.

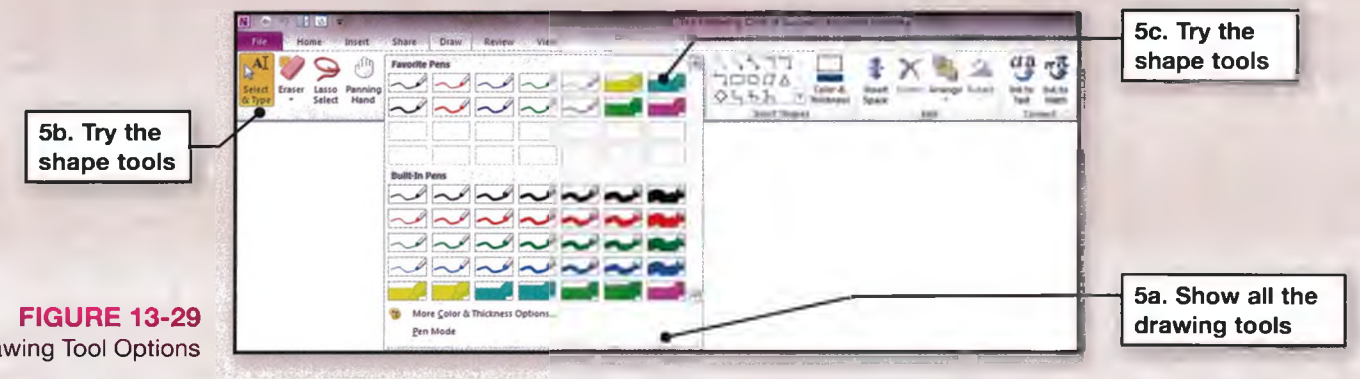


FIGURE 13-29
Drawing Tool Options

6. Draw a diagram similar to the one shown in Figure 13-30.

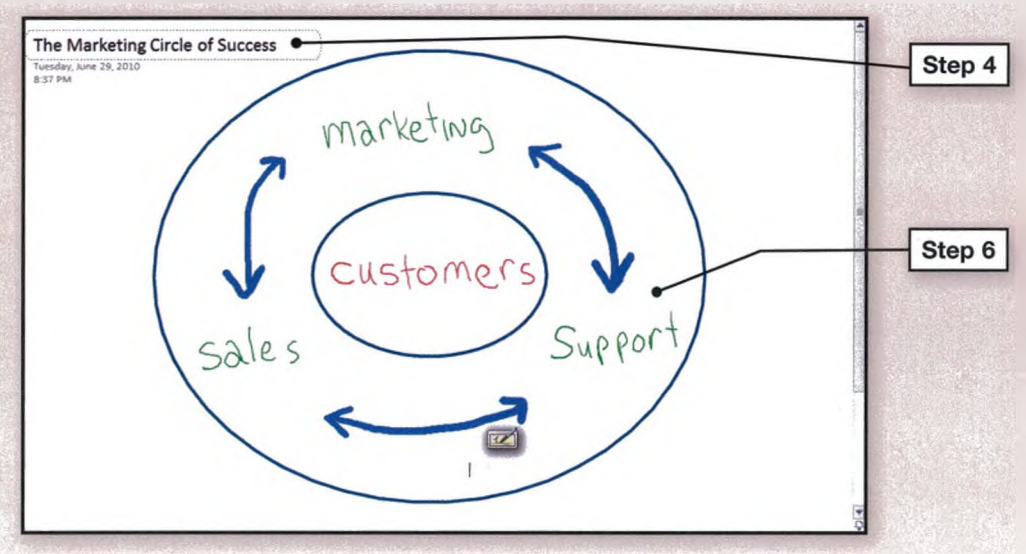


FIGURE 13-30
Creating a Drawing

TRANSLATE HANDWRITTEN NOTES

It is easy to turn your handwritten notes into keyed notes, as you will see in this next activity. Just remember to write clearly so the conversion process will translate your notes accurately.

Activity 13-10 TRANSLATE HANDWRITTEN NOTES

1. If necessary, reopen OneNote and your *Marketing* section. Switch to your *Definitions* page.
2. Select the **New Page** down arrow, and pick **New Subpage**.
3. Select the **Draw** tab, and pick your preferred color and pen width for the title.
4. Handwrite the title of the page: **Market**.
5. If necessary, add the Rule Lines to your page.
6. Select the **Draw** tab, and pick your preferred color and pen width if you want it to be different from the one used for the title.
7. Handwrite the following notes:
   Market. A market includes any group, large or small, that may purchase a product.
8. To convert the text, select the **Ink to Text** button from the Draw tab's Convert group as seen in Figure 13-31. All the words on the subpage will be converted to text.

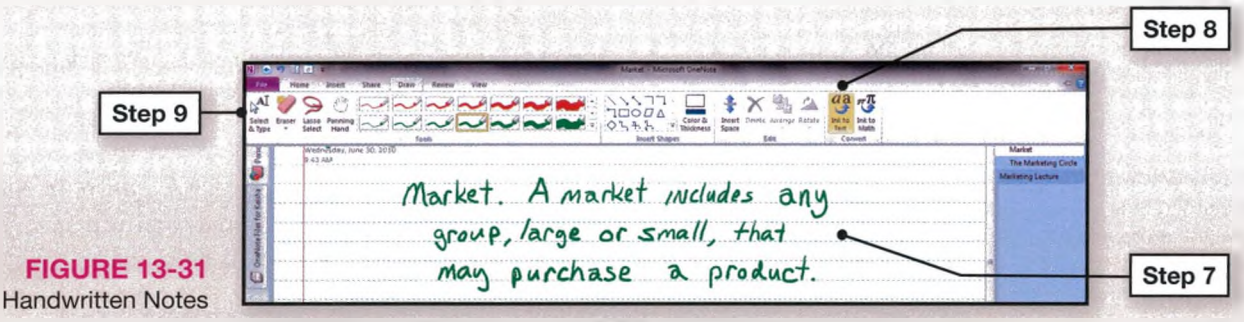


FIGURE 13-31
Handwritten Notes

9. Pick the **Select & Type** button from the Draw tab to return to keying mode.

DOWNLOADING FROM THE CLOUD TO ONENOTE

OneNote is made to work in the cloud. First, if you wish, your notes can be stored online. (See Activity 13-1.) Second, you can download pictures, graphics, charts, and data of all kinds from the Web. Simply drag selected items from a Web page to OneNote with the flick of a pen or mouse. Give this feature a try in the next sequence of steps.

Activity 13-11 DOWNLOAD TEXT AND GRAPHICS FROM THE NET

1. If necessary, reopen OneNote, your *Marketing* section, and your *Definitions* page.
2. Select the **New Page** down arrow, and pick **New Page**.
3. Name the page **Online Marketing**.
4. Snap the screen so that your OneNote window covers only half of the screen.

5. Open the Corporate View intranet from www.cengage.com/school/digitools. Click on the **Marketing, Sales, and Support** link to go to the Marketing, Sales, and Support page.

6. Snap your Web browser so that it covers the other half of the screen as seen in Figure 13-32.

7. Click and drag the Marketing graphic from your browser to your OneNote page as seen in Figure 13-32. (You may also right-click on the graphic, choose the Copy command, then switch to OneNote and use the Paste command.)

DigiTip

When you copy and paste anything from the Internet cloud to OneNote, the Web address from where the information was taken is automatically inserted at the bottom of your picture or graphics, in the same container. This feature is very helpful if you need to revisit the Internet site or prepare citations for a research paper. (See Figure 13-32.)

8. Select the title **About Marketing, Sales, and Customer Support** and the first two paragraphs of text under the title. Drag the selected text from your browser window to OneNote. (Notice how the text you are copying will appear as a shadow as you move it, as seen in Figure 13-32.)

9. Close your Web browser, and then Maximize your OneNote window.

10. Clean up your notes if necessary by moving containers and resizing them. Reposition the text and graphics as necessary.

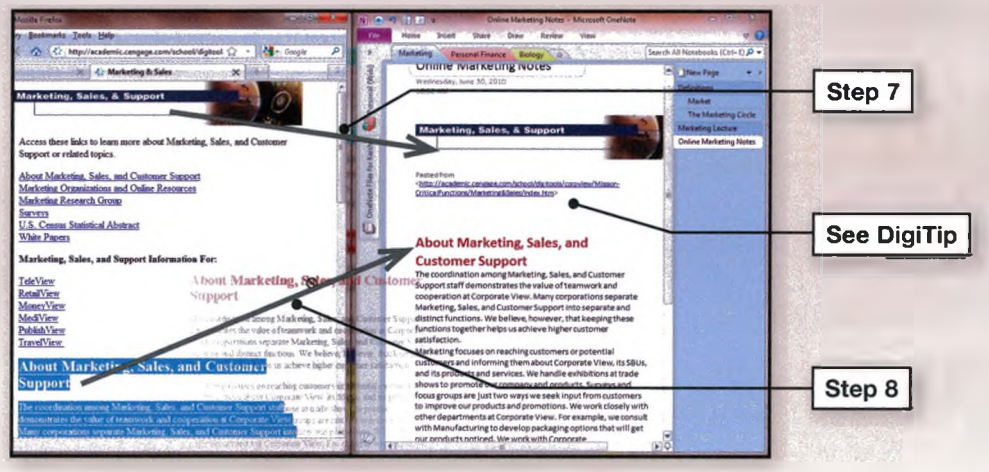


FIGURE 13-32
Notes from the Cloud

DRAW ON A PICTURE

Drawing on images can be very helpful as a study aid. For example, in the next activity, you will label the parts of a flower—something you may do in a biology class. Give it a try in the next few steps.

Activity 13-12 DRAW ON IMAGES IN YOUR NOTES

1. If necessary, reopen OneNote.
2. Create a new section called **Biology**.
3. Name the first page **Flowers**.
4. Choose the **Insert** tab followed by **Picture** from the *Images* group.
5. Browse to your ***Chapter 13*** data files, and open the image called ***labeltheflower.jpg***.
6. Using your drawing tools, label the flower as marked in Figure 13-1 on page 442. Name and label the **Petal**, **Stamen**, **Ovule**, **Sepal**, and **Receptacle**.

GOOGLE-LIKE SEARCH TOOLS

The third part of note taking is to search and retrieve the information you need. Finding what you want is the key to getting the most out of your notes. One of the ways is to use Google-type searches of your personal notes. Since some of your notes may be handwritten, OneNote converts your handwriting into text to analyze it for your search keywords. Let's see how it works!

Activity 13-13 SEARCH YOUR NOTES

1. If necessary, reopen OneNote and switch to your *Marketing* section. Open *The Marketing Circle of Success* page.
2. Key the word **Market** in the search box found in the top-right section of the page, and tap **Enter**.

DigiTip

Instances of the letters/word begin appearing in the search results area as you key it in the search box. The word *Market*, will be highlighted on the open page both in keyed text and in handwritten text. When you finish keying the word, notice that a list of all the pages that contain the word *Market* can be seen in the search results.

3. Click on any page in the search results list to move directly to those notes.



FIGURE 13-33
Search Results

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 13-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools.*

Building Up: Your Math Skills

Exercise 13-2 VOLUME DISCOUNTS ON SPORTS EQUIPMENT

Imagine that you are a wholesale sales representative for a major supplier of sports equipment. Your company sells to large national stores and small, locally run stores. You must calculate the discounts and final amounts your major customer accounts will pay for their orders.

Your company uses volume discounts to encourage customers to place large orders. One series of discounts applies to large store orders. Another series is used for small store orders. Details of the discounts and a partial list of customers are given below.

Large Store Orders	Discount Percentage	Small Store Orders	Discount Percentage
$2,000 or Less	0.0%	$200 or Less	0.0%
$2,001–$5,000	5.0%	$201–$500	2.5%
$5,001–$10,000	10.0%	$501–$750	5.0%
$10,001–$25,000	15.0%	$751–$1,000	7.5%
$25,000 and Above	20.0%	$1,001 and Above	10.0%

Large Store Customers	Small Store Customers
Big Sports Superstore	Al's Triathlon Shop
Great Sports Center	China Towne Sports
Super Sports	Zack's Sports

Calculate answers to the following questions.

1. Great Sports Center ordered $50,000 of sports equipment. What is the volume discount percentage for this order? What is the volume discount dollar amount for this order? What is the dollar amount of Great Sports Center's order after the volume discount?
2. Zack's Sports ordered $900 of equipment. What is the percentage amount of the volume discount you should apply to this order? What is the dollar amount of the volume discount you should apply to this order?

3. Super Sports sent a special order for basketball jerseys. The order included 16 LeBron James All-Star basketball jerseys at $14 apiece. What is the dollar amount of the Super Sports order after the volume discount has been applied?

4. Save your answers as ***Exercise 13-2*** in your ***Chapter 13*** solutions folder.

Building Up: Your Language Arts Skills

Exercise 13-3 FROM THE EDITOR'S DESK: CONFUSING USAGE

1. Open your browser software. Use the bookmark in your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications > From the Editor's Desk**.)

2. Choose the **Capitalization** link followed by the **North, South, East, West** link. Copy and paste the questions to a word processing document, and answer the questions. (Read the information provided on the Web page, and follow the directions for completing this practice exercise.)

3. Check your answers by comparing them with the answers on the bottom of the intranet page.

4. Save your work in your solutions folder as ***Exercise 13-3 Capitalization***.

Career Clusters



Marketing, Sales, and Customer Support

Products are the goods or services that are bought, sold, traded, and exchanged through stores or on ecommerce websites. The job of marketers, salespeople, and customer support teams is to promote, sell, and stand behind a company's products and services. Examine Table 13-1 for some of the careers in this fast-paced and exciting career cluster.

Position and Yearly Salary		Position and Yearly Salary	
Market Research Analyst	$58,230	Demonstrator and Product Promoter	$25,910
Wholesale and Retail Buyer	$44,200	Sales Representative (Wholesale)	$48,240
Advertising Manager	$64,950	Advertising Sales Agent	$45,700
Marketing Manager	$78,410	Securities and Financial Services Sales Agent	$73,430
Sales Manager	$77,000	Insurance Sales Agent	$48,560
Salesperson (Retail)	$20,920	Telemarketer	$21,840
Parts Salesperson	$25,940	Real Estate Broker	$65,410

TABLE 13-1
Career Cluster: Marketing, Sales, and Service

See marketing, sales, and customer support in action by visiting your neighborhood mall or by going online to an ecommerce site. The three mission-critical functions listed below work together to maximize customer satisfaction.

- Marketing teams excite customers about their products. They use advertising to convince customers that their products are better than the products of their competitors.
- Sales teams take products directly to customers and "close the deal"—in other words, make a sale and collect the cash!
- Customer support assists customers after the sale. If things go wrong, support must fix the product and make things right.

Exercise 13-4 ABOUT MARKET RESEARCH

1. Examine the role of a team of market researchers. Access the Corporate View intranet. Choose **Marketing, Sales, & Support** followed by **Marketing Research Group**.
2. Create a short, two-page summary report about the Marketing Research Group. Include the following:
   a. Use **Marketing Research Group** as the title of your report.
   b. Restate the mission of this group.
   c. Make a few notes about each team member. What is the most important thing that each team member brings to the task of market research?
   Asher, Jared: Marketing Research Assistant
   Cohen, Daniel: Assistant Director
   Jones, Casey: Director of Marketing
   Lopez, Samantha: Marketing Research Specialist
   Miller, Jeff: Marketing Research Specialist
   Takase, Kaoru: Marketing Research Assistant
3. Save your report as ***Exercise 13-4*** in your ***Chapter 13*** solutions folder.

Exercise 13-5 PLAN A MARKETING CAMPAIGN



Imagine that you and your team will be presenting your marketing ideas to the marketing research group for approval.

Your product is a successful European bottled water product called *Aucuabuenissimo*. The water takes its name from a small village in Italy. Your team has been hired to develop a marketing campaign to sell the bottled water in your community.

1. Research the competition. How do other companies market and sell their bottled water successfully in your community?
2. Plan how you can reach the most local customers. Would it be by TV, radio, Web ads, billboards, magazines, newspapers, direct mail, or other methods?
3. In your plan, come up with ideas that will:
   a. Convince people to abandon their favorite soft drink or bottled water and try *Aucuabuenissimo*.

b. Inform them that *Aucuabuenissimo* bottled water comes from wells that tap an aquifer near a small village in Italy called Aucuabuenissimo. The town is located at the base of the Alps. Many believe it to be the purest water in all of Europe.
c. The water is more refreshing and better for your health than diet soda.
d. Set the price for your 16- and 24-ounce bottles, and make a convincing argument for your price points (that is, the price you set for the products).

4. As a team, prepare an online multimedia presentation to present your plan to market *Aucuabuenissimo* in your community. Include slogan ideas; marketing, sales, and support plans; and your plans for making money on *Aucuabuenissimo* water sales.

5. Save a copy of your presentation as ***Exercise 13-5*** in your ***Chapter 13*** solutions folder.

21st-Century Skills

Critical Consumer Thinking

Exercise 13-6 AUTOCHECK THE CARFAX

Vehicles are one of the most important, and costly, purchases anyone makes. Buying a car requires a great deal of thought. It is key that you learn where you can go for customer information on car and truck buying.

Sites like CARFAX and AutoCheck give you information on cars, trucks, and SUVs. Before you plop down $10,000 for a used car, you should check out that car for any problems it may have had.

It costs money to fully use CARFAX and AutoCheck, but you can learn how these systems work without paying to look up a specific car. First, you need to know how to access the data from these online sites. To look up information about a specific car, you need a VIN number. What's a VIN number? Go find out in the cloud!

1. Do a Google or Bing definition search to learn what a VIN number is.
2. Key your definition in an online spreadsheet document named ***My Car Searches***.
3. Visit both www.carfax.com and www.autocheck.com.
4. Look up a car by its VIN number. Here is a sample VIN number: *2T1KR32E18C716335*
5. What can you learn about this car for free? Answer the following questions about it, recording the answers in your spreadsheet:
   - Who makes this car?
   - What year was it made?
   - What model is this vehicle?
   - What, if any, other information can you learn about this car for free without buying a full report?
6. Find a VIN number for a family car or a car at a used car lot, and look it up.
7. Answer the same questions listed in step 5 about this car.

Exercise 13-7 TARGET MARKETING FOR CAR SALES

For many, buying a car online is a bit scary. Many still want to kick the tires and look the car over before buying. Even local car dealers will market cars online in order to attract customers to the car lot. Yet sometimes prices online are much better than prices on the car lot.

For example, one buyer looked up a car online and found an advertised price of $27,900. At the lot, she was quoted $28,590. She quoted the online price on the same car and instantly got the reduced price. However, this was just the beginning of the negotiation. She bought the car for less than $25,000; so remember to negotiate! Naturally, she researched the car on CARFAX and AutoCheck. With the cloud on your side, you can get the best car deal possible.

1. Open your online ***My Car Searches*** file, and create a new sheet.
2. Can you buy a car online? Do a Google search with these keywords: **buy a car**.
3. How many advertised sites appear?
4. Look for a specific car. Enter these search terms: **buy a Chevy Volt**.
   - What type of energy source is used by the Volt?
   - How much does a Volt cost?
   - What options are available for the Volt?
   - Where can you go to buy a Volt?
5. Research another make, model, and year for a used car. Search the same car on three different online sites. In your spreadsheet, compare the following:
   - Price of the three cars
   - Miles driven
   - Color
   - General condition
   - Current location of the car
   - Other factors
6. Pick the best of the three cars you have found. Which one would you buy? Why?
7. Resave your online ***My Car Searches*** spreadsheet.

Chapter 14

Online Teamworking Skills

Lesson 14-1 Starting Up a Corporate Communications System in the Cloud

Lesson 14-2 Create a Business Plan as a Team

Lesson 14-3 Preparing for Your Team's Presentation

SET UP A STARTUP

Every day people form teams and create small businesses. A small business is an independent company. By definition, small businesses have between 1 and 500 employees. When people start a new business, they often call their company a *startup.*

Many are wary of starting a new business. What puts them off is the real chance of failure. In business, you cannot be afraid of failure. Most successful small business owners reported several failed attempts before they learned the ingredients of success. And an amazing number of startups succeed! According to the U.S. Department of Commerce, seven out of ten small businesses last at least two years and about half are still going strong in five years. Some small businesses even explode into major corporations worth billions.

- Google started with a small team in a garage in Menlo Park, California.
- Microsoft began in Albuquerque, New Mexico, with less than a dozen employees.
- Facebook was started by four roommates in their dorm rooms at Harvard University.

IF THEY CAN DO IT, SO CAN YOU

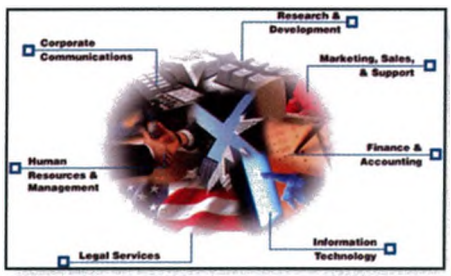


FIGURE 14-1 Each function is essential to success.

The founders of Microsoft, Google, and Facebook were young when they began their startups. If they can do it, so can you. In this chapter, you and your team will simulate what it might be like to start a small business. Your team members will become your business partners. Together, you will develop and present a business plan to a possible investor.

To begin, look at the big picture: every business, large or small, has a set of mission-critical functions that you must consider. (See Figure 14-1.) These functions work together to create a company. If just one of these functions is missing, the business will collapse. As you work through this chapter, you will learn more about how these functions work together for corporate success.

LESSON 14-1 Starting Up a Corporate Communications System in the Cloud

IN THIS LESSON YOU WILL:

Objectives

1. Explore Google apps and Microsoft apps for corporate communications.
2. Brainstorm possible business ideas.
3. Set up an IT communications intranet for your team. You will share the following:
   - A startup website
   - A startup calendar
   - A startup e-mail/messaging/telephony system
   - Word processing, spreadsheet, and presentation apps in the cloud
4. Learn how to share Google or Microsoft documents.

Key Terms

intranet
real time
singledocumindedness
venture capitalist (VC)

WHAT YOUR TEAM IS ABOUT TO DO

To complete the activities in this chapter, you will divide up into partnership teams. As a team, you will work through the process of organizing a business startup. The first thing you will need is investors with money to fund your company.

A **venture capitalist (VC)** is a businessperson with money to risk on new, promising companies. But a VC does not just give the money to anyone who asks. He or she needs to be convinced that the company has a solid plan for success. To get the money for your startup, you will make a presentation to a VC. To prepare for your presentation, you and your team need to make:

1. A business plan (which must be available online as well as in print).
2. A slideshow presentation (which must also be available online).
3. A product website (which, obviously, will be available online).

This lesson and the ones that follow will help you work through the steps of getting a startup company organized and ready to do business and, at the same time, prepare to present your startup to potential investors.

START UP YOUR COMMUNICATIONS



FIGURE 14-2 Corporate View
Corporate Communications

Looking at all the functions in Figure 14-1, it may be difficult to know where to begin. Actually, this decision is easy. For the partners at a startup, there is nothing more important than great communication. Establishing corporate communications ensures that all of your partners are working together for a common goal. Fortunately, there are apps to make business communication easy to set up, and the nice part is it does not have to cost anything to get started.

In Activity 14-1, you will divide up into partnership teams. Your team members will become your business partners. In the remaining activities in this lesson, you must investigate and set up a corporate communications system that will meet your online needs.

Activity 14-1 GETTING TO KNOW YOUR PARTNERS

DigiTip

Your instructor may assign your teams. Teams of two, three, or four members will work just fine.

1. Meet your business partners. Who is on your team?
2. Introduce yourself to your team members. Have each member talk a bit about himself or herself and any business experience he or she may have.
3. Assess your team assets by asking these questions:
   a. Does everyone have an e-mail account, cell phone access, and messaging services?
   b. How many have created websites already? Who has a Facebook, Twitter, Buzz, or iGoogle page? Who uses other online communications media sites?
   c. Does everyone know how to use shared word processing, spreadsheet, presentation tools, and other business apps online?
   d. Do any of your members know how to set up a team calendar to coordinate online meetings and events?
4. As a team, read through the remaining information in this lesson. Complete the exercises together. Venture to come up with your own innovative solutions to the problems presented.

IT COMMUNICATIONS APPS: MICROSOFT OR GOOGLE?

Every startup must set up a basic **intranet** to facilitate effective communication between members of the partnership team. This takes a basic understanding of modern IT, or information technology. An intranet provides a set of communication tools that partners can share.

The IT or information technology department is responsible for setting up the communications system of a company. These communications systems are often called **intranets**. An intranet is a communications system for just the employees of a business. IT intranets are moving to the cloud. The cloud lets partners communicate from anywhere on the planet. Both Google and Microsoft have solutions for online business communications, as shown in Table 14-1.



FIGURE 14-3 Corporate View Information Technology

Make no mistake: These two corporate titans are battling for user loyalty—including your loyalty. Both systems are powerful and will work well to support your business plan writing; business plan presentations; and, ultimately, your business. Clearly, you and your business partners have a decision to make between Google, Microsoft, and other possible apps.

Mission-Critical Function	Google	Microsoft
E-mail/Messaging/Telephony	Gmail Google Talk Google Chat Android Phones	Outlook or Hotmail Windows Live Messenger Windows Phones
Word Processing, Spreadsheet, Presentation, and Drawing apps	Google Docs in the cloud	Microsoft Office in the cloud
Web Page creation	Google Sites	Microsoft Expression
Calendar	Google Calendar	Microsoft Outlook Calendar
Cloud Sharing and Document Storage	Full Support through iGoogle and Google Docs	Windows Live SkyDrive

TABLE 14-1
Google and Microsoft Online Solutions

In the next set of activities, you will investigate the Google cloud applications. Later in this lesson, you will investigate what Microsoft has to offer.

INVESTIGATE GOOGLE APPS IN THE CLOUD

Google has created a system of business applications that give startups the communications apps they need. As of 2010, over 2 million businesses were using the apps that are located in the Google cloud. (See Figure 14-4.) There are at least three major advantages to using Google Apps for Business:

- *Cost:* There is no cost for a basic set of apps and a very small fee per employee for more storage and greater power requested by larger corporations.
- *Sharing:* Convenient sharing is easy and gives worldwide access to all business documents and business communications.
- *Singledocumindedness:* Google's single-document approach (**singledocumindedness**) allows several users to be working on the same document at the same time, displaying everyone's changes simultaneously.

If you have an iGoogle account, you have access to all of these business apps in the cloud. This means you can practice with them for free. If you don't know how to use iGoogle, repeat Chapter 12, Lesson 12-1 starting on page 413.

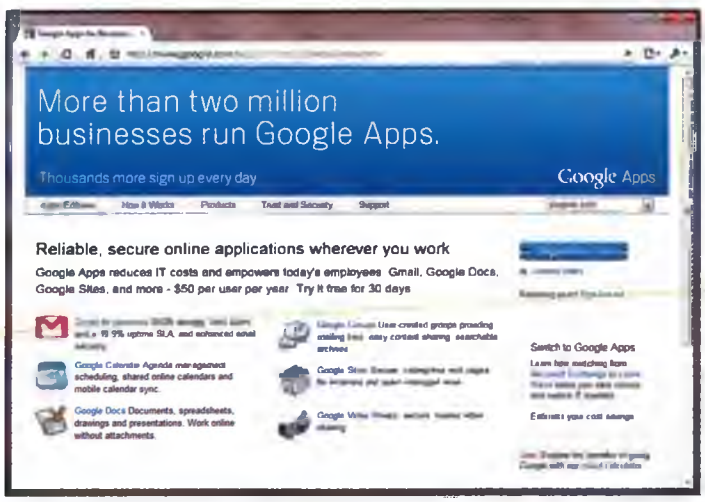


FIGURE 14-4
Google App for Business

Activity 14-2 CREATE AND SHARE A GOOGLE DOCUMENT

1. Pick a team leader for this activity. As a team, preview Google Apps for your startup business planning. A nice place to start your investigation is at iGoogle. Repeat Chapter 12, Lesson 12-1 if you all do not have an iGoogle account, and set up iGoogle for each team member before continuing.
2. With all the team members watching, have the team leader go to Google.com, open iGoogle, and sign in.
3. As a team, scan the options near the top to see the apps available to you (for example, Images and Videos). Have the team leader click the **More** button to display even more business apps that are available for your team to use.
4. Open the Google Docs app by clicking **Documents** as marked in Figure 14-5.



FIGURE 14-5
Opening Google Documents

5. From the Google Docs home page, click **Create new** as seen in Figure 14-6. Notice the apps that are available:
   - *Document*: An online word processing app
   - *Presentation*: A presentation (slideshow) app
   - *Spreadsheet*: A spreadsheet app
   - *Form*: A form creation app
   - *Drawing*: A drawing and sketching app

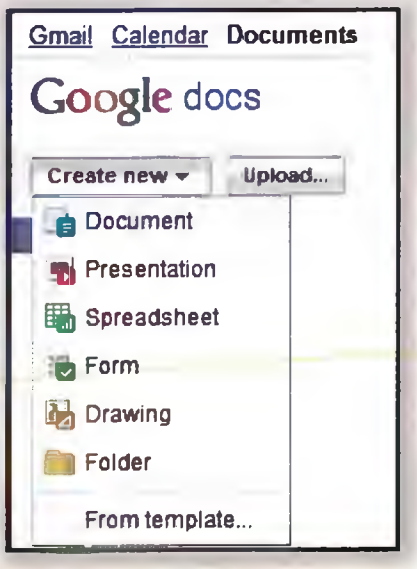


FIGURE 14-6
Opening a New Document

INSTANT MESSAGE

Minutes are notes taken of a meeting. Minutes are required for all partnership meetings. The decision makers for a company are called the Board of Directors. They, too, are required by law to keep minutes of all their official meetings.

6. Open a new document by clicking **Document**, as shown in Figure 14-6.
7. Key the information shown below. Make the text bold, and center the word *Minutes*. Your document should look similar to Figure 14-7.

Minutes

Date:
Present:
Product Ideas:

8. Name the file **Minutes [today's date]**. This can be accomplished by clicking in the *Untitled document* text box (next to the Google docs heading) or by choosing **File** > **Rename**. Either option opens the Rename Document dialog box in which you key the new document name. Click **OK** when you are finished.
9. Share the file with all of your team members by clicking **Share** followed by **Sharing settings** as shown in Figure 14-7.

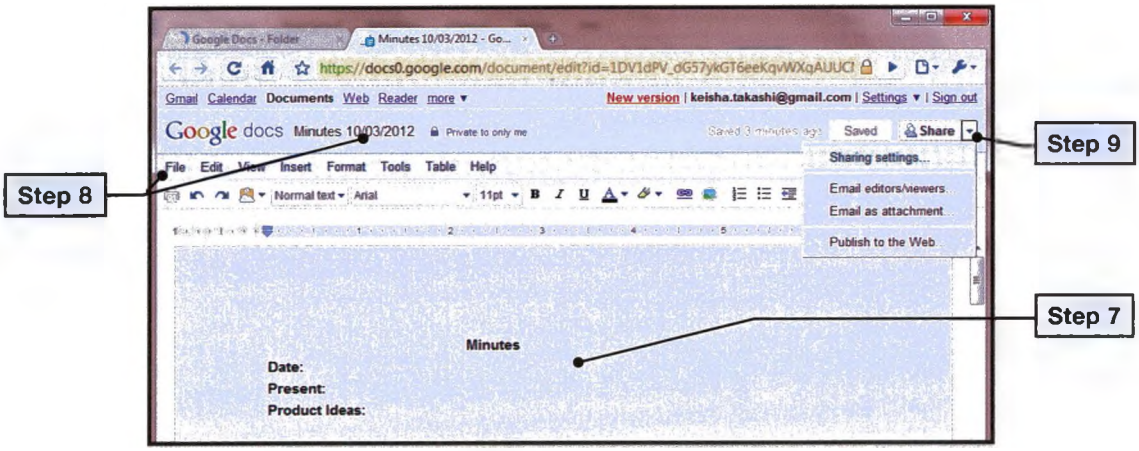


FIGURE 14-7 A Shared Document

10. In a dialog box similar to Figure 14-8, key the e-mail addresses of each team member and business partner, placing a comma between each address. If you have any of the desired addresses saved in your Contacts directory, you can click **Choose from contacts** to save time keying each address.
11. Click in the *Optional: Include a personal message* text box, and write a short note that will be sent in an e-mail to each person on the list.
12. To ensure that each team member has the ability to edit the document, click the **Can edit** button and choose **Can edit**.
13. Send e-mail notifications to each member by selecting **Send email notifications (recommended)**.
14. Click **Share**. An e-mail with a link to the shared document will be sent to each person in your list.

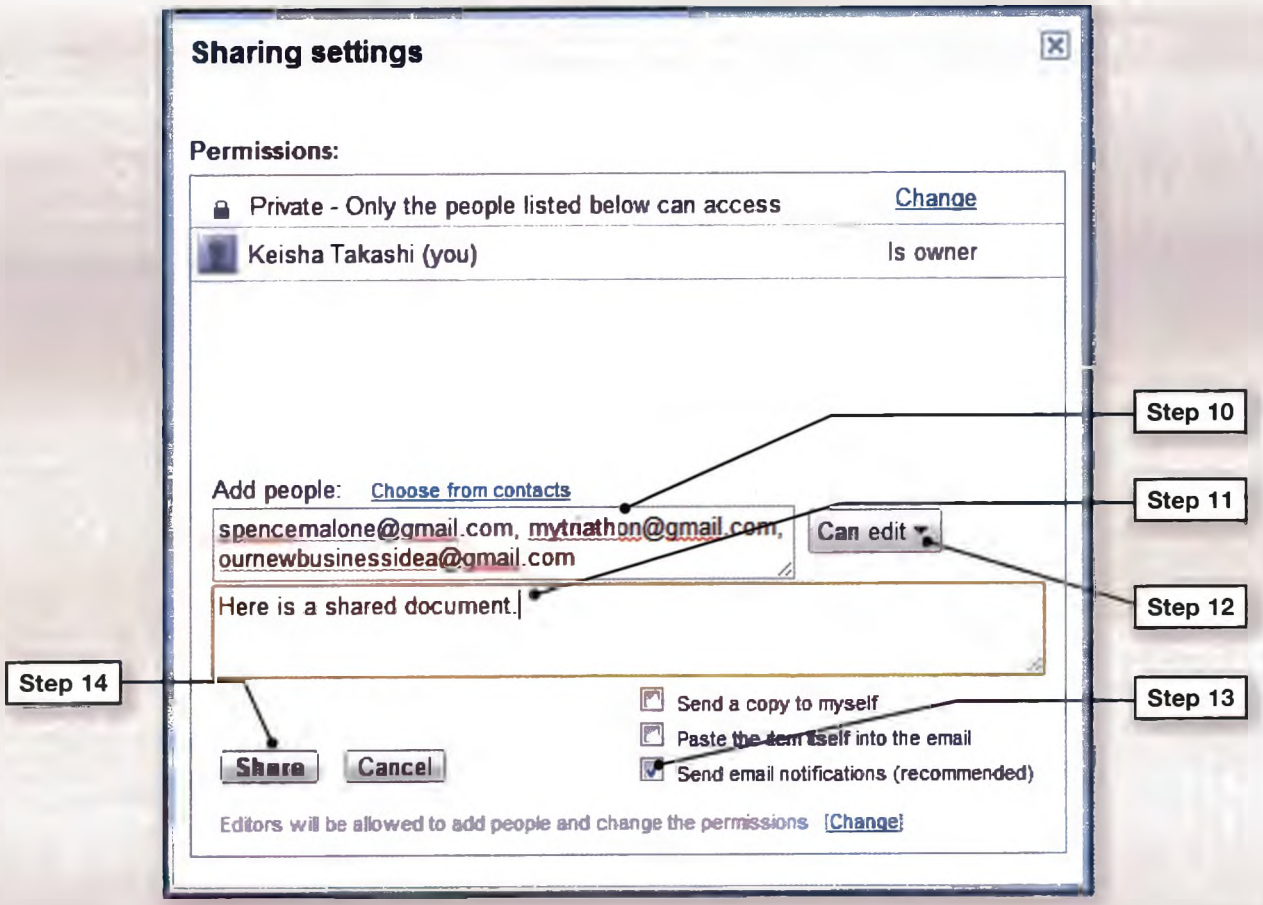


FIGURE 14-8 A Shared Document

15. When the sharing process is complete, click **Close** in the Sharing settings dialog box. If possible, leave the document open on the team leader's computer.

EDITING A SINGLE GOOGLE DOC IN THE CLOUD

Because you have shared the document, multiple team members can now read and edit information in the same Google Doc in **real time** no matter where they are in the world. Real time means that changes are posted at the same rate they are made. For example, in Figure 14-9, Keisha and Spence have opened the same document on different computers and are even using different browsers (Google Chrome and Mozilla Firefox). Spence is keying his name. As soon as he keys a letter, the change appears on Keisha's computer, too.

Keisha can see that Spence is making changes by a tag that appears, as seen in Figure 14-9. In Activity 14-3, all the team members, working on separate computers, will edit the same document at the same time. Give real-time editing a try!

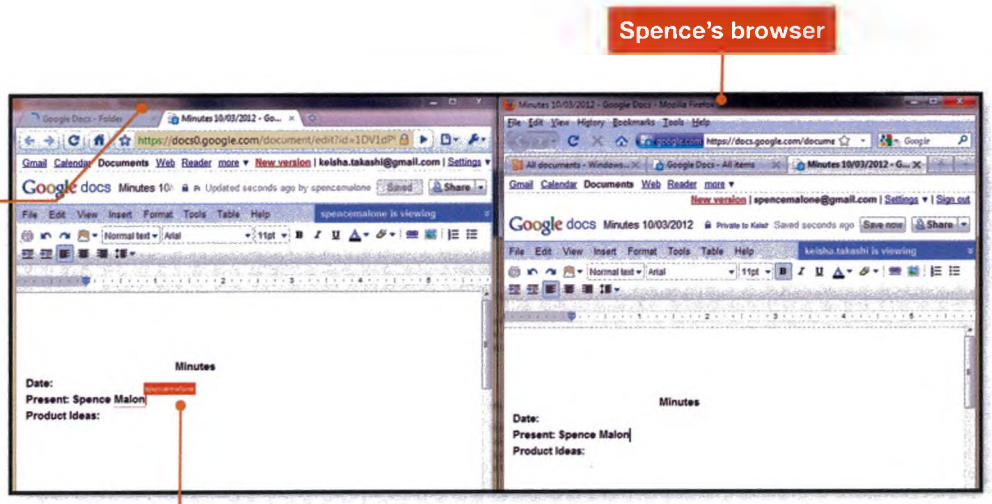


FIGURE 14-9
Multiple team members can edit the same Google Doc at the same time.

Activity 14-3 WORKING ON A SINGLE DOCUMENT IN THE CLOUD

Digital Tip

Google Apps pioneered the singledocumindedness approach where a single document can be edited by many people simultaneously. There is an advantage to this. Instead of various versions being saved and each person trying to figure out all the changes later, Google puts all the changes in one document. Everyone can see the most recent changes. (*Note:* You must complete Activity 14-2 before continuing with this activity.)

1. Have each team member go to his or her computer and sign in to his or her iGoogle account. (*Note:* The Sign In name used must be the same as the e-mail address the team leader keyed in Activity 14-2.)

2. There are two ways to open the Google Doc:
   a. Open the Google Docs apps by clicking **Documents** (repeating steps 3 and 4 of Activity 14-2) as shown in Figure 14-5. The document should appear in the All items Docs home file list. Click on ***Minutes [date]*** in the file list to open the document.
   b. Open Gmail. Open the message that came from the team leader, and click on the link for the ***Minutes [date]*** document.

3. Wait until each team member has the same Google Doc (Minutes [date]) open. You can tell who else is working on a document by examining the list of those "viewing" available in the upperright corner of the document. Edit the document from separate computers *at the same time*. Say **Start**, and without waiting for others to key their data:
   a. Have the team leader key in today's date.
   b. Have each team member record his or her name in the *Present* list.

c. Have each team member change just the color of his or her name to a different color.
d. Have each member brainstorm and key in three possible business products, services, or events in the section called *Product Ideas*.
e. Have each team member change the font color of the product ideas he or she has suggested to the color matching his or her name. (See step 3c.)

DigiTip

Google Docs are saved automatically and frequently. When new content is keyed into a document, the button in the upper-right corner of the Google Docs page shows "Save now." If you want to save the changes you just made, click this button. However, if you watch the text on the button for a moment, you will see it change to "Saving" as the document is being saved and then to "Saved" when the saving operation is complete. There is also text alongside the button to tell you how long ago the document was saved.

4. If necessary, click the **Save now** button and then close the document.

INVESTIGATE MICROSOFT'S APPS IN THE CLOUD

INSTANT MESSAGE

If you do not have Windows 7 or Office 2010 and you don't want to use Windows Live and SkyDrive, you can upload and save your Microsoft Office documents in Google Docs. Courtesy of Google, this gives you a free way to back up your key documents in the cloud.

Microsoft saw what Google Apps was doing in the cloud and responded with Web versions of its own products. With Windows 7 and Office 2010, you can use space in the Microsoft cloud. There are scaled-down versions of Microsoft Word, PowerPoint, Excel and other Office Apps online. Instead of using Gmail, you can use Hotmail (www.hotmail.com) for e-mail communication, Windows Live Messenger for chatting and instant messaging, and a space called SkyDrive to save files. There are some advantages to Microsoft's cloud system:

- *Wide use in business:* Microsoft Office is the most widely used group of apps in business worldwide.
- *Features:* Office applications are some of the most powerful, full-featured applications ever created for business.
- *PC synchronization:* Your desktop applications (like Word on your PC) will synchronize with your online documents (and match the information found in your online Word document).

Activity 14-4 CREATE AND SHARE A MICROSOFT WORD DOCUMENT IN THE CLOUD

1. Pick a team leader for this activity. With all the team members watching, have the team leader go to www.live.com or login.live.com.
2. Log in to Windows Live:
   a. If you do not have a Microsoft Windows Live account, choose **Sign up for an account**. Follow the steps to create your account. (See Figure 14-10.)
   b. If you already have a Windows Live account, key your e-mail address and password and sign in. (See Figure 14-10.)

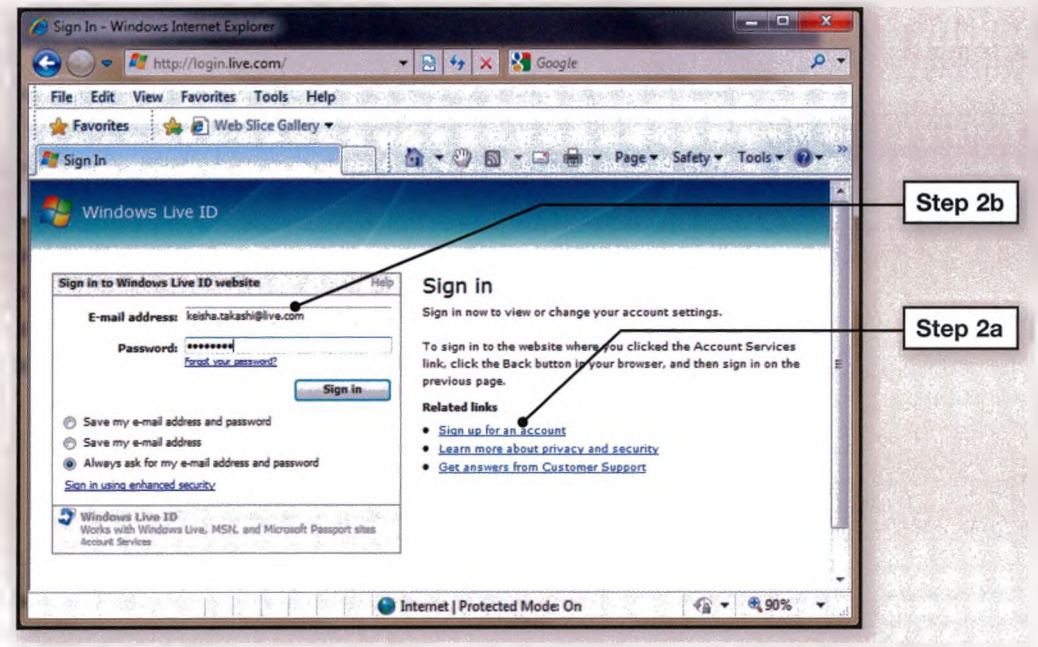


FIGURE 14-10
Windows Live Sign In

3. Review some of the special services available to Live users by reading the screen information and instructions.

4. Click on the Messenger option to add contacts and friends. Add team members to your Live network by clicking **Add friends**, as shown in Figure 14-11. (*Note:* From Windows Messenger, you can also add additional people later if you wish.)

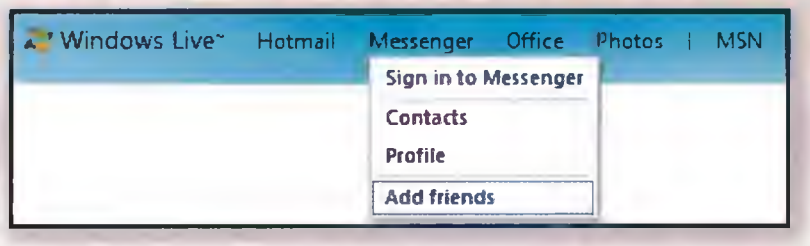


FIGURE 14-11
Windows Live Home Page



When you add people for the first time, you may be asked to set some basic security settings. Since this is for your startup company, you may want to limit access to just your team members, as seen in Figure 14-12. The Limited option will let you decide who does and does not have access to the files.

5. As you work through Windows Live's features, you may be asked to set your privacy settings. This is important. Unless you have a reason to do otherwise, choose the **Limited** choice option and then **Save**.

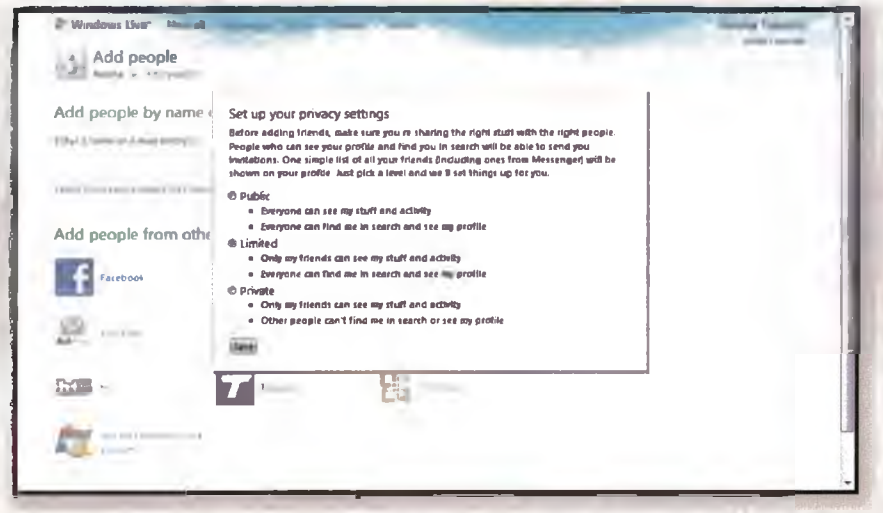


FIGURE 14-12
Security Level Settings

6. Add your team members to your limited user list by clicking **Add people** for each new member. Key the e-mail address of each team member.
7. Write each team partner a short e-mail message.
8. Click **Invite** to extend the invitation to each member. (See Figure 14-13.)

INSTANT MESSAGE

You can use streamlined online versions of Word, Excel, PowerPoint, and OneNote. Start with an online Word document to hold your minutes.

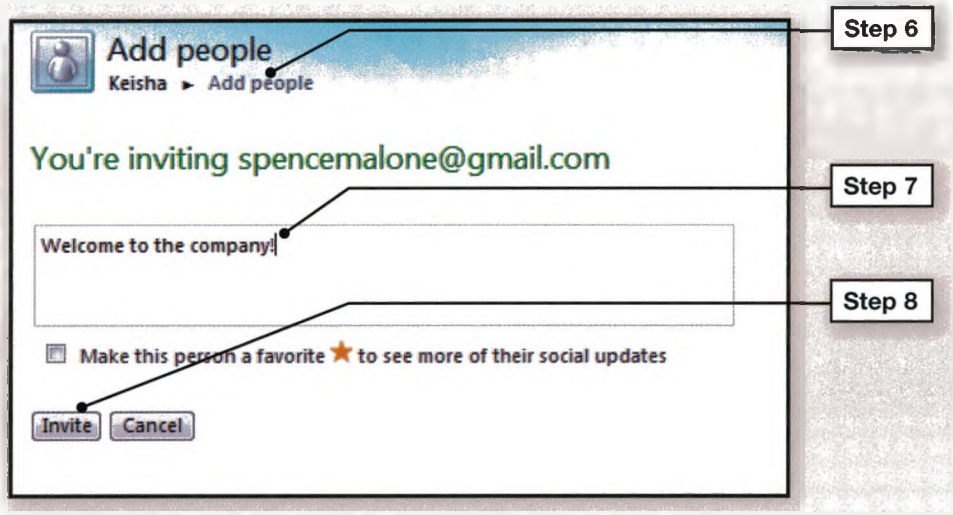


FIGURE 14-13
Adding People to Shared List

9. To access online versions of Microsoft Office apps, click the Office link and pick the **New Word document** option. (See Figure 14-14.)

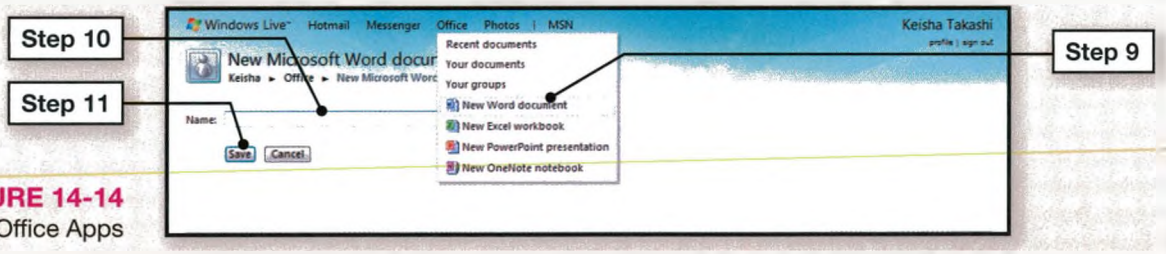


FIGURE 14-14
Online Versions of Office Apps

10. In the Name text box, key **Minutes [today's date]** to name the document.
11. Click **Save**. An online Word document will open.

INSTANT MESSAGE

Business minutes are legal documents. They are required by law when partners and board members meet.

12. Key the outline for the minutes of your first startup partnership meeting, as shown below. Make the text bold, and center the word *Minutes*. Your document should look similar to Figure 14-15.

Minutes

Date:
Present:
Product Ideas:

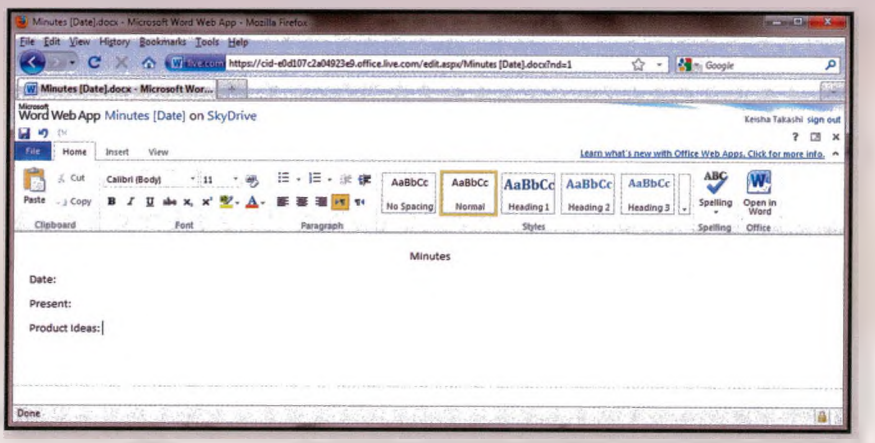


FIGURE 14-15
A Document in Word Web App

13. Have each team member go to his or her computer, create, and sign in to his or her Windows Live account. (*Note:* The sign-in name used must be the same as the e-mail address the team leader keyed in step 6.)
14. Have each team member open the ***Minutes[date]*** file online.
15. Edit the document from separate computers at the same time. Say **Start**, and without waiting for others to key their data:
    a. Have the team leader key today's date.
    b. Have each team member key his or her name in the *Present* line.
    c. Have each team member change just the color of his or her name to a different color.
    d. Have each member brainstorm and key three possible business ideas (products, services, or events) in the section called *Product Ideas*.
    e. Have each team member change the font color of the product ideas he or she has suggested to the color matching his or her name. (See step 15c.)
16. Have each team member save the changes he or she makes to the Word ***Minutes [date]*** file.
17. Close the document.

MAKE A TEAM DECISION ON YOUR IT COMMUNICATIONS INTRANET

Meet with your team to design your communications intranet. Do you want to use Microsoft's or Google's online solutions for this project or a combination of both? Do you have other tools you can use, such as OpenOffice or Facebook? As you make your decision, remember the tasks you will be completing in Lessons 14-2 and 14-3. You will:

- Create a team Corporate Communications system to help you finish your project.
- Create an online team calendar to organize your team's work.

- Create a written business plan for your team's business. (A copy of the business plan must be posted online.)
- Create a mock-up website of your product, event, or service idea. (Your team site must be posted online.)
- Create a group presentation to present your business plan and website to a VC investor. (The team presentation must be posted online.)
- Make a presentation to a potential investor.

Activity 14-5 DESIGN YOUR IT AND COMMUNICATIONS SYSTEM AND SET UP A CALENDAR

1. Meet with your team.
2. Review your experience with the online apps, and consider what your team will need to accomplish. As a team, decide which tools you are going to use to get your project completed.
3. Find out from your instructor the deadline for this project. When will you need to have everything finished and make your presentation to a VC?
4. Create an online calendar to plan how and when you will get this work done. Make sure the calendar is shared so everyone knows his or her responsibilities.

LESSON 14-2 Create a Business Plan as a Team

IN THIS LESSON YOU WILL:

Objectives

1. Write a business plan as a team.
2. Create a company name.
3. Describe your management team.
4. Explain your product idea and your research behind it.
5. Demonstrate your marketing, sales, and support plans.
6. Project your finances, possible profits, and expenses.
7. Study the legal requirements to establish a business in your state or county.

Key Terms

business plan
capital
gross profit
incorporation
investors
legal entity
Limited Liability Company (LLC)
management
net profit
partnership
personnel
product
proprietorship

BRAINSTORM A PRODUCT, A SERVICE, OR AN EVENT

Businesses create products, provide services, or sponsor events. They make profits by selling these products or services. When you brainstorm the kind of product, service, or event you want to create, you are at the start of the Research and Development (R&D) phase of your business. R&D must design products, discover how they can be built or organized, and learn whether the products will be effective and safe.

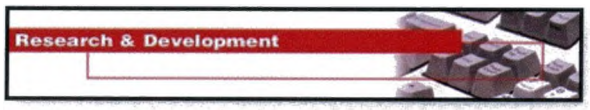


FIGURE 14-16 Corporate View Research & Development

Using the new online communications tools explored in Lesson 14-1, hold an online meeting and brainstorm possible products (which can include services or events). What profitable product could you and your team create for your startup business? Here are some examples:

Event: Keisha thinks her company could host a triathlon event.

Service: Melissa would like to create a financial accounting services business to help smaller companies with their problematic payroll tasks.

Product: Spence would like to create a competitor to the iPod called the Zeek.

Activity 14-6 BRAINSTORM YOUR BUSINESS

INSTANT MESSAGE

Anything that can be sold or charged for is called a **product**. Marketers often refer to events and services (like a concert or a cleaning service) as their "products." They may talk about a music concert as a "music product" and a cleaning service as a "home cleaning product."

1. Brainstorm, debate, and decide on an event, a service, or a product for your startup business. To throw a twist into this activity, hold a virtual meeting. Sit separately and use messaging, online docs, or Web cams to hold your meeting. Before the meeting, have your team leader create an agenda and deliver it to each partner online. Key tasks in the agenda include the following:
   - Brainstorm a product, an event, or a service for the company. (See step 4.)
   - Select a product, an event, or a service for the company. (See step 5.)
   - Create a calendar (see step 6) to plan the development of a:
     - Business Plan (Activities 14-7, 14-8, and 14-9).
     - Product website (Lesson 14-3).
     - Presentation for a VC investor (Lesson 14-3).
2. Meet your business partners either online or face-to-face.
3. Open your Google Doc online or an online copy of Microsoft Word, and have a member of the team take minutes of the meeting.
4. Spend approximately 20 minutes brainstorming business ideas around which you can build a startup business. Ask:
   - What product do you want to create?
   - What service do you want to offer to your customers?
   - What event do you want to organize?

DigiTip

Profit potential is a factor for startup, businesses, especially when they are looking to get capital backing (in other words, money) from a VC investor. However, there are other factors, like value to society. For example, companies working on technologies to create renewable energies or new medical breakthroughs are in high demand today.

5. Debate your ideas, and then make a decision on your startup's product, service, or event. Eliminate options and narrow your ideas to a single choice. Ask:
   - What is the profit potential of this product?
   - What is the value of this product, event, or service to people or to society?
   - Is it possible to create a successful company around this idea?

6. Open your team's shared calendar, and schedule your team's work. Start by keying the deadline for your presentation to the venture capitalist. (Your instructor will give you the deadline.) Plan backwards from that date to determine when you need to get your work done. Think through the following questions and plan accordingly:
   a. When will you develop your business plan by breaking down the major components of the project?
   b. Who will create your team's product website? When will that task be completed?
   c. Who will create your team's presentation? When will that task be completed?
   d. Who will polish and publish your business plan both online and in print form? When will that task be completed?
   e. When will your team practice and polish your presentation?
   f. Which team members will make your team's final presentation?
7. Get to work, and complete the project! Good luck.

DIGITAL SNAPSHOT

Writing Great Business Plans, Preparing Great Websites, and Presenting Your Plans



Review the *Eight Keys of Dynamic Digital Communication*. Remember these key concepts as you write your team's business plan, develop the website, and make your presentation:

- **Message & Purpose:** What products are you going to present, and why are you convinced your product makes good business sense? Remember, the purpose of the business plan, website, and presentation is to convince an investor to fund the business idea. You must state your case well to get the financial backing.
- **Audience & Impact:** Who are you creating your presentation for? (A VC investor.) What do you anticipate he or she will do with the information? (Decide whether to fund your business.)
- **Boundaries & Guidelines:** Analyze any boundaries (instructions, restrictions, limitations, and guidelines) that will affect your business plan, website, and presentation, such as word or page count, the medium to be used, and the deadline.
  - Business plans, websites, and presentations must be complete, but they do not need to be long.
  - Make sure each part of the project is as concise as possible but still sells your ideas.
  - Remember that all your written documents must be shared online with links from your website.
- **Research, Take Notes, & Plan**: Research your message, topics, subtopics, and details while collecting references for citations. As you research, take notes, brainstorm, and record your ideas and creative thoughts. For instance, brainstorm and plan your website and presentation. You can even create a storyboard to guide your work.
- **Create from General to Specific:** Grab the attention of your audience by a creating a general overview at the beginning and providing more specific information toward the middle and end of your presentation, website, and business plan.
  - Start with your company name and the names of your team members.
  - End with the more detailed financial and legal issues.
- **Readability, Style, & Personality:** Present your message in a way that is easy to read, follow, and understand. Use an appropriate personality, style, voice, or attitude in your writing projects and presentations.
- **Accessibility & Visual Appeal:** Make the most important information the most accessible or easy to find. This may be done with formatting, hyperlinks, tables, bulleted and number lists, and the careful use of headings, among other methods. Supply any visual information that will add to the message.
- **Proofing & Accuracy:** Proofread carefully. Ensure that your business plan, presentation, and Web page are accurate and free from grammatical and spelling errors.

WRITING A BUSINESS PLAN FOR YOUR STARTUP

Now that you have an idea of a product, a service, or an event you want to develop, it's time to start writing a **business plan.** A business plan is a written document that explains and evaluates your business prospects. It must answer this question: What is the future potential of your business? It is a document that must sell your business ideas to **investors,** people with money to invest in a small business.

Creating a business plan is an important process that all startups must go through. In your plan, you will address the following seven topics:

1. Company Name (Activity 14-7)
2. Human Resources & Management Team (Activity 14-7)
3. Product Research and Development (Activity 14-7)
4. Marketing, Sales, and Support Overview (Activity 14-8)
5. Projected Finances (Activity 14-8)
6. Legal Requirements (Activity 14-9)
7. Website Overview (Activity 14-10)

YOUR HUMAN RESOURCES & MANAGEMENT TEAM

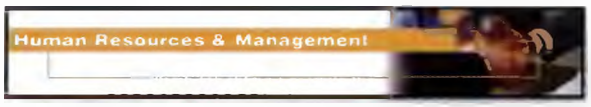


FIGURE 14-17 Corporate View Human Resources & Management

People make companies work. The people in a business are called employees, or **personnel.** The personnel running and managing a business are called **management.** The qualifications of the management team is of great interest to any investor. A top-flight management team and qualified personnel can make a company wildly successful. Investors know that. You need to spotlight your management team in your business plan.

Activity 14-7 WRITE A BUSINESS PLAN—PART 1

1. Meet your business partners, and open an online word processing document such as a Google Docs document or a Word Web App document. Name the file ***Business Plan***. Share the document with all the team members.
2. Invent a company name for your startup. At the top of your online shared document under the heading *Company Name,* key the name of your startup business.
3. *Optional:* Go the extra mile, and design a company logo to insert into your business plan.
4. List all of the members of your management team in your online document. Have each team member write a 25-word description of himself or herself and what he or she can offer the new startup business. Answer this question for each team member: What can I do to make this startup successful?

5. Under the section heading *Human Resources & Management Team,* list your partners and their skills and abilities. Limit yourself to 25 words per person.
6. Estimate how many employees you will need to be successful. What skills do they need to have? Key this information in the business plan.
7. *Optional*: Go to the extra effort of placing a picture of each team member in your document business plan.
8. Under the section heading *Product Research and Development,* explain in detail your product. In a second paragraph, explain what your team believes it will take to develop that product so customers will use the product, attend the event, or take advantage of the service idea you wish to sell. Details matter.
9. *Optional*: Enhance your business plan by drawing a picture of your product, inserting pictures that relate to your ideas, or creating a map (if you are planning an event). Place the images in your business plan.
10. If necessary, save your online business plan before reading and completing the next section.

YOUR MARKETING AND FINANCING PLANS

The Marketing and Finance sections of your business plan are critical. These are the most important sections of the plan when it comes to showing how your product can make a profit for both the business and your investors.

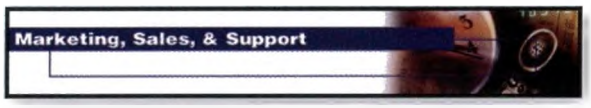


FIGURE 14-18 Corporate View Marketing, Sales, & Support

Marketing, Sales, and Support: Marketing involves promoting your product to customers. (Review Chapter 13 to learn some of the key principles behind marketing.) In your business plan, you will address the *Four P's of Marketing*:

- *Product:* Why would customers be interested in your product?
- *Price:* What will the best price be?
- *Place (distribution):* In what place (online or in stores) will customers find, sample, and buy your product?
- *Promotion:* How will you promote your product?

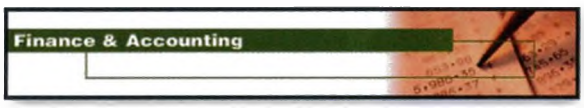


FIGURE 14-19 Corporate View Finance & Accounting

Finance & Accounting: Every business must make money to stay in business. Investors want to make money too! Finances must be addressed in your business plan. You need to show your VC investors the financial potential of your product. You must also keep track of expenses, profits, and losses. What do you think it will cost to bring your product to market? How much will you pay your employees? What other costs can you anticipate? How much **capital** (money) do you need to finance your business?

To run a financial analysis of your business idea, you need to know the difference between your **net profit** and **gross profit**. For example, Keisha wants to create a triathlon business. Hosting a triathlon can be quite profitable. Most triathlon events charge between $75 and $120 per participant. Typical triathlons can draw between 200 and 800 participants.

Potential net profit can vary between $15,000 and $100,000 per event! Take out the expenses, and you have the gross profit. Keisha thinks it will cost about $10,000 to host an event because she has to deduct for security costs, food and treats, winners' medals, T-shirts, time chip rentals, site rental fee, personnel costs, insurance fees, and medical costs. After she deducts her expenses, her gross profit could be between $5,000 and $90,000 depending on how many participants sign up for the triathlon event and how much she charges.

Activity 14-8 WRITE A BUSINESS PLAN—PART 2

1. Meet your business partners again, and reopen your shared online word processing document if necessary.
2. Create a new section in your business plan called **Marketing, Sales, and Support Overview**. Explain how you intend to promote your company and your product. Start by explaining your strategy of using the *Four P's of Marketing* to guide your writing. Answer these questions in this section:
   a. *Product:* Do you have a name for your product, service, or event? Place the name of your product here.
   b. *Price:* What do you believe someone will be willing to pay for your product?
   c. *Place:* Where can customers buy your product? Do you need a sales team? Will you sell the product online, in stores, or door-to-door? Will you use phone sales or a combination of sales techniques?
   d. *Promotion:* What efforts will you make to create interest in your product? How will you advertise: in print, with billboards, on TV, or online? How will you make sure customers know what your product is? How much will it cost to promote your product? Can you promote on a website, on Facebook, or with Twitter?
   e. *Support:* Will your product require any special support? (For example, for Keisha's triathlon, she will need a medical or EMT team, water stations, and police protection for major intersections.)
3. Investors want to make money. Create an online spreadsheet that that shows the profit potential of your product, event, or service. You need to account for:
   a. *Costs:* What are the development costs, marketing and promotion costs, and personnel costs?
   b. *Profit:* How many customers do you need to make a profit at the price point you have set for your product?
   c. *Startup capital:* How much capital (money) do you need to finance your business, get it started, and keep it going until you are profitable?
4. Name your online spreadsheet ***Financial Projections for [your company name]***. Make sure the file is available online for each team member.
5. In your business plan document under the heading Projected Finances, create a link to your *Financial Projects* spreadsheet.
6. *Optional:* Create charts and graphs explaining your projected finances, and insert them in your spreadsheet and business plan.
7. Save your spreadsheet and business plan, and make sure each team member has access to the shared copies.

YOUR LEGAL PLANS

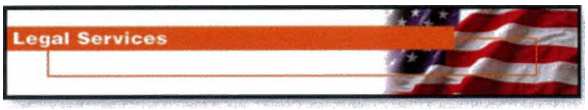


FIGURE 14-20 Corporate View Legal Services

Legal Services: Every business is a **legal entity**. A legal entity is a person or company that can enter into legal business contracts. A legal entity can also be sued for not fulfilling a contract. It must assume the financial responsiblity of its products and services. Businesses are created under the laws of the state (if organized in the United States) or the laws of any country in which it is established. Each state and country has different rules for creating companies. The process of creating a business is called **incorporation**. There are three popular ways to set up a business:

- Sole or single **proprietorship**: A business is owned by one individual.
- **Partnership**: A business is owned by more than one partner.
- **LLC**, or **Limited Liablity Company**: A business is incorporated under state law.

Most startups form LLCs, or something similar, because LLCs provide the most legal protection for personnel. What does it take to legally do business in your state? How do you set up a business? How do you set up a Limited Liability Company?

Activity 14-9 WRITE A BUSINESS PLAN—PART 3

1. Meet with your business partners again, and investigate your legal business obligations.
2. Imagine your VC investor is not from your state. You need to explain what needs to be done to incorporate in your state. Go online (using a Google or Bing search tool) and research how to start a business in your state.
3. Summarize your research under the section heading *Legal Requirements* at the end of your business plan. Address the legal issues of creating a business (or legal entity) in your state.
4. Resave your business plan, and make sure each team member has access to a shared copy online.

LESSON 14-3 Preparing for Your Team's Presentation

IN THIS LESSON YOU WILL:

Objectives

1. Prepare your website.
2. Publish your business plan online and in print.
3. Prepare your slideshow presentation.
4. Practice.
5. Dress for success and present to a VC for your business startup funds.

GET READY FOR YOUR PRESENTATION

You have your business plan written. You know what your product is and how you want to market it. You have done a lot of work, but there are a few things left to do.

- Create your product website.
- Create your team presentation.
- Publish your business plan both online and in print form.
- Practice and prepare for your presentation.
- Give your presentation.

CREATE A STARTUP WEBSITE

Creating websites should be second nature to you after completing Chapters 11 and 13. Now you need to create a website for your product. For her startup triathlon event, Keisha spun off a Google site from her personal triathlon website. She named her event the "Solitude Triathlon." She used a template to help organize the elements she is looking to develop, as seen in Figure 14-21. She has Facebook and Twitter links, a calendar, a map, and other links participants could select. Not a bad start!



FIGURE 14-21
Keisha's Triathlon Event Website

Spence, on the other hand, wants to create a smart-phone product called the Zeek. He created a product Web page in Microsoft Expression that shows the new features of the proposed product, as seen in Figure 14-22.



FIGURE 14-22
Website Created with Microsoft Expression

Activity 14-10 CREATING A PRODUCT WEBSITE

1. Meet with your team, and design a Web page for your startup's product, service, or event. (If necessary, review Chapters 11 and 13.)
2. Create a product Web page, and post it online.
3. Copy the product page Web address (URL), and paste it in an appropriate place in your business plan.

PREPARE YOUR PRESENTATION AND POST IT ONLINE

Create a presentation to explain your product and business plan. Use your business plan as a guide. At a minimum, you must address these seven areas:

1. Your company's name
2. Your human resources & management team
3. Your product and your R&D ideas
4. Your marketing, sales, and support plans
5. Projected finances and your financial spreadsheet
6. An explanation of your state's or country's legal requirements for a business startup
7. A presentation of your team's website

You can use Google Docs' presentation tool, Microsoft PowerPoint, or some other option. Remember that this presentation should be shared with all your team members and should be available online.

Activity 14-11 CREATE YOUR PRESENTATION

1. Meet with your team to develop a presentation for your startup business.
2. Address all seven areas listed on page 488.
3. Add images and charts to your presentation.
4. Save and post your presentation online so all team members can access it and make edits and changes.

PUBLISH YOUR BUSINESS PLAN

If you plan to ask an investor for money, you should have a great-looking printed copy to give out during your presentation. Use your desktop publishing skills to publish an attractive printed version of your team's business plan. Consider using Publisher or Word for the final copy.

You also need to publish and share an online copy of the business plan for your team members. You can format and save it as a Google Doc or a Microsoft file. Also, a PDF format of your business plan (which you can create from a Google Doc or an Office document) may be a good choice to post online. The advantage of using PDF files is that others cannot edit or change them; they can only add comments. You can also use Google Docs' formatting tools or Word Web App online to format your online copy of the business plan.

Activity 14-12 PUBLISH YOUR BUSINESS PLAN BOTH ONLINE AND IN PRINT

1. Meet with your business partners, and format two versions of your business plan:
   - One is to be shared online.
   - Another is to be printed for the presentation. (Ask your instructor how many copies may be needed.)
2. Save both the online and printed version of your business plan. Make sure each team member has access to a shared copy.
3. If necessary, print the business plan.

PREPARE TO PRESENT

Before you present your plan, practice, practice, and practice some more. Keep track of your time. You must be concise, complete, and confident. Review the *Digital Snapshot: Writing Great Business Plans, Preparing Great Websites, and Presenting Your Plans* on page 482. Good luck.

ETHICS

Avoiding Mistakes and Promoting Business Integrity

Mistakes are often made when starting a new business. You and your team will make mistakes as you prepare your business plan. That's why you have been assigned this chapter. It is far better to make a few mistakes now than to make them when it counts—when you have a real business starting up with real money and careers on the line. There are different kinds of mistakes:

- People make honest mistakes. Sometimes new business entrepreneurs are simply unaware of a law impacting their business or misunderstand some rule or procedure. In these cases, honest business owners try to correct the mistake.
- Other mistakes can be the fault of neglect, laziness, or sloppiness. These mistakes are harder to accept. They must also be corrected and may have legal consequences.
- Some mistakes are the result of willful effort. In other words, some dishonest people willfully commit a crime. Businesses that follow these tactics are often called scams. Basically, a scam is an attempt to steal from unsuspecting customers. These types of actions will draw the attention of law enforcement.



Yuri Arcurs/Shutterstock.com

As a businessperson, place ethics and integrity at the top of your business culture. Let every employee know your expectations for honesty and integrity. Cultivate an attitude of avoiding mistakes, being honest, and doing the best job you can for your customers.

INTO THE CLOUD



Photoroller /Shutterstock.com

The cloud keeps growing and growing and growing. It has to grow in order to support the millions of apps people want to use, like online documents, social networks, Web searches, texting, smart-phone apps, video sites, and more. Some have called this system the "mushroom cloud" because it is growing so fast.

There is a lot of competition in the cloud. Companies like Google and Microsoft spend billions of dollars every year to maintain their cloud systems. They also spend a great deal of money to make sure people continue to use their cloud systems instead of their competitors'.

But what makes cloud computing possible? Where are the billions of dollars being spent? Two words: data centers.

Google alone is building hundreds of massive data centers all over the world. These data centers contain millions of computer servers and storage drives. These massive data centers work together and even back each other up; so if one center goes down, another one can take over.

Many other companies have huge data centers: Microsoft, Cisco, Yahoo!, eBay, Facebook, and many more. Governments also have them. To create a data center, companies and government agencies look for three things:

- Large amounts of cheap electricity. (Electricity is the lifeblood of computers.)
- Large amounts of water. (Water is needed to cool the data centers.)
- Large areas of land. (Data centers are big. Also, extra land around the centers makes them easier to secure.)

While reviewing the list of requirements, you may have thought of some important issues that need to be addressed in this discussion.

Discussion:

1. Each data center uses a lot of electricity, which can add to the carbon footprint and increase global warming. What should be done to use less electricity?
2. What is a renewable resource? What should be done to produce electricity from renewable resources?
3. Like all buildings, data centers are vulnerable to natural disasters like tornadoes and earthquakes. Data centers may also become targets for terrorist attacks. What can be done to secure data centers from possible attacks or natural disasters?
4. If a company like Google or Microsoft ever goes bankrupt, what should happen to the data in their data centers?

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 14-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools*.

Building Up: Your Math Skills

Exercise 14-2 CALCULATING CATALOG MAILINGS

Even in the digital world, we do not give up on paper. The truth is, despite all the marketing being done online, there is still a brisk business in printed advertisements and mail-order shopping catalogs being mailed directly to homes. Based on records kept by the Corporate View mailroom supervisor, about 18,000 pieces of outgoing catalogs are sorted and distributed each month.

This week, a mailing sticker has been prepared for each address on a mailing list of 18,000 names. The mailing machine can feed, seal, meter-stamp, count, and stack 200 catalogs a minute. Of the 18,000 catalogs being processed this week, 20 percent are being sent to Virginia, 30 percent to Texas, 15 percent to Utah, and 35 percent to Washington.

1. How long will it take to process all the catalogs using the mailing machine?
2. How many catalogs will be sent to each state?
3. Save your work as ***Exercise 14-2*** in your ***Chapter 14*** solutions folder.

Building Up: Your Language Arts Skills

Exercise 14-3 FROM THE EDITOR'S DESK: CONFUSING USAGE

1. Open your browser software. Use the bookmark in your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications > From the Editor's Desk**.)
2. Choose the **Confusing Usage** link followed by the **All ready, Already; Advise, Advice; Good, Well** link.
3. Copy and paste the questions to a word processing document, and answer the questions. (Read the information provided on the Web page, and follow the directions for completing this practice exercise.)
4. Check your answers by comparing them with the answers on the bottom of the intranet page.
5. Save your work in your solutions folder as ***Exercise 14-3 Confusing Usage***.

Career Clusters



Architecture & Construction

Workers in construction and architectural occupations desgin, construct, inspect, and maintain homes, offices, recreational facilities, and buildings of all sizes. Workers in this career cluster must know the strengths and weaknesses of thousands of new construction products. They must know how to engineer buildings for safety from natural disasters such as earthquakes, hurricanes, tornados, and floods. They must understand how to work with electricity; natural gas; ventilation systems; and state-of-the-art fire, anti-asphyxiation, and security systems.

Millions of North American workers build homes, offices, and public buildings. They also design, construct, and maintain recreational facilities, theme parks, malls, and restaurants. Many involved in these career paths say that there is nothing more rewarding than looking at a building they have built. Review a few jobs and potential salaries from this interesting career cluster in Table 14-2.

Position and Yearly Salary		Position and Yearly Salary	
Architect	$60,300	Landscape Architect	$53,120
Surveyors	$46,080	Electrical Drafter	$39,190
Civil Engineer	$48,050	Carpenter	$38,896
Carpet Installer	$34,091	Construction Laborer	$32,000
Electrician	$42,286	Painter	$31,000
Roofer	$33,350	Highway Maintenance Worker	$32,600

TABLE 14-2
Career Cluster: Architecture & Construction

Exercise 14-4 RESEARCH SOFTWARE TOOLS

1. Choose three jobs in the Architecture & Construction career cluster.
2. Use Internet search tools to find design applications that can help professionals in these three positions do their jobs more effectively. Use a search engine such as Google (www.google.com) or Yahoo! (www.yahoo.com). Use the career's name and the word *software* as the search terms; for example, *landscape architect software*.
3. Try to find at least one software app that can be used by professionals in each of the three careers you chose. List the name of each program.
4. Give a short description of what the software can do for workers in this cluster. Who knows? You may get hooked on the software and decide to purchase it for your professional use sometime in the future.
5. Save your list and short description as ***Exercise 14-4*** in your ***Chapter 14*** folder.

21st-Century Skills

Initiative, Self Direction, & Productivity

Exercise 14-5 LEARN ABOUT SKETCHUP

Google SketchUp is an advanced 3D modeling app. It's the kind of tool architects, contractors, and builders use to design and model what they want to build. It can be used to create models of just about anything, including state-of-the-art data centers, skyscrapers, energy-efficient houses, new electric cars, clothes, shoes, and new electronic devices. If you need a model of something, you can design it in SketchUp. (See Figure 14-23.)



FIGURE 14-23
SketchUp is an important training app for the Architecture & Construction cluster.

Fortunately, a version of SketchUp is free for schools and students to use. You are given just enough of this powerful modeling tool to learn the basics.

And because SketchUp is in the cloud, Google provides online instruction on how to use SketchUp.

1. Visit sketchup.google.com.
2. Click the **Learn more about SketchUp** link to see how SketchUp works.
3. With the permission of your instructor and system administrator, download the free education version and practice using SketchUp.
4. View the YouTube videos and other tutorials online to learn how to use this powerful tool.
5. Meet with your teammates from time to time to see what they have learned about using SketchUp.

Creativity and Innovation

Exercise 14-6 CREATE A SKETCHUP PROJECT

Now that you have learned the basics of SketchUp, create a SketchUp project of your own.

1. Think of something you want to design. It could be something an architect might design, like a building, park, skate park, ski resort, garden, or football stadium. It can be something of your own creation (perhaps a product you want to create and sell). The choice is up to you.
2. Create a 3D model in SketchUp of your design idea.
3. Share your finished project with your class or with your team.

Chapter 15

Personal and Business Financial Skills

Lesson 15-1 Taking Stock of High-Tech Financing
Lesson 15-2 Loan and Mortgage Skills
Lesson 15-3 Maintaining Financial Health

YOU ARE A FINANCIAL POWERHOUSE

Believe it or not, *you* are a business powerhouse. You may not know it, but if you are a teenager, you are an emerging legal entity, just like a startup company. You can sign a contract to work for a corporation. You can sign a contract to take out a loan to buy your first car. Later, you may even buy real estate, like land, an apartment, a townhome, or a house. And you can do a lot more than that. You can:

- Invest money in the stock market, which means you can invest in businesses.
- Invest in a retirement account.
- Invest in yourself by borrowing money for college.
- Apply for credit cards, which is a way to borrow money.



KOCI HERNANDEZ/an Jose Mercury News/Newscom

FIGURE 15-1 You can be a financial powerhouse like Sergey Brin and Larry Page, Google founders.

You can even start a business in your garage if you wish, just like the founders of Google did in 1998. Perhaps you can pick up a few "powerhouse" lessons by learning how the founders of Google went from being college students with student loans to billionaire owners of one of the most succesful companies in the world. (Read *Digital Snapshot: From a Garage to Googol-Size Profits.*)

To navigate your financial future, you must become your own financial powerhouse. Like a business, you must learn to manage money and investments and to stay on top of today's economy. And wouldn't you know it—that there are apps to help you do just that!

DIGITAL SNAPSHOT

From a Garage to Googol-Size Profits

Larry Page and Sergey Brin (see Figure 15-1), the founders of Google, met at Stanford University. The unlikely partners disagreed on almost everything at first. Luckily, as they began sharing ideas, they found a common interest. Together, they created a breakthrough search technology called *PageRank*®. PageRank, as the name implies, ranks Web pages by how relevant they are to a search. The top-secret PageRank system helps people who are doing a Google search find what they are looking for in a fraction of a second.

The pair had invented a great new technology, but the question remained: Could the dynamic duo of search turn PageRank into a powerhouse business? They got their business plan together, created a website demonstrating their PageRank technology, and made a presentation to a venture capitalist in Silicon Valley, California, named Andy Bechtolsheim. Running late for another meeting, Bechtolsheim, who thought PageRank had business potential, interrupted the presentation by Larry and Sergey and quickly wrote a check for $100,000 to Google Inc., a company that did not yet exist!

Larry and Sergey were not prepared for this. The pair immediately learned they could not even cash the check until they had a business account at a bank in the name of their business. And they could not set up a business account until they had gone through the process of creating a legal entity called a corporation.

Sergey, Larry, and their creative college colleagues had already come up with the now famous name for their corporation. Google comes from the word *googol*, a mathematical term for a 1 followed by 100 zeros. They quickly incorporated and set up a bank account in the name of the newly created legal entity—Google Incorporated, or Google Inc. for short. They could now cash their first business check. With that money, they bought computers, hired their first employee, and invested in their small business, beginning operations from inside a garage belonging to the parents of a friend.

Hey, if they can do it, so can you!

"Corporate Information—Google Milestones." *Google*. Web. July 14, 2010. www.google.com/corporate/history.html.

LESSON 15-1 Taking Stock of High-Tech Financing

IN THIS LESSON YOU WILL:

Objectives

1. Learn to track stocks online with a ticker symbol.
2. Compare high-tech stocks based on 52-week high and low, market cap, and current price.
3. Follow the Dow, S&P, and NASDAQ stock indexes.

Key Terms

bankruptcy
bubble
creditors
debt
debtor
Dow Jones Industrial Average (DJIA)
expenses
foreclosure
Great Recession
income
initial public offering (IPO)
market capitalization
NASDAQ
New York Stock Exchange (NYSE)
recession
sectors
shares
stock exchange
trading volume
Wall Street

TAKE FINANCIAL CONTROL



R. Gino Santa Maria/Shutterstock.com

FIGURE 15-2 Take financial control to avoid bankruptcy.

When it comes to money, businesses and people are similar. Both can make a lot of cash. They can also spend more money than they make. Money coming in is called **income**. Bills to be paid out are called **expenses**. When expenses exceed income, **debt** is created.

Not all debt is a bad thing.

- People may borrow money to buy a car to drive to and from work or school.
- Families can take out a loan to buy a home or a condominium.
- A company may borrow money for any new DigiTools needed to expand its business potential.
- A contractor may take out a loan to build a home that will be sold later at a profit.

However, if the debt grows larger than the ability to pay back the money, people and businesses may go bankrupt. **Bankruptcy** is the inability to pay **creditors**. A creditor is someone who is owed money. Someone who owes money is called a **debtor**.

RAISING CASH FOR A COMPANY

In Chapter 14, you created a business plan, a website, and a presentation for an investor. Your goal was to sell your business idea to an investor who could help finance your company. As you read in the preceding Digital Snapshot, this is how Google got started.

As a company grows, it often needs more money, or *capital,* to grow to its potential. The stock market gives businesses a powerful way to raise additional capital by *going public.* Going public means that a privately owned business becomes a company in which anyone can invest: you, your friends, your family, anyone. If you invest in a public company and buy **shares**, you become a partial owner.

Shares are bought and sold on one of the many **stock exchanges** (or stock markets) around the world. To go public, a corporation needs to set up an **IPO**, or **initial public offering**, through a stock exchange.

THE GOOGLE IPO

Google's IPO was legendary. It took place on **Wall Street**. Wall Street is the famous New York City home of two major stock exchanges: the **NYSE (New York Stock Exchange)** and the **NASDAQ**. The NASDAQ trades stocks for almost 4,000 companies. It makes more trades than any other stock exchange in the world. The number of trades is called the **trading volume**. NASDAQ trades are made online using special trading apps.

Google offered 19,605,052 shares of stock at an opening price of $85. For its IPO, which took place on August 18, 2004, Google chose the NASDAQ. The money raised from selling shares was used to finance Google's explosive growth.

Other top technology companies like Microsoft, Apple, eBay, and Yahoo! are public companies as well. Public corporations are listed on a stock exchange like the NYSE or the NASDAQ. To look up the current stock price for a company, you must know its ticker symbol. The ticker symbol for Google is GOOG. In this first activity, use the stock ticker to see how Google is doing since its IPO in 2004.



Sam Chadwick/Shutterstock.com

FIGURE 15-3 NASDAQ Building in New York City

Activity 15-1 STOCK MARKET APP BASICS

1. Open your Web browser, and key either **finance.google.com** or **www.google.com/finance**.
2. Key the ticker symbol for Google, **GOOG**, as seen in Figure 15-4, and click **Get quotes**.



FIGURE 15-4 Ticker Symbol Search

3. The up-to-the minute price for Google is displayed in a Web page similar to that shown in Figure 15-5. A great deal of information is displayed for every company you find. Look for these main parts in Figure 15-5:
   - **a.** Current price
   - **b.** Gain or loss for the day (See Instant Message.)
   - **c.** Stock performance data
   - **d.** Investment-related articles about Google
   - **e.** Chart of the price history
4. To view how Google's stock price has gone up and down since its IPO, click the **All** button, as marked in Figure 15-5, to show the maximum number of years possible.
5. Examine some of the data in the Stock Performance section. Notice the following:
   - *Range*—the high and low price for the day
   - *52 week*—the high and low points of the stock during the last year
   - *Open*—opening price for the day
   - *Vol/Avg.*—the average volume of traded shares
   - *Mkt cap*—short for **market capitalization**, which measures the size of a public company equal to the share price times the number of shares

INSTANT MESSAGE

Losses appear in red and gains appear in black, giving credence to the phrases "in the black" for profits and "in the red" for losses.

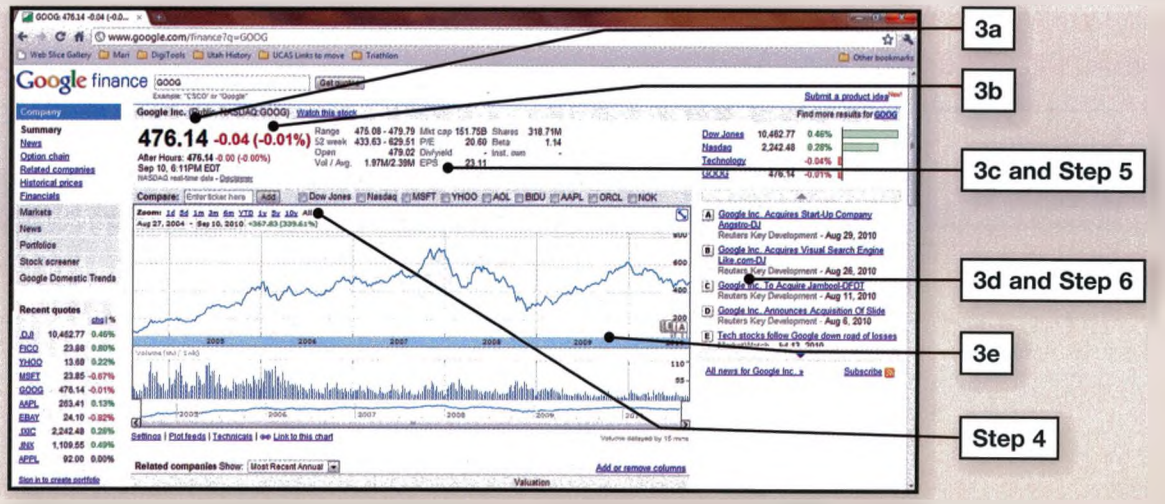


FIGURE 15-5
GOOG Ticker Symbol Search Results

6. Review a few of the investment-related articles about Google as marked in Figure 15-5. Click on and scan through two or three articles. Leave Google's finance app open for the next activity.

Activity 15-2 COMPARE TECHNOLOGY SECTOR OR, "TECH" STOCKS

1. Open an online spreadsheet, and name the file ***My Stocks***.
2. Create an online spreadsheet to track five technology sector stocks.
3. Key the initial information shown in Figure 15-6.

	A	B	C	D	E	F
1	Company Name	Ticker	Current Price	52 week high	52 week low	Market Capitalization
2	Apple Computer	AAPL				
3	Google Inc.	GOOG				
4	Microsoft Corp.	MSFT				
5	Yahoo!	YHOO				
6	EBAY	EBAY				

FIGURE 15-6
Online Spreadsheet to Track Stocks

INSTANT MESSAGE

Google Doc's spreadsheet provides a formula that updates the current stock price automatically: **=GoogleFinance("AAPL"; "price")**

Enter this formula in a Google Docs spreadsheet cell, replacing the AAPL ticker with GOOG, MSFT, or another ticker symbol.

4. If necessary, open your Web browser and rekey **finance.google.com** or **www.google.com/finance**.
5. Key the ticker symbol for Apple Computer, **AAPL**, and click **Get quotes**.
6. Use the values obtained from the Google finance app to fill in the appropriate fields in your ***My Stocks*** online spreadsheet:
   a. Key the Current Price.
   b. Key the 52-week high (which is the highest price in the past 52 weeks).
   c. Key the 52-week low (which is the lowest price in the past 52 weeks).

d. Key Apple's market capitalization in your spreadsheet. (The number is calculated in billions; so 227.39B is 227,390,000,000.)

7. Review a few of the investment-related articles about Apple. Click on and scan at least two or three articles.

8. Repeat steps 6–7, and key the data for GOOG, MSFT, YHOO, and EBAY.

9. Sort your data by market capitalization. Put the company with the highest market cap at the top and the lowest market cap at the bottom.

10. Resave your ***My Stocks*** spreadsheet. If possible, leave this document open for the next activity.

TAKING STOCK OF STOCK INDEXES

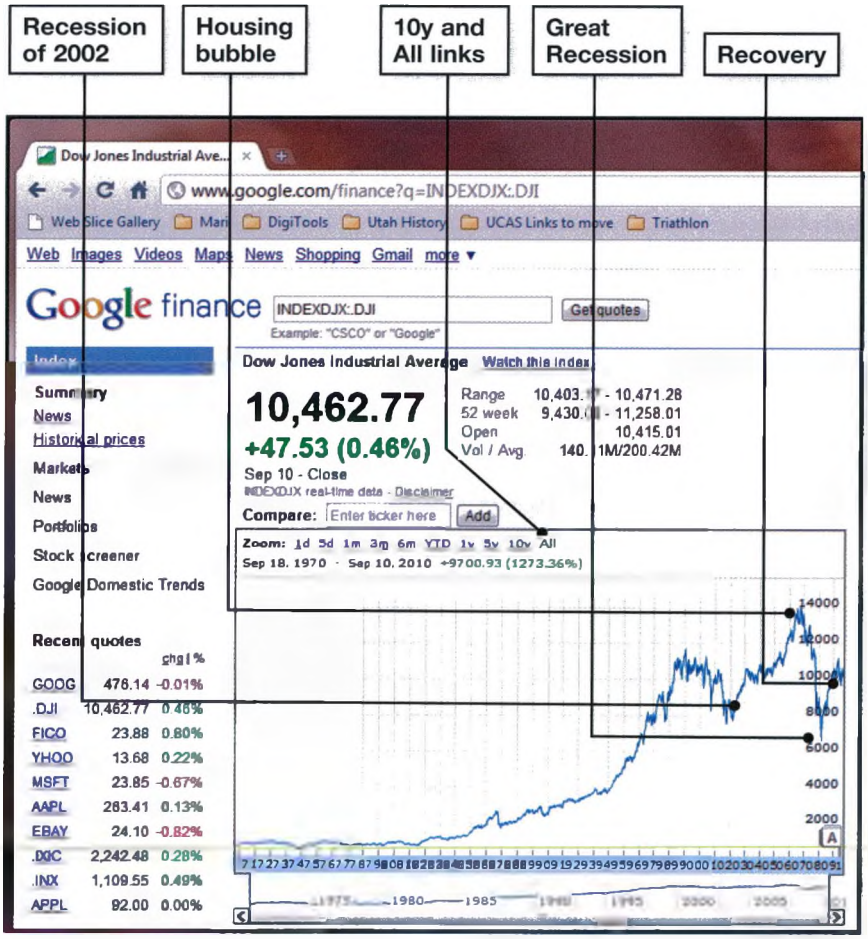


FIGURE 15-7 The Dow Since 1970

The world of stocks and investing can be confusing to newcomers. The journalists reporting on the stock market use many acronyms and ticker symbols. It can sound like a different language, and it is! For example, one of the most widely used acronyms is **DJIA**. This is short for the **Dow Jones Industrial Average**. It is also sometimes called *the Dow*. The Dow was started by Charles Dow and Edward Jones in 1884.

The DJIA is an index (or list) of 30 of the top stocks that represent various categories (or **sectors**) of the economy. A sector is a segment of the economy. For example, American Express and Bank of America represent the financial sector. Coca-Cola represents the beverage sector. Walmart represents the retail sector. By taking in all these sectors, the DJIA tracks the performance of the overall stock market and the overall economy. (See Figure 15-7.)

You can learn a lot by looking at the history of the Dow. In Figure 15-7, you can see the last two recessions. A **recession** is a time period in which the economy stops growing for six months or more. (Read *Digital Snapshot: The Great Recession and Financial Reform*, which follows.)

By definition, a recession is two quarters of negative economic growth. A quarter is ¼ of a year, or three months. Recessions happen every decade or more, and most do not last long. Even short recessions can cause negative economic consequences. In a recession, people lose their jobs, stock prices fall, individuals have less money to spend, and financial hardships fall on millions of people.

A few recessions in history have been very severe, long-lasting, and troubling. In December 2007, the **Great Recession** started. During the Great Recession, the economy stopped growing for 31 months! The economy did not start growing again until January 2010. It was the worst recession in 80 years.

How did the Great Recession start? It started with a real estate or housing **bubble** (marked in Figure 15-7). Between 2004 and 2007, a buying frenzy started in real estate for homes, apartments, and business buildings, driving up prices and creating a bubble—a situation in which the price of real estate went way above the actual value of the properties.

During the frenzy, many banks and mortgage brokers ignored wise lending practices and loaned money to millions of people who did not have the ability to pay back the money. Some banks and mortgage lenders badly abused the system by offering deceptive loans that took advantage of many buyers.

Then the bubble burst. Real estate prices fell quickly. Millions of homebuyers found that they owed more on their homes than those homes were worth. This is called being upside-down on a mortgage. Unable to make the payments, tens of thousands of people lost their homes every week, a situation that continued for years. Between 2005 and 2008, over 1.2 million households went into **foreclosure**.* Hundreds of thousands more homes were lost to foreclosure between 2009 and 2010. A foreclosure happens when someone cannot pay his or her mortgage and the bank takes the home back instead of getting the money that is owed on it.

The impact of the housing bubble bursting was immediate. Housing construction slowed, people cut back on their spending, banks cut back as well, and millions of jobs were lost. Millions of investors lost money in real estate. Hundreds of banks that had made poor investments in real estate filed for bankruptcy. And even banks that had not made poor investments took some serious losses. Hundreds of banks failed, and trillions of dollars were lost in the stock market.

The economy slowly and painstakingly recovered. A recovery occurs when the economy starts to grow again. In Figure 15-7, you can see the impact of the bubble, the Great Recession, and the recovery on the Dow.

To correct the problems that caused the Great Recession, the U.S. Congress passed the *Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010.* This financial reform law guarantees wiser lending and banking practices in the future. Mortgage, credit card, and other loan abuses were corrected. Also, a new consumer protection agency was created to protect average borrowers against abusive lenders. President Barack Obama signed the bill into law on July 21, 2010.



Olivier Douliery/MCT/Newscom

DIGITAL SNAPSHOT 15.1 Signing Bill into Law

*"1.2 Million Households Lost in the Great Recession—CBS MoneyWatch.com." CBS MoneyWatch.com: Personal Finance Advice, Analysis and Financial Planning. Web. July 25, 2010. http://moneywatch.bnet.com/saving-money/blog/home-equity/12-million-households-lost-in-the-great-recession/1907/.

Activity 15-3 TRACKING THE DOW, NASDAQ, AND S&P 500

1. If necessary, open your ***My Stocks*** spreadsheet.
2. Move your cursor down three rows below your stock entries, and key the following in columns A–F:

9	A	B	C	D	E	F
10	**Index Name**	**Ticker**	**Current Level**	**52-week high**	**52-week low**	**Up or Down Today?**

3. Open your Web browser, and rekey **finance.google.com** or **www.google.com/finance**.
4. Click the **Dow Jones** link as seen in Figure 15-8. This will take you to charts and articles that relate to the Dow's progress.
5. Toggle between the **All** and the **10y** (10 year) links to review the charts of the history of the Dow. (See Figure 15-7.) Can you identify the dip caused by the Great Recession? Can you see the housing bubble? Can you track the post-Great Recession recovery?



FIGURE 15-8 The Dow Jones, S&P 500, and NASDAQ

DigiTip

Tickers for stock indexes are preceded by a period:
DOW or DJIA = .DJI
S&P 500 = .INX
NASDAQ = .IXIC
If you are using Google Docs' spreadsheet, you can key this formula to update the value of each index automatically:
=GoogleFinance(".DJI"; "price")

6. Key the following data for the Dow in your ***My Stocks*** spreadsheet.
   a. The name of the index: **Dow Jones Industrial Averages**
   b. The ticker symbol for the Dow
   c. The current level or average of the Dow as of this minute
   d. The 52-week high of the Dow
   e. The 52-week low of the Dow

   Look at the current value or level of the Dow as of today. (Has it gone up or down?)

DigiTip

Active since 1957, the S&P 500 is shorthand for Standard & Poor's. The 500 refers to the number of companies listed in the index. The 500 companies are chosen from the NYSE and the NASDAQ based on their high market capitalization, which must be $5 billion or higher. These companies are often called *large cap* or high market capitalization companies. If you are using Google Docs' spreadsheet, you can key this formula: =GoogleFinance(".INX"; "price")

7. Key the complete set of data (as outlined in step 6) for the S&P 500 in your ***My Stocks*** spreadsheet just as you did for the Dow.

DigiTip

The NASDAQ composite is an index of the stocks listed in the NASDAQ stock market. This means that the index tracks almost 4,000 stocks. Many tech sector stocks are traded on the NASDAQ. This is the stock exchange where Google is traded. (See Activity 15-1.)

8. Key the complete set of data (as outlined in step 6) for the NASDAQ in your ***My Stocks*** spreadsheet as you did for the Dow.
9. Save ***My Stocks***, and then close the file.

LESSON 15-2 Loan and Mortgage Skills

IN THIS LESSON YOU WILL:

Objectives

1. Examine types of debt.
2. Compare loan rates and terms.
3. Calculate loan payments using online apps.
4. Learn how to lower your actual loan costs.
5. Evaluate a mortgage amortization table.
6. Investigate car loan alternatives.

Key Terms

- amortization table
- annual percentage rate (APR)
- compound interest
- effective APR
- interest
- Manufacturer's Suggested Retail Price (MSRP)
- nominal APR
- principal

GOOD DEBT, BAD DEBT

INSTANT MESSAGE

Credit cards can be abused when people borrow money quickly without thinking by swiping a card in a card reader. Many don't consider the costly consequences of credit card use. In 2010, the average American had a credit card debt over $15,519. This is an example of bad debt.



Marie C. Fields/Shutterstock.com

FIGURE 15-9 Credit Cards: Good and Bad

Debt can sneak up on both individuals and companies when they spend and borrow more money than they make. But not all debt is bad. Here are some examples of potentially good debt:

- **Business debt:** Say Keisha and her partners borrow $10,000 in a short-term business loan to finance a triathlon. If they draw 200–800 people at $75 per participant, they can pay back the $10,000 (with interest) and make a $4,000 to $90,000 profit.
- **Housing or mortgage debt:** Keith and Mari both have steady jobs with good wages. Borrowing money to buy a home or condo may be a good investment as compared to paying rent. Home loans are called *mortgages.*
- **Car loan debt:** If Spence and Michelle each need a car to drive to and from work and school, they can justify borrowing the money for a car.
- **School debt:** For Cory and Cassie, borrowing money from a student loan program to finish their Masters of Business Administration (MBA) and communications degrees could lead to higher-paying jobs.

RISKY LENDING AND COMPOUND INTEREST

INSTANT MESSAGE

Lenders may also charge fees in addition to principal and interest. Fees for a $150,000 mortgage may be $4,000 or more. On a car loan, fees may be several hundred dollars. Fees are charged for processing and handling the loan. Unpaid fees are also charged compound interest, which may mean thousands of dollars extra on a typical loan.

When a bank or an investor gives a loan to a borrower, that bank or investor is putting his or her money at risk. (For example, what if only 50 triathletes sign up for Keisha's triathlon event or Spence crashes his car?) To cover the risk and to make a profit, lenders charge **interest**. The interest rate charged over the period of a year is called the **APR**, or **annual percentage rate**.

Simple APR is easy to understand. If you borrow $1,000 for a year at 10 percent APR, you must pay back $1,100 in a year's time. The $1,000 you borrow is called the **principal**. The $100 is the interest. That seems simple enough. In fact, this kind of loan is called a *simple interest* loan with a "**nominal APR**."

But most loans are not so simple. Mortgages, credit cards, and car loans use **compound interest**. Compound interest loans use an "**effective APR**," which includes the principal + the interest + fees. A percentage of the annual interest is calculated every month during the year. While you may be making payments, initially only a small portion of each payment goes toward the principal while the interest continues to accumulate on the loan. See how this works in Table 15-1.



FIGURE 15-10 A lender puts their money at risk with a borrower.

To understand the impact of compound interest, look at the first row of Table 15-1, which calculates a 30-year fixed 6.25 percent interest rate loan with a payment of about $923.57 per month. It is hard to believe, but at this rate, you will pay much more in interest than the original principal you borrowed.

TABLE 15-1
Compound Interest on a House Mortgage*

Years	APR	Payment (PMT)	Mortgage Principle	Interest Paid	Total Paid
30 years (360 months)	6.25%	$923.57	$150,000	$182,488	$332,487
15 years (180 months)	6.25%	$1286.13	$150,000	$81,502	$231,502
30 years (360 months)	4.25%	$737.90	$150,000	$115,644	$265,644

*Numbers are approximate. Actual mortgages will vary.

HOW TO LOWER YOUR INTEREST PAYMENTS

As you can see in Table 15-1, there are ways to lower the total amount of interest you will pay for a mortgage, or for any other loan for that matter: credit cards, car loans, personal loans, etc.:

- Lower the interest rate. (See Table 15-1.)
- Pay the loan off faster, which means paying more than the minimum payment every month.
- Borrow less money by making a down payment at the start of the mortgage. A down payment of 20 percent will lower the principal dramatically. For example, 20 percent down would drop a $150,000 loan to $120,000.

APPS FOR LOAN CALCULATIONS

You probably cannot calculate compound interest in your head. You will need an app for that, and there are many online. Most are free to use, but beware: Most sites with financial apps have advertisements that link to mortgage sites that want to sell you a mortgage. (See the Instant Message and Figure 15-11.)

INSTANT MESSAGE

Sites like www.bankrate.com have many helpful financial apps, but if you click on an ad by mistake, you could end up on a commercial mortgage site. Do not give out personal information on such sites. Look for the free apps for this exercise.

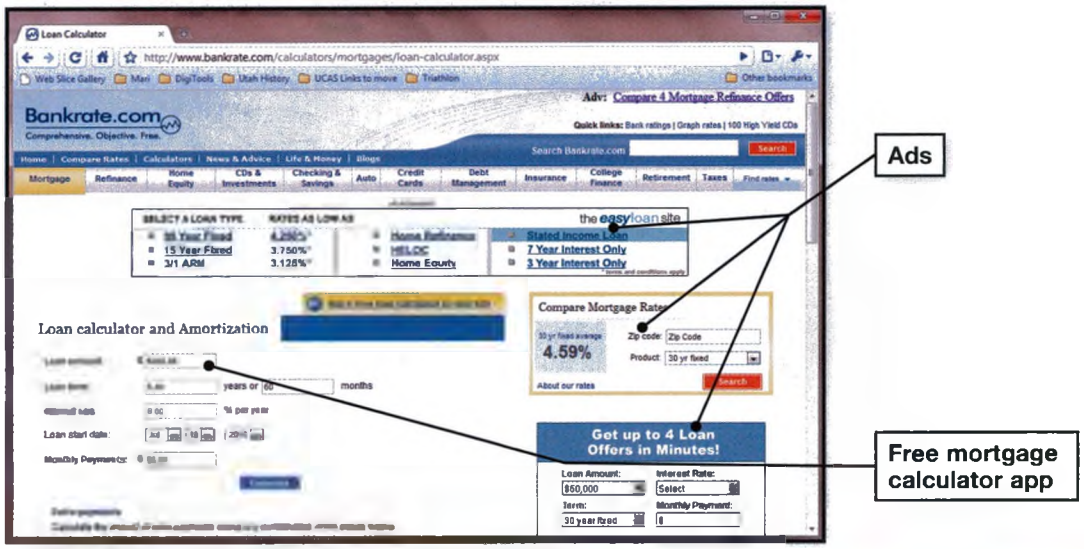


FIGURE 15-11
Site with Calculators and Ads

Activity 15-4 ONLINE LOAN CALCULATOR

1. Open an online spreadsheet to keep track of your answers. Name your spreadsheet ***My Loans***.

2. Start your browser, go to your favorite search tool (for example, Google or Bing), and search for a **loan rate calculator** that will calculate your monthly payment for a mortgage. Manipulate the search terms if necessary to find a tool that will help you calculate the answers you need for this activity. Try the following search terms:

   - Loan rate calculator
   - Free loan rate calculators
   - About loan rate calculation
   - Mortgage loan apps

DigiTip

If you can't go online to find a loan calculator, Excel has loan calculator templates you can use instead. Do a search of Excel templates to find one that you can use to complete this exercise.

3. Calculate the monthly payment for the following compound interest mortgage. Key the total monthly payment in your ***My Loans*** spreadsheet:

Loan amount:	$150,000
Loan term:	30 years (360 months)
Interest rate % per year:	6.25
Loan start date:	Today
Monthly Payment:	_____

4. Calculate the monthly payment for a lower interest rate mortgage. Key the amount of the total monthly payment using this new interest rate in your ***My Loans*** spreadsheet:

Loan amount:	$150,000
Loan term:	30 years (360 months)
Interest rate % per year:	**4.25**
Loan start date:	Today
Monthly Payment:	_____

5. Lower the number of years (loan term) that you would pay on a 6.25 percent interest rate. Calculate the monthly payment for a mortgage over 15 years (rather than 30 years). Key the total monthly payment for this shorter loan in your *My Loans* spreadsheet:

Loan amount:	$150,000
Loan term:	**15 years (180 months)**
Interest rate % per year:	**6.25**
Loan start date:	Today
Monthly Payment:	_____

6. Lower the principal of the loan by paying it down with a 20 percent down payment. Calculate the monthly payment for a mortgage over 15 years. Key the total monthly payment amount for this loan with a 20 percent down payment in your *My Loans* spreadsheet:

Loan amount:	$150,000 – $30,000 (20% down) = **$120,000**
Loan term:	15 years (180 months)
Interest rate % per year:	6.25
Loan start date:	Today
Monthly Payment:	_____

7. Increase your interest payments by increasing the term back to 30 years and increasing the interest rate to 9.25 percent. And do not make a down payment. Calculate the monthly payment for this higher interest rate mortgage. Key the total monthly payment amount with the new interest rate in your ***My Loans*** spreadsheet:

Loan amount:	**$150,000**
Loan term:	**30 years (360 months)**
Interest rate % per year:	**9.25**
Loan start date:	Today
Monthly Payment:	_____

8. Save your spreadsheet, and leave it open for the next activity.

AMORTIZATION TABLES

To accurately learn how much interest you will pay month by month, you need an **amortization table**. An amortization table lists how much interest is being paid compared to the principal being paid each month. This table shows the huge impact of compound interest and effective APR rates. Notice in Table 15-2 how much more interest is paid on the first payment compared to the last payment. This information can come as a bit of a shock to first-time borrowers.

INSTANT MESSAGE

It would take pages and pages to display an amortization table for 30 years x 12 months; so only every 20th month is shown in Table 15-2. However, this is enough for you to get an idea of how compound interest works to create huge interest payments at the start of a loan.

Payment Number	Principal	Interest	Ending Balance
1	$142.33	$781.25	$149,857.67
20	$157.09	$766.49	$147,008.14
40	$174.29	$749.29	$143,688.72
60	$193.37	$730.20	$140,005.86
80	$214.54	$709.03	$135,919.79
100	$238.03	$685.54	$131,386.35
120	$264.09	$659.48	$126,356.57
140	$293.01	$630.57	$120,776.10
160	$325.09	$598.49	$114,584.65
180	$360.68	$562.90	$107,715.32
200	$400.17	$523.41	$100,093.91
220	$443.98	$479.59	$91,638.06
240	$492.59	$430.98	$82,256.41
260	$546.52	$377.05	$71,847.62
280	$606.36	$317.22	$60,299.21
300	$672.75	$250.83	$47,486.42
320	$746.40	$177.17	$33,270.82
340	$828.12	$95.45	$17,498.81
360	$914.01	$4.79	$0.00

TABLE 15-2
Amortization Table

Notice that with a $150,000 mortgage, it will take 200 payments to pay off the first $50,000, less than 100 payments to pay off the next $50,000, and less than 60 payments to pay off the final $50,000. This is represented in Figure 15-12. It is the impact of compound interest that turns an APR of 6.25 percent on a $150,000 loan into a $332,000 payoff. On this loan, it will take about 18 years before you stop paying more monthly interest than monthly principal.

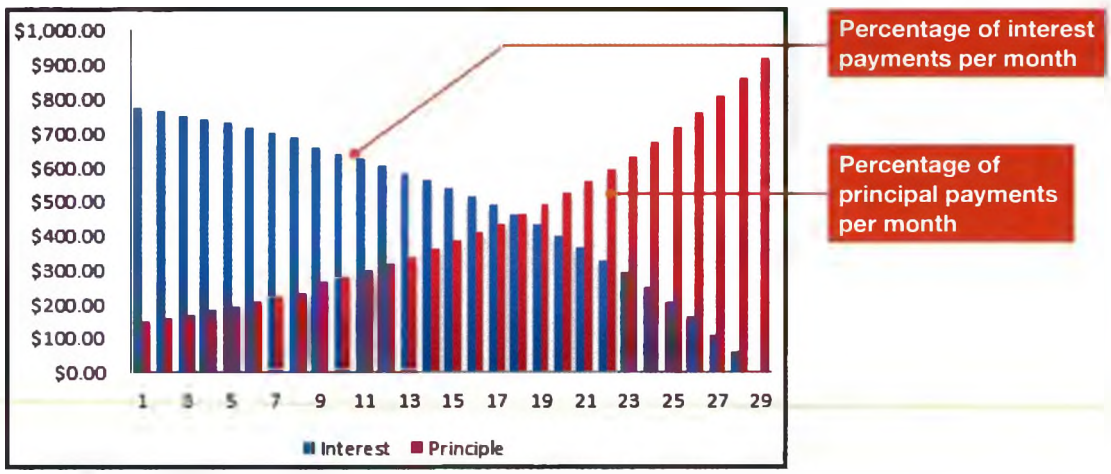


FIGURE 15-12
Interest Versus Principal

LOCAL CAR LOAN RATES

If you are not currently in the market for a car, you soon will be. Remember, the same principals that apply to mortgage loans apply to car loans:

- Look for the lowest interest rate possible.
- Negotiate for lower fees (like licensing or shipment fees).
- Make a down payment of 10%–25% if you can.
- You will pay less if the term of your loan is shorter. (A three-year payoff will save you a lot of money over a five- or six-year loan.)

The biggest mistake new car buyers make is to focus on the monthly payment instead of the true amortized cost created by compound interest. A lower payment over a longer term (number of years) can cost you much more than you think, as you can see in Figure 15-12.

Activity 15-5 CAR BUYING

1. Reopen your ***My Loans*** spreadsheet. In your online spreadsheet, key the results for the blanks shown in steps 3 and 4.

DidiTip

Find three rates for auto loans from banks and credit unions in your area. Do the rates change based on the term or number of years for each loan? (*Note:* Remember, if you can't go online to find a loan calculator, Excel has loan calculator templates that you can use instead.)

INSTANT MESSAGE

Be careful of 0 percent car loans. They sound great, and can be great, but often you pay more for the car, which ends up costing you more in the long run. Run the numbers! How you can save the most money: (1) Pay less for the car at a low rate. (2) Pay more for the car at a 0 percent rate of interest?

2. Visit auto websites, go to local car lots, and visit local bank and credit union websites.

- Find three loan rate options for a used car that costs $10,000.
- Do the loan rates change based on the term or length of the loan?

3. Key the information you obtain in your ***My Loans*** spreadsheet.

Lender 1: _____	Lender 2: _____	Lender 3: _____
Used Car Sticker Price:	Used Car Sticker Price:	Used Car Sticker Price:
About $10,000	**About $10,000**	**About $10,000**
3 year = _____%	3 year = _____%	3 year = _____%
4 year = _____%	4 year = _____%	4 year = _____%
5 year = _____%	5 year = _____%	5 year = _____%
6 year = _____%	6 year = _____%	6 year = _____%

4. Pick three new car dealers, and see if they have any special offers that can save you money on a new car. Do the dealers offer any special low interest rates, help with a down payment, or shorter payoff terms? Much of this information can be found online. Key this information in your ***My Loans*** spreadsheet. (*Note:* MSRP is the Manufacturer's Suggested Retail Price, explained in more detail in the next section.)

Auto Dealer 1: _____	Auto Dealer 2: _____	Auto Dealer 3: _____
New Car Model: _____	New Car Model: _____	New Car Model: _____
Sticker or MSRP Price: _____	Sticker or MSRP Price: _____	Sticker or MSRP Price: _____
3 year = _____%	3 year = _____%	3 year = _____%
4 year = _____%	4 year = _____%	4 year = _____%
5 year = _____%	5 year = _____%	5 year = _____%
6 year = _____%	6 year = _____%	6 year = _____%

5. Save and close your ***My Loans*** spreadsheet.

GO GREEN: COMPARE ELECTRIC, CNG, AND HYBRID SAVINGS

In 2010, new all-electric cars were introduced. Nissan brought out the Leif, and General Motors introduced the Chevy Volt. Other fuel-efficient hybrid cars are battery- and gasoline-driven. Still other cars are fitted with CNG, or compressed natural gas, a low-cost fuel. These green (eco-friendly) cars are more expensive to buy, but you can save a bundle of money on the cost of gas or the energy to run them. They also can have a less negative effect on the environment. Additionally, some of these cars offer special tax breaks that make them less expensive to buy initially. It's like the government is giving you a down payment to buy a green car!

Will these cars save you money over a five-year period? What is the overall cost efficiency? How much money can you save? To find out, you need to know the **MSRP**, or **Manufacturer's Suggested Retail Price**; the average MPG or equivalent miles per gallon; and the current price of gasoline. In this teamwork project, compare one of the following new green fuel-efficient cars with a typical gasoline car:

- All electric
- Hybrid (part electric and part gasoline)
- Compressed natural gas (CNG)

Activity 15-6 TEAMWORK: FUEL EFFICIENCY COSTS

Which car is least expensive to own over a five-year period? Can you figure this out with your team? To do the comparison, you will need to calculate:

- The MSRP minus any tax breaks and dealer incentives or discounts.
- The MPG (miles per gallon) equivalent.
- The current price of gasoline.
- The number of years or term of the loan.

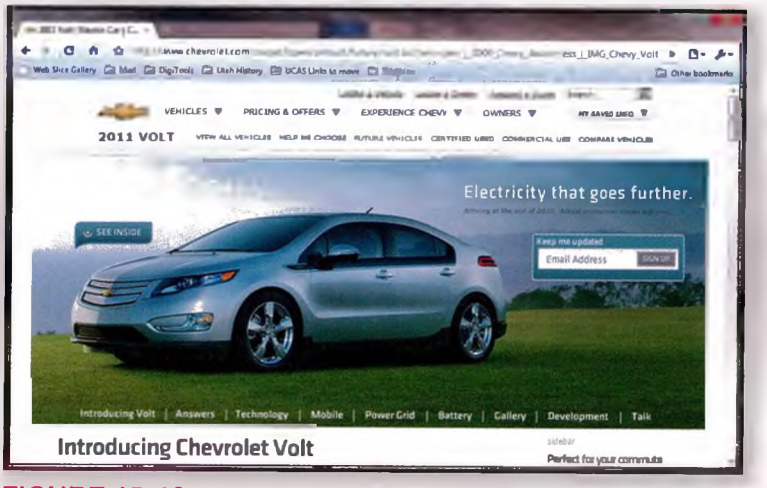


FIGURE 15-13 One of Many Electric Car Options

Meet and design an online spreadsheet that will compare an electric, hybrid, or CNG car with a typical gasoline-only vehicle.

1. Pick your cars:
   - **a.** As a team, pick a favorite electric, CNG, or hybrid vehicle.
   - **b.** As a team, pick a comparable all-gasoline car for the comparison.
2. Gather the following information for each car:
   - MSRP
   - Any special offers (lower interest rates, tax breaks, help with a down payment) that may impact the overall cost
   - MPG equivalent
3. Create an online shared team spreadsheet, and discuss how you can calculate the fuel efficiency and cost efficiency of your car choices using these additional variables:
   - Miles to be driven each year: 15,000
   - Number of years to keep the car: 5 years, or 60 months
   - Current price of gasoline per gallon: _____
4. Calculate the cost efficiency of each car over five years.
5. Determine which car is most cost-efficient.
6. Save your spreadsheet as ***Green Car Cost***, and then close the file.

LESSON 15-3 Maintaining Financial Health

IN THIS LESSON YOU WILL:

Objectives

1. Review the role of CPAs in managing the financial health of a business.
2. Learn how credit reports can help you view your own credit health.
3. Learn how to obtain a personal credit report.
4. Examine how to find answers to tax questions.
5. Learn where to find answers about student college loans.

Key Terms

accountants
accounting
American Institute of Certified Public Accountants (AICPA)
Certified Public Accountant (CPA)
finance
forecasting
funds
Internal Revenue Service (IRS)

MAINTAINING CORPORATE HEALTH WITH A CPA



OlinaYdur/Shutterstock.com

FIGURE 15-14 Certified Public Accountant

The same way an individual must manage his or her budget, a business must manage how money is budgeted, invested, and spent by its employees. To avoid making mistakes, corporations hire financial wizards, called **accountants**, who have skills in finance and accounting. **Finance** is the science of managing money, or **funds**. The financial team gathers investment capital (funds and other assets), manages the growth of that capital, and minimizes financial risks.

Accurate **accounting** helps businesses (and individuals) be responsible with their profits and losses. Accountants record, interpret, and communicate information about the finances of a business. Accountants report to investors on the financial health of a company. They help business owners make wise decisions about the future of their business. Anticipating the financial future of a company is called **forecasting**.

CPAs are the backbone of any accounting and financial team. **CPA** is short for **Certified Public Accountant**. To become a CPA, a candidate must:

- Have a degree in accounting from a university or college.
- Gain on-the-job experience.
- Pass an examination given by the **American Institute of Certified Public Accountants (AICPA)**, whose website is shown in Figure 15-15.

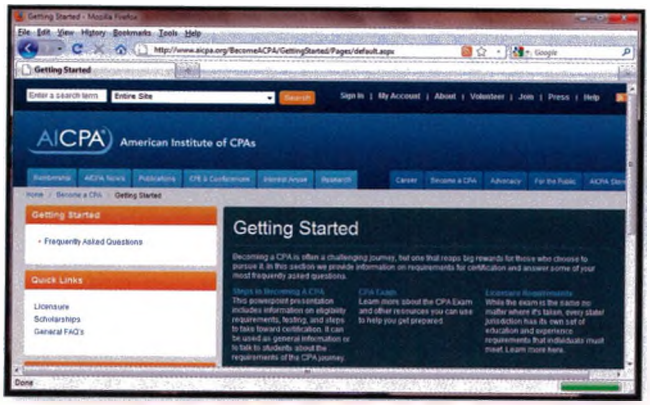


FIGURE 15-15
AICPA Website

Activity 15-7 CPA REQUIREMENTS

1. Visit the AICPA website.
2. Learn what it takes to qualify to become a CPA.
3. Open an online word processing document and write a short, one-page report about CPAs. Include the following information:
   - What do CPAs do?
   - How does someone become a CPA?
   - Explain the role of the AICPA in regard to CPA qualifications.
4. Save your report with the name ***CPA Research***.

MAINTAINING PERSONAL FINANCIAL HEALTH WITH FICO

INSTANT MESSAGE

The three credit bureaus collect slightly different information, so a credit score may vary slightly between each of the big three. Credit scores cannot discriminate based on race, gender, or ethnicity.

How can a lender guess the likelihood that a borrower will pay his or her debts? How risky is a loan? Would you be a good risk for a loan?

FICO is the answer. FICO gives borrowers a measure of their financial health. FICO is the ticker symbol for the Fair Isaac Corporation. FICO created a statistical credit scoring system in 1958. It created a credit card scoring system in 1970. There are other scoring systems (NextGen, VantageScore, and CE Score), but FICO is the best-known credit scoring system. Three big American credit bureaus provide credit histories and credit scores to lenders:

- Equifax: www.equifax.com
- Experian: www.experian.com
- TransUnion: www.transunion.com

Review Table 15-3 to better understand what the credit scores generated by these companies mean.

700 and higher	Excellent credit	A score over 740 may mean better interest rates or terms from lenders.
680 to 699	Good credit	With this score, you qualify for most loans and credit cards.
621 to 679	OK credit	With this score, your terms may be more demanding.
620	Marginal credit	For most lenders, approximately 620 is their cutoff for awarding credit.
600 or below	Bad credit	It is not good news to fall below 600. Nevertheless, about 20–25 percent of Americans have a score below 599. This means they will have a hard time qualifying for a credit card or a home mortgage loan. Car loans may also be difficult to obtain.

TABLE 15-3 Credit Scores

MAKING THE FICO PUBLIC

INSTANT MESSAGE

Beware! Many websites want to charge you to view your own credit report—which you can view for free! If you need to know your credit score every few days, it may be worth the cost of signing up with a credit report company online. However, if you need a copy only once a year, do not get snookered by online credit report ads.

In the past, only lenders could know your credit score. The score was hidden from potential borrowers. You could not argue for better rates because you had a high score. If you were denied a loan, you would often not know why.

The *Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010* changed that. Now, if you are turned down for a loan or credit card, lenders must give you the score they used to deny you credit.

Another law, called the *Fair Credit Reporting Act*, gives you the legal right to obtain a free credit report each year from AnnualCreditReport.com. Here is what the Federal Trade Commission, the agency that manages this system, says about this site:

> What is AnnualCreditReport.com?
>
> AnnualCreditReport.com is the ONLY authorized source for the free annual credit report that is yours by law. The Fair Credit Reporting Act guarantees you access to your credit report for free from each of the three nationwide credit reporting companies.
>
> The Federal Trade Commission has received complaints from consumers who thought they were ordering their free annual credit report, and yet could not get it without paying fees or buying other services. TV ads,

email offers, or online search results may tout "free" credit reports, but there is only one authorized source for a truly free credit report.

Source: Requesting the Reports. "The Federal Trade Commission's Information on Free Annual Credit Reports." Federal Trade Commission. Web. July 22, 2010. www.ftc.gov/freereports.

Activity 15-8 GET A FREE CREDIT REPORT

INSTANT MESSAGE

If you have a hard time finding the information on www.irs.com, use the data file in your ***DigiTools Data/ Chapter 15*** folder called ***IRS_Business_or_Hobby***.

1. Open an online word processing document, and name it ***My Credit Report***.
2. Open your browser, and visit **AnnualCreditReport.com**.
3. Click on the **Frequently Asked Questions** link, and answer the following questions:
   - What is fraud alert, and how can it be helpful?
   - What is a credit file disclosure or a credit report?
   - What are the three credit reporting companies?
   - How often may you obtain a free credit report?
   - How many reports may you obtain every year from the big three credit reporting companies?
4. Search for and visit the sites of the three credit reporting companies. List the URLs of the three credit companies.
5. Save and close your ***My Credit Report*** document.

MAINTAIN TAX HEALTH

Every person and every business must pay taxes. Taxes pay for roads, schools, and the military. Taxes help provide breakthrough medical research, airport security, and a host of other things.

Businesses need to pay taxes on their profits, just like people pay taxes on their income. Businesses also need to invest in order to grow. They can "write off" these investment costs. This means businesses do not have to pay taxes on these costs.

If you start a business, you can write off expenses too. However, what if your business is a personal hobby that you want to turn into a business? For example, Keisha's hobby is the sport of triathlon. She wants to turn her hobby into a business by organizing a triathlon event. Can she write off those expenses on her taxes? Where can you go to find out?

The U.S. Government agency that answers tax questions is the **Internal Revenue Service**, or **IRS**. Go to the IRS site, and see if you can turn your hobby into a business opportunity.

Activity 15-9 KEEP YOUR TAX HEALTH

1. Visit the IRS by going to www.irs.gov.
2. Search for **business or hobby** in the search box shown in Figure 15-16.

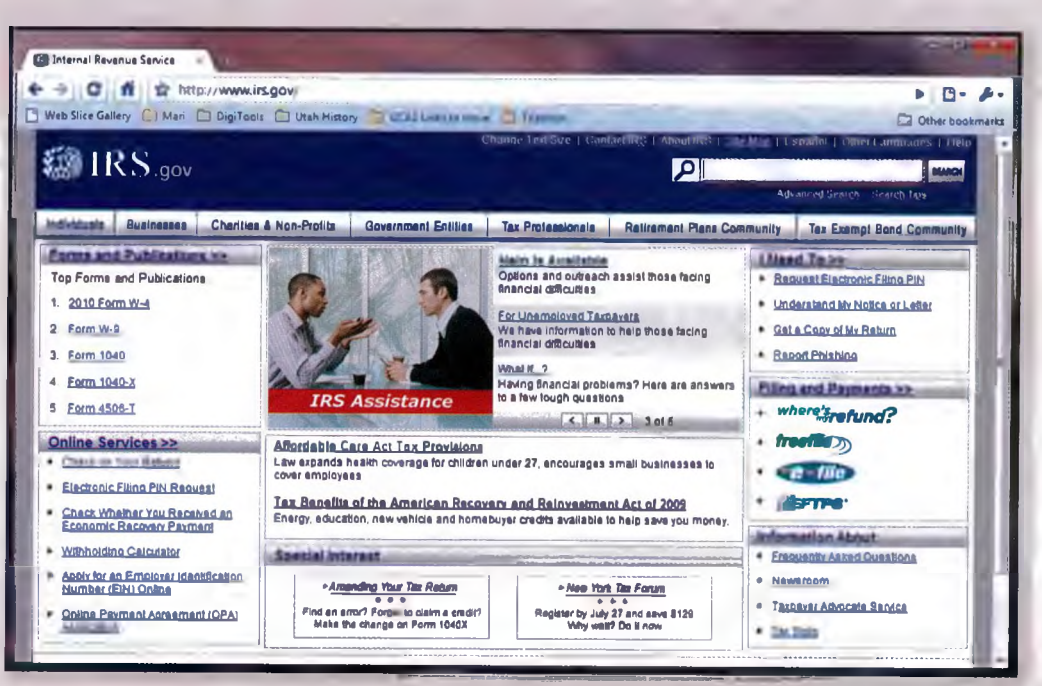


FIGURE 15-16 IRS Website

3. Search for an official IRS file that will answer how and if you can make a business out of your hobby.
4. Analyze the IRS information on hobbies and business.
5. Write a short summary that answers this question: How can I turn my hobby into a profitable business and legally write off business expenses?
6. Save your document as ***Hobby or Business***, and then close the file.

STUDENT LOANS

Everyone must think about how to expand his or her educational opportunities. Universities and colleges charge tuition, and there are additional expenses for books and housing to live near campus. Going to college can be costly. How can you pay for school?

The U.S. government simplified the rules and procedures governing student loans. In the *Student Aid and Fiscal Responsibility Act of 2009*, Congress expanded low-interest loans and provided generous payment terms through the Federal Department of Education.

1. Open an online word processor, and name the file ***My Student Loans***.
2. Do a Google, Bing, or Yahoo! search to learn more about your rights regarding student loans. Answer these questions:
   - Who provides federally insured loans directly?
   - Starting in 2014, what percent of your discretionary income must you pay after you graduate?
   - Can the unpaid balance on loans be forgiven? If so, when?
3. You may not need to take out a loan for college if you can get a grant. Do a Google or Bing search to learn about Pell Grant scholarship awards.
   - What is a Pell Grant?
   - Who qualifies for a Pell Grant?
   - How can you apply for a Pell Grant?
4. Record the information you learned about grants.
5. Learn more about student loans. Visit the Department of Education student loan site at www.direct.ed.gov. Investigate how to obtain a student loan. What do you need to do to qualify for a student loan for your university or college education?
6. Record what you learned about student loans.
7. Save and close your ***My Student Loans*** document.

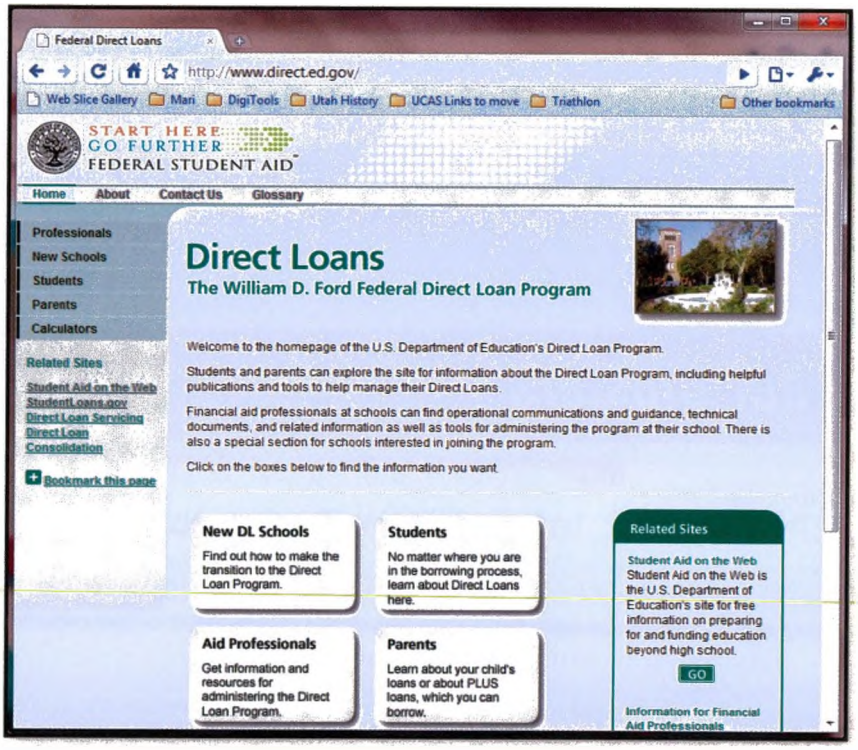


FIGURE 15-17 Direct Loans Website

INTO THE CLOUD

For over 10,000 years, people have been writing on many things: cave walls, clay tablets, papyrus, and eventually paper. Every paper document will eventually wear and wither away. Sadly, many of our ancient writings have been lost or destroyed and no longer exist. Luckily, a few of those documents have survived the centuries.

While still in college, Google co-founders Sergey Brin and Larry Page worked on the Stanford University's Digital Library Technologies Project. They believed, even back then, that paper books could be scanned, digitized, and scrutinized electronically, much like Web pages.

What started out as a library project has put the future of your local public library in question.



Larry and Sergey picked up the concept behind the library project they had worked on years earlier at Stanford when, in 2002, Google launched the Google Books Project, a program to digitize every available book in the world. The search giant is working with major libraries to convert paper books into digital books. Imagine trying to scan and digitize every book ever written! Then imagine doing this for over 400 languages!

In digital format, books can last forever in the cloud. These books can be downloaded and read on nearly any DigiTool: iPad, smart phone, digital book reader, and computer. Just like searching Web pages, you can also search digital books, making it easy to find what you are looking for. Searching books, which used to be done by professional librarians trained to find information in stacks of printed material, can now be done by anyone who has a computer and Internet access.

All this new technology is putting pressure on local libraries to upgrade their services. Many compete by providing materials in different languages. Others have gone digital in an effort to compete.

Discussion:

1. Do you use your local public library? Why or why not?
2. Do you speak a language in addition to English? Does your local library support that language? Can you find books using Google Books in that language? (Give it a try.)
3. Does your local library provide digital books that you can electronically check out for free? (Go find out!)
4. What is the future of the public library?
5. If Google ever goes out of business, what do you think should happen to its digital book collection?

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 15-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools*.

Building Up: Your Math Skills

Exercise 15-2 CALCULATING FOLDERS FOR ARCHIVED DOCUMENTS

Digital copies are made of most business and medical documents. However, some older documents must be kept in their original printed form for legal, financial, and historical purposes. Many of these documents must be placed in long-term document storage. Some document storage facilities are located in old mines in the West. These old mines tend to be cool and dry, which helps keep documents from deteriorating.

Imagine you have to help prepare legal, financial, and historic documents to be sent to a storage facility in an Idaho mine for the next 20 years. The documents must be placed in file folders in file drawers for shipment to the storage center.

1. The working/active file drawer that you begin with contains 75 folders. Documents from 15 of these folders were converted to a digital PDF format. The old hard copies of these 15 folders of documents need to be transferred to inactive storage in the Idaho mine. Of the remaining working/active folders, six had their contents divided into two folders each.
   a. How many active folders are now in the file drawer?
   b. What is the percentage of decrease in the number of folders in the active file?
2. Eight departments have requested additional folders for storing documents long-term in the mine. Folders are ordered in boxes from the supply company, and each box contains 25 folders. The number of folders each department needs is shown below.

Accounting	21	Production	175
Finance	48	Public Relations	100
Human Resources	99	Marketing	260
Information Systems	125	Customer Service	32

   a. How many folders are required to meet the needs of all the departments?
   b. How many boxes of folders should be ordered?
   c. How many folders will be left after each department has received the number of folders it requested?
3. Save your work as ***Exercise 15-2*** in your ***Chapter 15*** solution files.

Building Up: Your Language Arts Skills

Exercise 15-3 FROM THE EDITOR'S DESK: CONFUSING USAGE

1. Open your browser software. Use the bookmark in your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications > From the Editor's Desk**.)
2. Choose the **Confusing Usage** link followed by the **It's, Its; There, Their, They're; Accept, Except** link.
3. Copy and paste the questions to a word processing document, and answer the questions. (Read the information provided on the Web page, and follow the directions for completing this practice exercise.)
4. Check your answers by comparing them with the answers on the bottom of the intranet page.
5. Save your work in your solutions folder as ***Exercise 15-3 Confusing Usage***.

Career Clusters



Finance

Enron, once one of the most profitable companies in the world, was not honest and failed to keep accurate accounting records and earnings reports. As a result, Enron was driven into bankruptcy in 2002. Many of its top executives went to jail. The Enron scandal caused changes in financial regulation that enacted stricter bookkeeping and reporting standards.

Everyone must manage money honestly. This is especially true for financial professionals who have the job of managing financial performance. These professionals study how money is used and "account" for the accuracy of financial records. For example:

- *Economists* study how society allocates scarce resources such as land, labor, raw materials, and machinery to produce goods and services.
- *Budget analysts* examine, analyze, and seek new ways to improve efficiency, helping businesses use their money more effectively.
- *Accountants* create income statements and balance sheets that report how a company uses its money.
- *Insurance underwriters* evaluate how much customers will pay for insurance.

Look at these and additional careers in the Finance career cluster shown in Table 15-4.

Position and Yearly Salary		Position and Yearly Salary	
Economist	$72,750	Accountant	$50,770
Cost Estimator	$49,940	Auditor	$50,770
Financial Manager	$81,880	Credit Analyst	$64,440
Benefits Manager	$66,530	Personal Financial Advisor	$70,300
Management Company Financial Manager	$97,730	Insurance Underwriter	$48,550
Insurance Analyst	$58,120	Government Financial Manager	$67,260
Bank Teller	$21,120	Loan Officer	$48,830
Bookkeeping Clerk	$28,570	Tax Examiner	$46,180
Payroll Clerk	$31,300	Tax Preparer	$34,710

TABLE 15-4
Career Cluster: Finance

Exercise 15-4 EXPLORE A CAREER IN FINANCE



Together with your team explore in depth a career in the Finance cluster.

1. Create an online shared document to organize your team's research. Name the file ***Financial Career***.
2. Research the following topics online:
   a. Nature of work and working conditions
   b. Opportunities for employment
   c. Training or education required
   d. Qualifications
   e. Potential earnings
   f. Related occupations
3. Write a summary of your findings.
4. Save your document, and then close the file.

Exercise 15-5 PRESENT YOUR TEAM'S FINANCIAL CAREER



Get together with your team again, and prepare an online slide show to share your financial career information with the class.

1. Create an online shared presentation slide show to display your team's research from Exercise 15-4.
2. Name the file ***Financial Career Presentation***.
3. Prepare a title slide that includes the name of the career and the current date.
4. Include slides on each of the topics your team researched in Exercise 15-4, step 2.
5. Add graphics, motion, or sound to enhance your slides.
6. If necessary, resave your team's ***Financial Career Presentation***.
7. Practice and then deliver your presentation to the class or to a small group.

INSTANT MESSAGE

List only three or four subpoints on a slide. If you need to present more information, create another slide with the same main title.

21st-Century Skills

Initiative and Self-Directed Study

Exercise 15-6 FIND A DIGITAL BOOK

Digital books were the topic in this chapter's "In The Cloud" feature. Are you interested in finding a digital book to read for the summer? Pick a book that can teach you something new.

1. Go to books.google.com. (See Figure 15-18.)
2. Search for a digitized book of personal interest written before 1900.
3. Read the book.
4. Create a book report summarizing what the book was about and what you learned from it.
5. Save your book report as ***Exercise 15-6*** in your ***Chapter 15*** solutions folder.

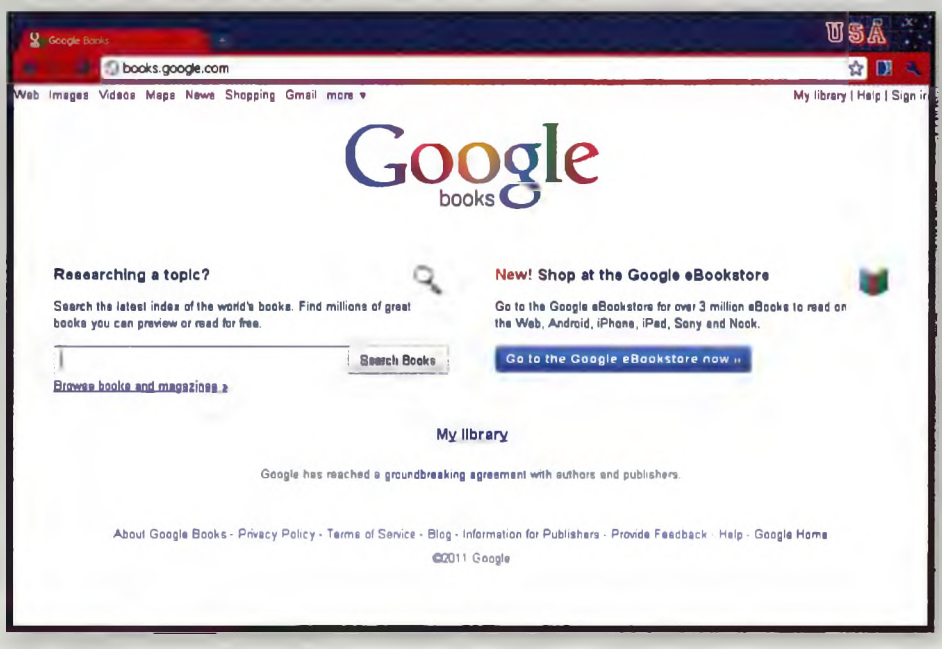


FIGURE 15-18 Google Books

Chapter 16

Career and Job Search Skills

Lesson 16-1 On-the-Job Teamwork
Lesson 16-2 Finding Jobs
Lesson 16-3 Investigating Salaries and Comparing Jobs

DEPARTMENT SHOPPING



iStockphoto.com/Daniel Loiselle

FIGURE 16-1 People must work together for a team to reach full potential.

What do you want to do with the rest of your life?

That is a challenging question. Choosing a career cannot be taken lightly. You should take time to study the possibilities; search the latest employment info; think about what you want to do; and, armed with this information, evaluate your career options.

Before you begin this process, however, you need to consider how people actually get their work done. In business, many things must be done simultaneously. One person cannot do everything himself or herself. People must work together if their business is to reach its potential. Teamwork is critical.

LESSON 16-1 On-the-Job Teamwork

IN THIS LESSON YOU WILL:

Objectives

1. Learn how teams and departments are organized on the job and how mission-critical functions help businesses succeed.
2. Investigate career paths.
3. Learn the purpose of job descriptions, examine the parts of a typical job description, and classify jobs by departments and career clusters.

Key Terms

department
job description
mission-critical

DEPARTMENT DUTIES AND FUNCTIONS

When you take a job, you are likely to be assigned to a team or group whose members perform similar tasks. Your group is likely to be assigned to a **department** in the company. Departments are organized to accomplish essential, or **mission-critical**, activities that are vital to the success of a business. (See Table 16-1.)

When job hunting, you need to look not only for a company, but also for a department in which you will feel comfortable. Perhaps you can see yourself as a team member in one of the mission-critical departments listed in Table 16-1.

Research & Development	Human Resources & Management
Marketing, Sales, & Customer Support	Corporate Communications
Finance & Accounting	Grounds & Maintenance
Information Technology	Manufacturing
Legal Services	Warehousing & Shipping

TABLE 16-1
Mission-Critical Departments

Each department has different duties. For example, a *Grounds & Maintenance Team* maintains an aesthetically pleasing, clean, and safe working environment for employees. The *Manufacturing Department* makes the products that a company sells. The *Warehousing & Shipping Department* stores, transports, and ships the products to stores and customers. You will learn about other essential departments in Activity 16-1.

Activity 16-1 SHOP AROUND THE DEPARTMENTS

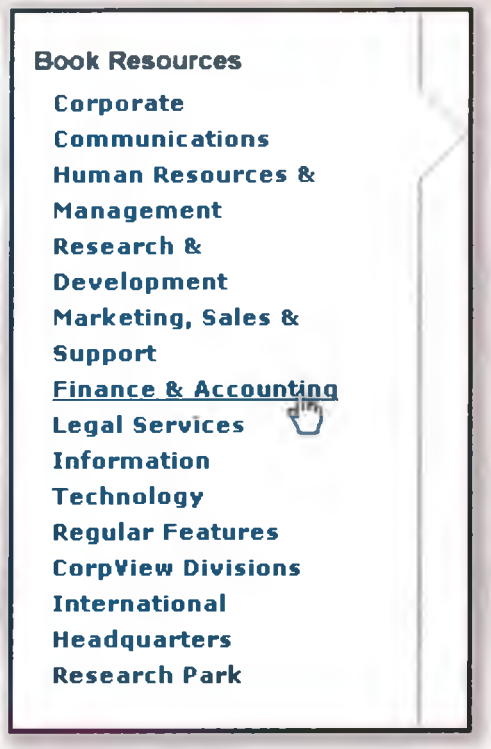


FIGURE 16-2 Corporate View's Mission-Critical Departments

1. From the data files, open ***Activity 16-1 Notes*** from the ***Chapter 16*** folder.
2. Access the Corporate View intranet online at *www.cengage.com/school/keyboarding/digitools* or from your local network as directed by your instructor. Then click on the **Corporate View** button. (See Chapter 2 for more detailed instructions.)
3. Click the **Finance & Accounting** department link.
4. Choose the link **About Finance and Accounting**. This opens a description of the functions of this vital department.
5. Read and take notes as you learn about the responsibilities of the Finance & Accounting department. Key your notes in the *Finance & Accounting* section of the Activity 16-1 Notes document. (*Hint:* Copying and pasting is allowed, but you must edit and reword your final answers.)
6. Repeat steps 3–5, this time researching information about each of the other departments listed below. (For example, substitute **Research & Development** for *Finance & Accounting* and find the **About Research & Development** link.) Take notes on the mission-critical activities performed by each of these departments:
   - Research & Development
   - Corporate Communications
   - Marketing, Sales, & Support
   - Information Technology
   - Legal Services
   - Human Resources & Management
7. In your notes, compare the importance of each of the seven mission-critical departments you have studied by answering the following questions:
   a. Which department is most important to the profitability of this company? Rank this department with **#1**.
   b. Which department is least important to the financial success of the company? Rank this department with **#7**.

c. Where would you rank the remaining five departments? Rank each department in order of importance to the company's bottom-line financial profits.

8. Save your copy of this file as ***My Activity 16-1 Notes*** in your DigiTools ***Chapter 16*** solutions folder.

CAREER PATH CHOICES

Companies, schools, and government agencies post jobs and job descriptions on their online websites. To find the jobs, visit the organization's Web page and look for a link that says *Employment Opportunities*, *Career Opportunities*, *Jobs*, or something similar. For example, Google has a link called *Jobs at Google*, while Microsoft's link is simply *Careers*.

In the next activity, you will investigate jobs that are currently being offered by Corporate View in its fast-growing TeleView division. With luck, the company will have a promising job opportunity in your career path.

Activity 16-2 INVESTIGATE A CAREER PATH



FIGURE 16-3 TeleView Departments with Job Openings

1. If necessary, open the Corporate View intranet. Choose the **Human Resources & Management** link followed by the **Current Job Openings at TeleView** link. The Web page displays key departments at TeleView that currently have job openings.
2. Choose the department from the list (see Figure 16-3) that you found most interesting in Activity 16-1.

DigiTip: If you wish to change departments and job descriptions, click the **Back** button to return to the previous list and start again.

3. For each department, you will find one or more jobs. From the list, choose the job that interests you most.
4. Read the job description so you know generally what the job is about. You will need this job description in Activity 16-3.
5. Add your job description's Web page to your Favorites/Bookmarks list in your Web browser.

EXAMINING A JOB DESCRIPTION



Rob Marmion /Shutterstock.com

FIGURE 16-4 A job opening can lead to an interview—with the correct actions.

A **job description** lists the duties to be performed in a particular job. As you read the job description in Activity 16-2, you probably noticed several informative parts that are found in typical job descriptions.

- Job title
- Job environment or working conditions (including the location of employment)
- Main responsibilities or primary duties
- Education, skills, and experience required

Activity 16-3 COMPLETE A JOB DESCRIPTION ANALYSIS FORM

1. If necessary, reopen the job description you identified in Activity 16-2.
2. Open Microsoft Word, and complete the following steps:
   a. Open the data file called ***Job 1***. This is a job analysis form.
   b. Key your name, your instructor's name, and the course title in the header.
   c. Save a copy of ***Job 1*** as ***My Job 1*** in your solution files for this chapter.
3. In parts 1 and 2 of your Job 1 Analysis Form, key the Job Title and the Name of Employer (in this case, **Corporate View's TeleView** division). Also key the Department name (if known) in the INFORMATION column.
4. In part 3 of your Job 1 Analysis Form, record which career cluster you think best matches your job description. For example, *Corporate Communications: Art Director* would fit into the *Arts, Audio/Video Technology, and Communications* cluster.

   Recall that in Chapter 1, you were introduced to 16 career clusters representing tens of thousands of different job opportunities. Career clusters provide an easy way to categorize jobs. These categories can help you focus on the career paths you find most interesting and rewarding.

   Agriculture, Food, & Natural Resources
   Architecture & Construction
   Arts, A/V Technology, & Communications
   Business Management & Administration
   Education & Training
   Finance
   Government & Public Administration
   Health Science
   Hospitality & Tourism
   Human Services
   Information Technology
   Law, Public Safety, & Security
   Manufacturing
   Marketing, Sales, & Customer Support
   Science, Technology, Engineering, & Mathematics
   Transportation, Distribution, & Logistics
5. Fill out sections 4, 5, 6, 7, and 8 of the Job 1 Analysis Form as completely as you can. (*Note:* Leave the salary information blank for now. You will look up salary information in Lesson 16-3.)
6. Save your updated form, and then close the file.

LESSON 16-2 Finding Jobs

IN THIS LESSON YOU WILL:

Objectives

1. Search for jobs in the *Occupational Outlook Handbook* and complete a career analysis.
2. Search for jobs through government-sponsored and private job placement websites and complete a career analysis.
3. Search for jobs through corporate websites and complete a career analysis.
4. Search for jobs through local sources and complete a career analysis.

Key Terms

applicant
apprentices
apprenticeships
candidate
internships
interview
resumé
screening
temporary employment agency
temps

DOES THIS DESCRIPTION FIT YOU?

INSTANT MESSAGE

An interview is a two-way question-and-answer meeting between a candidate and representatives of the employers.

Corporations may receive dozens, even hundreds of applications for a job. Someone who submits an application for employment is often called a **candidate** or an **applicant**. Applications are usually accompanied by a **résumé**. A *résumé* lists the skills and qualifications a candidate has that qualifies him or her for a specific job. (You will create your résumé in Chapter 17.)

Companies must sift through many résumés and applications to filter out (or screen) applicants. **Screening** is the process of eliminating weeding out unqualified candidates and allowing the most qualified applicants to rise to the top.

If the requirements of the job match the applicant's résumé, he or she is likely to be scheduled for an **interview** and has a chance at being hired. As you review job descriptions, pay attention to the skills, education level, and experiences you will need in order to be hired in your chosen career cluster; then plan your education accordingly.



FIGURE 16-5 If a résumé matches the job description, candidates are often called for interviews.

THE *OCCUPATIONAL OUTLOOK HANDBOOK*

Many people are unaware of the choices available in the world of work. Instead of looking at all the possibilities, they settle for what they see in their own community. The Internet provides an opportunity for people to break out of their local job market to see what is going on around the country and around the world.

The *Occupational Outlook Handbook* (OOH) is a publication of the U.S. Department of Labor that contains information about jobs nationwide. The OOH describes thousands of jobs. It can be found online at www.bls.gov/ooh. Somewhere in this listing, you will likely find several careers that appeal to you.

Be on the lookout for:

- The training or education level needed for a particular job.
- The anticipated salary or earnings for a job.
- The fact that a particular job category is growing or shrinking.
- The actual tasks for a particular job.
- The working conditions for a job.

Activity 16-4 SEARCH THE OCCUPATIONAL OUTLOOK HANDBOOK ONLINE

DigiTip

Find an updated link to the OOH by visiting www.cengage.com/school/keyboarding/digitools, choosing the **Human Resources & Management** link, followed by **Placement Center Job Links**. Then choose the **Occupational Outlook Handbook: BLS** link.

1. Access the Internet, and open your browser. Access the OOH online by keying the following address in your Web browser: **www.bls.gov/ooh** or follow the instructions in the DigiTip.
2. Spend at least 15 minutes searching for interesting jobs. You can search for jobs on the OOH online in three ways, as shown in Figure 16-6, and described below:
   - **a.** Use the OOH search tool.
   - **b.** Browse the A to Z index.
   - **c.** Use the navigation link options.

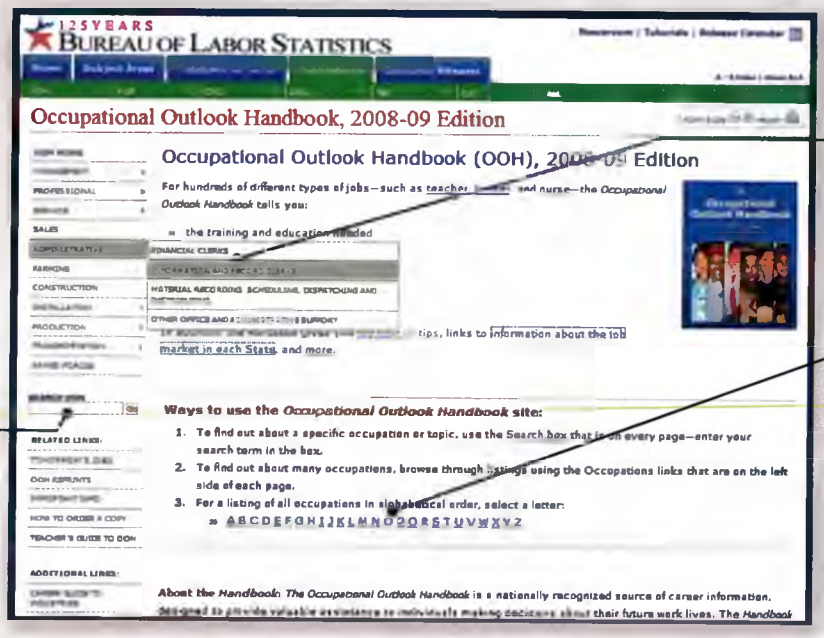


FIGURE 16-6
OOH Search Tools

3. Select one job from the OOH that interests you. Read the job description so you have a general understanding of the work involved.

4. Open Microsoft Word if necessary, and complete the following steps:
   a. Open the data file called ***Job 2***.
   b. Place your name, your instructor's name, and the course title in the header.
   c. Save a copy of the Job 2 Analysis Form in your solution files for this chapter using the name ***My Job 2***.

5. In parts 1 and 2 of your Job 2 Analysis Form, key the Job Title and the Name of Employer. Also key the Department name (if known) in the INFORMATION column.

6. In part 3 of the Job 2 Analysis Form, record which career cluster you think best matches your job description. (*Note:* If you need help recalling the career clusters, review Chapter 1 or step 4 of Activity 16-3.)

7. Fill out sections 4, 5, 6, 7, and 8 of the Job 2 Analysis Form as completely as you can. (*Note:* Leave the salary information blank for now. You will look up salary information in Lesson 16-3.)

8. Save your updated form in your solutions folder for this chapter, and then close the file.

SEARCHING FOR JOBS ONLINE



FIGURE 16-7 Department of Labor–Sponsored "CareerOneStop" Site

In some ways, searching for job opportunities has never been easier. The Net allows you to:

- Find job descriptions.
- Locate current job openings.
- Build and distribute a winning resume.
- Send applications to potential employers.
- Prepare for a job interview.
- Compare salaries.

Both government-sponsored and private job placement agencies can help job seekers find employment. For example, the U.S. Department of Labor maintains the CareerOneStop site, which lists thousands of jobs, as seen in Figure 16-7.

Branches of the U.S. military post websites to help you learn about careers in the military. State employment services also post jobs online. Most search engines, such as Bing, Yahoo!, and Google, can lead to public and private job boards. If you're looking for a job locally, these online job boards may be the place to start.

Activity 16-5 SEARCH EMPLOYMENT WEBSITES

INSTANT MESSAGE

Jobs can be found through online want ad services like Craigslist. News outlets like *The Wall Street Journal* sponsor job sites. Some local radio and TV stations list local jobs online. International jobs can also be found online through sites like workopolis.com in Canada.

1. Visit two or more job search websites. Use a search engine or the Web addresses shown below to help you find a suitable career website.
   - CareerOneStop (www.careeronestop.org)
   - America's Job Exchange (www.americasjobexchange.com)
   - CareerBuilder (www.careerbuilder.com)
   - Monster (www.monster.com)
   - Yahoo! HotJobs (http://hotjobs.yahoo.com)
   - National Association of Colleges and Employers (www.jobweb.com)
   - U.S. Army and U.S. Army Recruitment (www.goarmy.com) (Shown in Figure 16-8.)
   - U.S. Navy (www.navy.mil)
   - U.S. Air Force (www.af.mil)
   - U.S. Marine Corps (www.marines.mil)

INSTANT MESSAGE

As you continue your job search, keep an open mind. You may discover a career opportunity you hadn't even thought about that may be perfect for you.

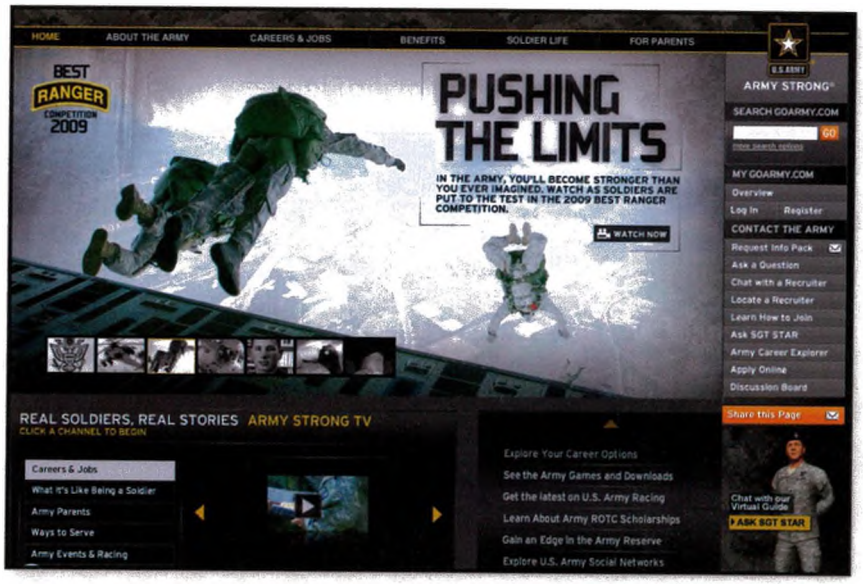


FIGURE 16-8
The U.S. Army Website

Source: www.goarmy.com

2. While visiting your job search websites, look for one job description that interests you. Read the job description so you have a general understanding of the work involved.

3. Open Microsoft Word, and complete the following steps:
   a. Open the data file called ***Job 3***.
   b. Place your name, your instructor's name, and the course title in the header.
   c. Complete parts 1 to 8 of the Job 3 Analysis Form as you did in previous activities. (*Note:* Leave the salary information blank. You will look up salary information in Lesson 16-3.)
   d. Save the completed form as ***My Job 3*** in your solution files folder for this chapter, and then close the file.

DIGITAL SNAPSHOT

Attitude, Persistence, Flexibility, and Patience

Finding a good job takes work. Tell yourself that no matter what happens, you're going to stay positive—even in the tough times. Do not allow yourself to become negative if you do not find the job you want right away.

Be patient and flexible. For most people, searching for a job takes time. Employment counselors say that it takes a month (sometimes two or three months) of searching for every $10,000 you want to earn on the job.

If you are willing to move to a different part of the country, you may increase your employment opportunities and earnings potential. Great jobs sometimes pop up in the most unlikely places, so keep looking!

JOB DESCRIPTIONS ON CORPORATE WEBSITES

Many companies list employment opportunities on their websites. For example, Google provides a link to job opportunities, as shown in Figure 16-9. Major corporations have jobs for every career cluster. In the next activity, you will locate major corporations that offer job information directly on their websites.

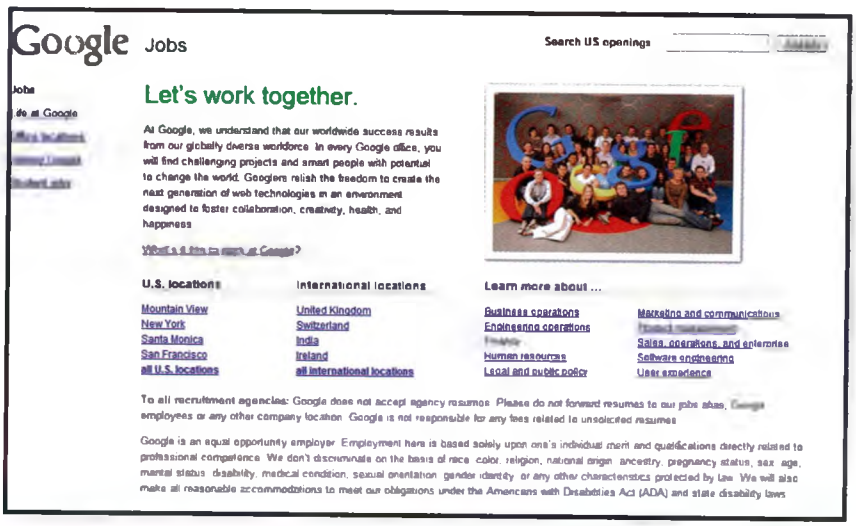


FIGURE 16-9
Job Opportunities at Google

Activity 16-6 SEARCH FOR JOBS ON CORPORATE WEBSITES

1. Choose three career clusters. For each choice, locate a major business that advertises jobs and career information on its website. For example:
   Career Cluster: **Information Technology**
   Company: **Google Corporation**
   URL: **www.google.com**

2. Visit the three websites you identified in step 1. Examine job opportunities at each site. Choose the job description for one job you really like. Read the description so you have a fairly good idea of what the job entails.

3. Open Microsoft Word, and complete the following steps:
   a. Open the data file called ***Job 4***.
   b. Place your name, your instructor's name, and the course title in the header.
   c. Complete parts 1 to 8 of the Job 4 Analysis Form as you did in previous exercises. (*Note:* Leave the salary information blank. You will look up salary information in Lesson 16-3.)
   d. Save the completed form as ***My Job 4*** in your solutions folder for this chapter, and then close the file.

HELP WANTED

INSTANT MESSAGE

Unions are responsible for negotiating salaries with companies and working for the protection of employee rights and benefits.

You can learn about job openings from a variety of sources other than the Internet. Help-wanted ads in local newspapers, flyers in storefront windows, people you know with knowledge of job openings (teachers, counselors, friends, and family), and local employment agencies are all good sources. When you are looking for a job, explore all avenues open to you. For instance:

- **School career centers and placement services**. Colleges and universities, and even some high schools, maintain lists of internships, apprenticeships and part-time and full-time jobs.
- **Professional organizations and unions** frequently list jobs in their publications, on their websites, and at their offices.
- **Employment agencies.** Government and private job placement agencies help people find jobs. Government agencies generally provide free services. Private agencies charge a fee.
- **Community agencies.** Some local nonprofit organizations provide job placement services for specific groups, such as minorities, women, young people, or other unemployed people.
- **Local employers.** Employers in your local community may be advertising jobs. Visit a local employer, and ask about employment opportunities.



Tim Boyle/Getty Images

FIGURE 16-10
Job openings come from a variety of sources.

DIGITAL SNAPSHOT

Temporary Employment, Internships, and Apprenticeships



A **temporary employment agency** is a company that hires individuals to fill short-term jobs. These jobs may last a single day or many months. Temporary employees are often called temporary workers, or **temps**. By taking temporary jobs, you gain a variety of experiences and learn whether a career path is appealing.

Internships and **apprenticeships** can also help you gain valuable experience. An internship is a program of temporary supervised work designed to give workers experience in a career. These workers are called *interns*.

Apprenticeships are designed to prepare someone for a professional-level career and generally include an entry-level salary. These workers are often called **apprentices**.

Visit your school's placement office or website, and look for new apprenticeship, internship, and temporary employment postings.

Activity 16-7 SEARCH TRADITIONAL JOB INFORMATION SOURCES

1. Use one or more of the sources of employment information listed below to locate a job description for a position that interests you.
   - School career centers and placement services
   - Professional organizations
   - Employment agencies
   - Community agencies
   - Help-wanted ads
   - Local employers
2. Obtain a copy of a job advertisement or description. Read and analyze the job information. (*Note:* For some local jobs, a job description may not be available, in which case you need to interview the potential employer to get the information you need.)
3. Open Microsoft Word, and complete the following steps:
   a. Open the data file called ***Job 5***.
   b. Place your name, your instructor's name, and the course title in the header.
   c. Complete parts 1 to 8 of the Job 5 Analysis Form as you did in previous exercises. (*Note:* Leave the salary information blank. You will look up salary information in Lesson 16-3.)
   d. Save the completed form as ***My Job 5*** in your solutions folder for this chapter, and then close the file.

LESSON 16-3 Investigating Salaries and Comparing Jobs

IN THIS LESSON YOU WILL:

Objectives

1. Learn about hourly versus annual salaries and compare salaries using online sources.
2. Compare jobs by scoring your job descriptions.

Key Terms

annual rate
counteroffer
hourly rate
offer
overtime
paid time off (PTO)
salaried
salary
salary package
salary range
time-and-a-half

DOES THIS SALARY FIT YOU?

INSTANT MESSAGE

Living in poverty means going without many of the necessities of life. The federal poverty line was set in 2009 at $22,050 per year for a family of four. A salary of $10 per hour puts the family well below the poverty line.

A **salary** is the money an employee receives in exchange for doing a job. Sometimes, employers choose not to list the salaries on their job descriptions. If the salary is not listed, you will need to ask how much a particular job pays.

The salary an employer agrees to pay is called an **offer**. You need to ask yourself if doing a job is worth the salary being offered. To help you make that decision, you need to compare an employer's salary offer with similar jobs in your part of the country. Fortunately, you can compare salaries on the Internet relatively easily, through sources such as the U.S. Department of Labor.

When you think a salary is not appropriate, you can make a **counteroffer**. A counteroffer is your alternative proposal for a salary with which you would be satisfied.

Employers establish a yearly or an hourly **salary range** for each job. The range is the difference between an initial *low* salary and the *highest* possible salary that a company will pay for a job. For example, for a Technical Writer position at Corporate View, the salary information may be something like this:

Annual Salary Range: $38,000–$52,000 per year depending on qualifications

or

Hourly Wage: $22–$42 per hour depending on qualifications

Salaries are listed by an **hourly rate** or an **annual rate** of pay. An annual salary is payment for the year. It does not count the individual hours worked. The hourly rate is the amount paid for each hour worked.

Often, a worker starts at the low end of the salary range and receives higher pay as he or she gains experience or additional training. Offering a competitive salary helps companies attract the most qualified applicants. Salaries for the same job will vary from state to state and city to city depending on the cost of living and the job market in the area.



iStockphoto.com/Nicholas Monu

FIGURE 16-11 A job offer includes a salary that you accept when you agree to take the job.

DIGITAL SNAPSHOT

Salary and Benefit Options

When calculating a total salary, you have many things to consider. Does one job offer paid holidays, or **paid time off (PTO)**, while the other job doesn't? Does one job offer benefits, such as health care or matching investments into a retirement account? (Benefits will be discussed in more detail in Chapter 17.)

All of these "extras" constitute what is called a **salary package**, or a combination of *salary* plus *benefits*. The total salary package provides a better picture of the actual worth of a job than simply the base salary.

Employees who receive an annual salary are often called **salaried** employees. Normally, they are not paid for **overtime**, but they may receive bonuses. Hourly employees can work overtime, or hours in addition to their normal weekly work. Many of these hours receive overtime pay, often 50% more than the normal rate, or "**time-and-a-half**."

Activity 16-8 COMPARE SALARIES ONLINE

INSTANT MESSAGE

If you do not find the name or job title you are looking for, look for similar jobs. For example, Senior Corporate Securities Counsel is comparable to a Senior (Sr) Legal Compliance Officer.

1. Start Word and open the ***My Job 1***, ***My Job 2***, ***My Job 3***, ***My Job 4***, and ***My Job 5*** files from your solutions folder.
2. Open your Web browser, and search for sites such as U.S. Department of Labor, Bureau of Labor Statistics National Compensation Survey – Wages (see www.bls.gov/ocs and www.bls.gov/ncs/ocs/compub.htm), Salary.com (www.salary.com), Indeed.com's salary tool (www.indeed.com/salary), and PayScale (www.payscale.com) that compare salaries for various jobs.

DigiTip

You may be able to find salary information by keying the job title and *salary* as search terms into Google, Yahoo!, or Bing. For example, key **marketing director salary** and see what appears.

3. Working with your team, help each other research average or typical salaries for each of the five jobs you are researching.
   a. You may find an average or typical salary right away. However, if you find a salary range, compute an average by adding the high and low salaries together and dividing by 2.
   b. If you find an hourly salary, key that for now.
4. In part 9 of your ***My Job 1***, ***2***, ***3***, ***4***, and ***5*** analysis forms, record the salaries you have researched, and resave your updated analysis forms.

COMPARE POTENTIAL JOBS

When looking for a job, you may have to analyze dozens of job descriptions. Use a scoring system to help you identify those jobs that interest you and for which you are prepared. A scoring system will help you compare one job description with another. A scoring system can also help you screen jobs that do not make sense for you.

Activity 16-9 SCORE YOUR JOB DESCRIPTIONS

1. If necessary, start Word and open your ***My Job 1***, ***2***, ***3***, ***4***, and ***5*** files. Score each job description in the last column using the scoring guide in Table 16-2.

Category	Scoring Guide
4. Job Environment	*Would you be comfortable working in this job environment under these working conditions? Rank from 0–10.* 10 points = very comfortable 0 points = not at all comfortable
5. Responsibilities	*Would you be comfortable meeting all of the duties, assignments, or responsibilities of this job? Would you like the nature of this work as described in this job description?* 10 points = like the work very much 0 points = like the work not at all
6. Education	*How close are you to meeting the educational requirements of this position?* 10 points = fully meet or exceed the requirements 5 points = nearly meet the requirements 0 points = do not meet the requirements
7. Skills or Training	*How close are you to having the skills or training required for this job?* 10 points = fully meet or exceed the requirements 5 points = nearly meet the requirements 0 points = do not meet the requirements
8. Experience	*How close are you to meeting the years of experience requirement?* 10 points = meet or exceed the requirement 5 points = nearly meet the requirement 0 points = do not meet the requirement
9. Salary Range	*Would you be happy with the salary or hourly wage that is being offered for this job?* 10 points = very happy with salary 5 points = moderately happy with salary 0 points = salary unacceptable

TABLE 16-2 Job Description Scoring Guide

2. Add the scores together, and key the total in the *Total Score* cell of each form. Resave the forms using the same names (***My Job 1***, ***My Job 2***, ***My Job 3***, ***My Job 4***, and ***My Job 5***), and then close the files.

Activity 16-10 SCORING SUMMARY

1. Using Microsoft Word, open the ***Scoring Summary for Job Analysis*** data file.
2. Key each job title and your score for each job.
3. Rank the jobs according to the scores. Then reorder each job from highest to lowest score by cutting and pasting or by sorting.
4. Save the file in your solutions folder for this chapter as ***My Scoring Summary for Job Analysis***, and then close the file.

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 16-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools*.

Building Up: Your Math Skills

Exercise 16-2 WHICH IS BEST: AN HOURLY OR ANNUAL SALARY?

If one employer offers $10 per hour and another offers $20,000 per year, which offer is better?

Salaries are listed by an hourly rate or annual rate of pay. The annual rate is the total money earned for an entire year. To compare salaries fairly, you must convert hourly wages to yearly salaries.

Conversions can be made easily using a spreadsheet like Excel. For example, as shown in Figure 16-12, if a cashier's job pays an hourly rate of $10 and the workday is 8 hours each day 5 days per week for 48 weeks, the cashier will make $19,200. In that case, the annual salary is better. However, if the same cashier works 51 weeks each year, the hourly offer will be better. If a cashier goes to part-time work, at say 33 hours per week, the annual wage will change even further.

E5 =B5*C5*D5

	A	B	C	D	E
1	Job	Hourly Rate	Hours Per Week	Weeks Per Year	Annual Salary
3	Cashier	$ 10.00	40	48	$ 19,200.00
4	Cashier	$ 10.00	40	51	$ 20,400.00
5	Cashier	$ 10.00	33	50	$ 16,500.00

Sheet1 Sheet2 Sheet3

FIGURE 16-12
Convert Hourly to Annual Pay Rate

1. Open an online spreadsheet found in the cloud.
2. Create a worksheet that allows you to convert hourly rates of pay to yearly salaries for Jobs A, B, and C described in Table 16-3.

Job A	Commercial Artist	$24.95 per hour for 48 weeks, 8 hours per day, 5 days a week
Job B	Certified Teacher Assistant (Assisting English as a Second Language students)	$17 an hour, 20 hours per week, 36 weeks
Job C	Retail Stocker (Placing products on store shelves)	$9.25 per hour, 38 hours per week, 50 weeks. The stocker works 8 hours per day. The job also offers two full 8-hour days at the holiday pay rate (calculated at $9.25 per hour).

TABLE 16-3
Pay Rates

3. Save the file as ***Exercise 16-2***. Use the spreadsheet to complete step 4.
4. In the job analysis forms you completed earlier in this chapter, you may have found and recorded some hourly wages. Convert these hourly wages, changing them to annual salaries based on 50 weeks of work at 40 hours per week. Do this for any hourly wages recorded in your ***My Job 1***, ***2***, ***3***, ***4***, and ***5*** analysis forms.
5. Make the changes, and resave your files with the yearly salary numbers.

Building Up: Your Language Arts Skills

Exercise 16-3 FROM THE EDITOR'S DESK: AMBIGUOUS PRONOUN REFERENCES

1. Open your browser software. Use the bookmark on your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications > From the Editor's Desk**.)
2. Choose the **Sentence Structure** link. Under *Sentence Structure*, choose the **Ambiguous Pronoun References** link. Copy and paste the questions to a word processing document and answer the questions. (Read any additional information provided on the Web page, and follow the directions for completing the practice exercise.)
3. Check your answers by comparing them with the answers on the bottom of the intranet page.
4. Save your work in your solutions folder as ***Exercise 16-3 Ambiguous Pronoun References***.

Career Clusters



Human Services

Some of the most rewarding careers involve helping people. Workers in the Human Services career cluster assist people of all ages, from preschoolers to the elderly. Some careers involve helping individuals with physical or mental handicaps. If you like helping people, this may be the career cluster for you.

Although the pay is often below the salaries found in other career clusters, the jobs can be personally rewarding. Well-educated professionals in this career cluster can make a good living. There are many areas of human service to consider:

- Helping people overcome addiction
- Providing psychological care for the mentally ill
- Assisting the handicapped with physical rehabilitation exercises
- Developing after-school programs for teenagers
- Providing immunizations
- Assisting the aged

Review the list of possible career alternatives in the Human Services cluster shown in Table 16-4.

Position	Yearly Salary	Position	Yearly Salary
Home Healthcare Aide	$21,510	Psychiatric Aide	$23,760
Occupational Therapist	$35,130	Physical Therapist	$60,180
Social Worker: Elementary and Secondary Schools	$44,300	Funeral Director	$48,410
Social Worker: Individual and Family Services	$30,680	Preschool Manager	$36,988
Public Health Care Social Worker	$40,080	Social Worker: Local Government	$35,780
Social and Community Services Manager	$30,680	Social Worker: Nursing Care Facilities	$31,580
Health and Safety Specialist	$42,750	Environmental Engineer	$53,210
Occupational Therapist Aid	$23,150	Healthcare Translator	$33,800

TABLE 16-4
Career Cluster: Human Services

Exercise 16-4 THE HUMAN SERVICES COMMUNITY



1. Work with a team to find four organizations in your county, state, or province that provide human services that needy people should know about. You may find the following organizations:
   Local health department
   Environmental health department
   Health promotion groups
   Substance abuse facilities
   Public health nursing authority
   Homeless shelters
   Charities involved with human services, such as the American Red Cross
   Local food banks or soup kitchens
   Faith-based service groups



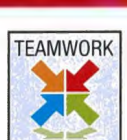
To identify human services organizations, view the government section of your local phone book or search the U.S. Department of Health and Human Services website (www.hhs.gov) for links to human services organizations.

2. Visit each organization, call each organization, or look at each organization's website to learn the main purpose of the organization. Find out whether the organization is private or is part of a government agency. List the main services that each of the four organizations provides.
3. Create a PowerPoint slide show to present the information you found about human services organizations in your community. Include a title slide, one or two slides that describe the Human Services cluster in general, and several slides for each of the organizations your team researched.
4. Save the report as ***My Exercise 16-4*** in your ***Chapter 16*** folder.
5. Deliver your presentation to the class or to another team.
6. Discuss with your team the possibility of volunteering to help one of these human services organizations as part of a community service project. Volunteer some of your time to help out!

21st-Century Skills

Critical Thinking and Problem Solving

Exercise 16-5 DISCUSS DEPARTMENT PROFITABILITY



In Activity 16-1, you ranked seven departments from #1 to #7 based on the following questions:

a. Which department is most important to the profitability of this company? Rank this department with **#1**.
b. Which department is least important to the financial success of the company? Rank this department with **#7**.
c. Where would you rank the remaining five departments? Rank each department in order of importance to the company's bottom-line financial profits.

Undoubtedly, each member of your team has ranked these departments differently. Huddle up with your team and:

1. Discuss why you ranked these departments differently. Have each team member explain his or her ranking and why he or she believes that some departments, when compared to others, contribute more to the bottom-line financial profits of company. There are no wrong or right answers; each opinion has merit and should be considered.

2. As a team, evaluate each department. Are any of the departments unnecessary? Can any of them be eliminated? Why or why not?

3. Have one member of your team give a summary of your team's discussion to the class. Make sure that person explains your team's thoughts, evaluation, and ideas for each department.

Initiative and Self-Direction

FINDING THE JOB YOU WANT

Always be mentally prepared for the possibility that you may not be selected for a specific job. Do not let a rejection upset you! Instead, use the job search and interview experiences to help you prepare for your next interview. Think about what you did right and what you can do better to improve your chances the next time. You can improve your chances by doing the following:

- Keep applying! Remember, it may take a dozen or more interviews to get a job you really want.
- Keep practicing your interviewing skills.
- Keep reviewing, rewriting, and targeting your resume to emphasize the skills needed in the job for which you are applying. (See Chapter 17 for more about resume writing.)
- Keep improving your employability skills. Take classes, study, and take advantage of government retraining programs for new job seekers.

Rarely does anyone fit an employer's job description perfectly. If you do have gaps in your preparation, what can you do to eliminate them or minimize their effect? Do you need to take some classes or begin a training program? Simply participating in a training program may give you the edge you need.

Federal, state, and local governments often provide assistance for those looking for work. They sometimes provide financial support and tax breaks for the expenses people incur while improving their job skills. To learn about training, scholarships, and assistance packages, talk with personnel at local Job Service and unemployment offices about programs that may apply to you.

Exercise 16-6 RESEARCH LOCAL EMPLOYMENT TRENDS

Use your online "in the cloud" skills to discover current employment trends in your state.

1. To learn the employment trends in your part of the country, visit the website of the Bureau of Labor Statistics (www.bls.gov). (See Figure 16-13 on the following page.) What trends has the BLS identified for your community?

2. Find other sites that track employment trends. What do these sites say? Do they support or differ from the findings of the BLS?

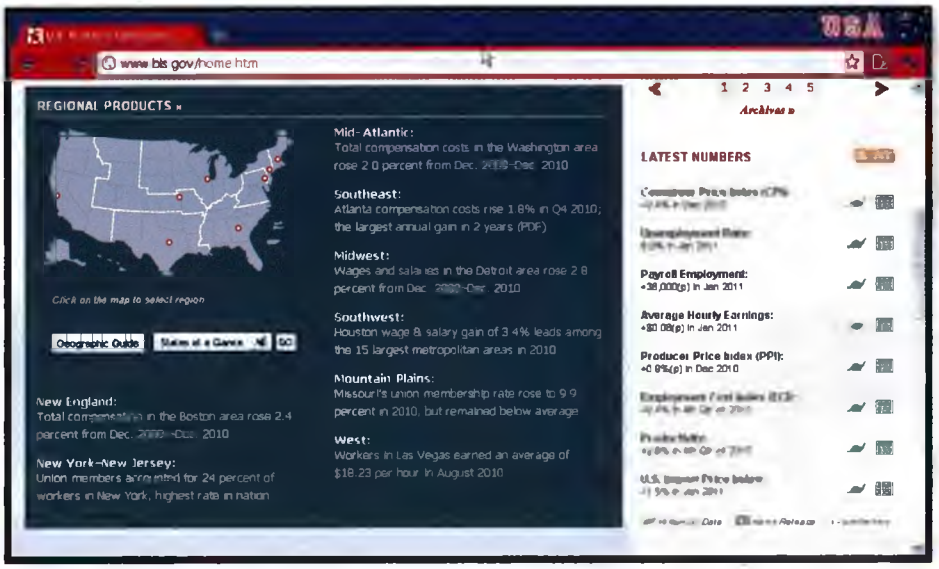


FIGURE 16-13 Regional Occupation Information

3. Prepare a written report of 1.5 pages summarizing your findings for the employment opportunities in your community. Format this document according to your instructor's directions.
4. Save the report as ***My Exercise 16-6*** in your ***Chapter 16*** folder.

Exercise 16-7 ENHANCE YOUR QUALIFICATIONS

Take some time to think about how you can improve your qualifications for employment.

1. Start a new blank document.
2. Think of a job you would like to have in the future. Key the name of the job and the career cluster into which it falls.
3. List possible courses, training, schools, and self-improvement programs that may help you obtain this job.
4. List the skills you need to learn that relate specifically to this job.
5. List general work skills, like organization and problem solving, that you need to improve as you prepare for a job.
6. Save the document as ***My Exercise 16-7*** in the ***Chapter 16*** solutions folder.

Chapter 17

Résumé Building, Applying, and Interviewing Skills

Lesson 17-1 Previewing and Preparing Job Search Documents
Lesson 17-2 Creating a Chronological Résumé and Application Correspondence, and Applying Online
Lesson 17-3 Preparing Portfolios, Recommendations, and Presentations
Lesson 17-4 Preparing for Impressive Job Interviews

OPENING DOORWAYS TO OPPORTUNITY



StockLite/Shutterstock.com

FIGURE 17-1 Job openings are a doorway to opportunities.

Job openings are doorways to opportunity. (See Figure 17-1.) They open for a short time and close as jobs are filled.

To get your foot in the door, you must be ready to compete. You can compete for a job with the following:

- A winning résumé
- A clear application
- Several rousing references
- A clever career Facebook or Web page
- A clear business card
- A polished letter of application

Even the greeting on your cell phone will help you stand out from the crowd. In a competitive marketplace, you need to think of everything you can do to gain an edge, as you can tell from the list above.

LESSON 17-1 Previewing and Preparing Job Search Documents

IN THIS LESSON YOU WILL:

Objectives

1. Preview the documents needed for employment.
2. Collect personal employment data.
3. Plan your career communications system, including e-mail address, URL to personal career Web page, and phone numbers.

Key Terms

rate structure
reverse chronological order
reverse order

CREATING A WINNING CAREER STRATEGY

To get a great job, you need to be prepared to act quickly! As soon as you hear about a job opening, you may have only a few minutes or a few days to apply and submit your resume. In other words, you must have all the information you need at your fingertips so you can "strike while the iron is hot." This lesson will help you do just that!

Your goal is to get the job! To do so, you must prove you have the skills that an employer wants and needs. For this reason, a resume is a vital communications tool for you as a job seeker. An effective resume communicates to an employer the match between your skills and the requirements of the job. Figure 17-2 shows an example of a clear and effective resume.

Activity 17-1 PREVIEW JOB SEARCH DOCUMENTS

INSTANT MESSAGE

Online applications are usually input forms for employment management databases. The rectangles are database fields. Databases can manage millions of applications at a time.

1. Review the sample resume in Figure 17-2 on page 545. Identify these parts:
   - **a.** Contact Information
     - Name
     - Address
     - Phone Number
     - E-mail Address
     - Personal Web Address
   - **b.** Career Objective
   - **c.** Related Experience
   - **d.** Educational Experience
   - **e.** Work Experience
   - **f.** Achievements
   - **g.** References (sometimes listed as "Available upon request.")
2. Review a typical online application:
   - **a.** Open your browser, and access the Corporate View intranet by visiting **www.cengage.com/school/keyboarding/digitools**. (Or open a copy of the Corporate View intranet from your local school server as directed by your instructor.)
   - **b.** Choose **Human Resources & Management**, followed by **Corporate View Employment Application Form**.
   - **c.** Scan the form from top to bottom. As you read, ask yourself whether you have the information needed to answer each question and to fill in each field?
3. A letter of application is a formal document in which you introduce yourself and ask that you be considered for a job. Examine Maria's letter of application on page 555. (See Figure 17-8.) Identify the following parts:
   - Recipient's name and title
   - Company name
   - Street address, city, state, and Zip Code
   - Enclosures

4. Read an online personal employment Web page. Go to the Corporate View Intranet at **www.cengage.com/school/keyboarding/digitools**, and click **Regular Features**, **Employee Contacts**, followed by Maria Bravo's professional page link (**Bravo, Maria**).

5. Read and review Maria Bravo's personal Web page to gain a basic understanding of what she likes to do and how she presents herself.



Ethics

Résumé Integrity

Due to widespread misrepresentation on applications and résumés, companies have become increasingly skeptical, and many double-check to make sure candidates are not lying. Exaggerating on your application or résumé is wrong. It leads an employer to believe you are something you are not. It may get you into a job or situation that you are not adequately prepared for, and you will always worry that someone will learn the truth one day.

It is to your advantage to be truthful in your résumé, even if many people are not. Employers appreciate honesty above everything else. If your employer finds out that you have given false information, you may be dismissed from the job. Recently, top executives at major corporations have been caught and dismissed for lying on their résumés. A former CEO of a chain of consumer electronics stores said he received degrees in theology and psychology from a private California college. The *Fort Worth Star-Telegram* investigated. The college reported to the paper that the CEO completed only two semesters and did not graduate from the school. The CEO, who had worked for the company for over ten years, resigned. (*Source*: "RadioShack CEO Quits Over Items on Résumé," Stephen Quinn, Associated Press, reported in *USA Today*, page 3A, Tuesday, February 21, 2006.)

When writing your résumé and filling out your job application, be honest.

DIGITAL SNAPSHOTS

Résumé Myths

There are four common myths about resumes. Do not let these myths cause you to write an ineffective résumé.

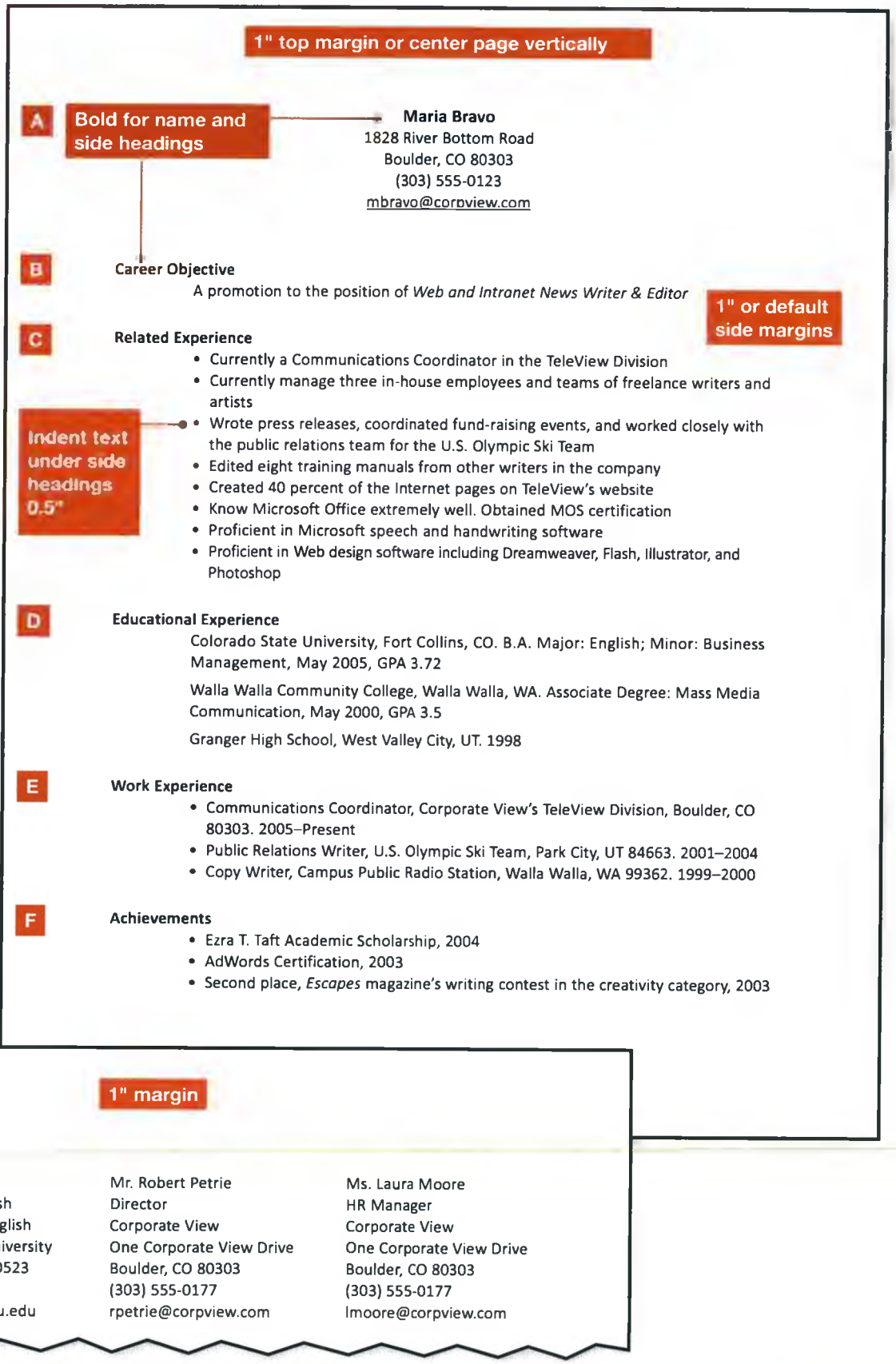
True/False? An effective resume lands you the job you want.
False. An effective resume gets your foot in the door.

True/False? An effective resume lists all your qualifications and skills.
False. An effective resume highlights those skills and abilities that best match the needs of the employer as listed in the job description.

True/False? A resume will be thoroughly read.
False. If you are lucky, a resume will be glanced at.

True/False? An effective resume provides a lot of information.
False. An effective resume has enough data to pique your reader's interest.

FIGURE 17-2
Maria's Resumé



DIGITAL SNAPSHOTS

Earnings by Degree

A generation ago it was common for employees to work for a single company for their entire career. This is rare today. You will probably work for a dozen or more employers. This means that getting a good education is more important than ever before.

Make no mistake, education pays. Generally, the more education you have, the higher your earnings potential will be. For example, look at the lifetime earnings data in Table 17-1.

It is important that you look at the educational qualifications required for the career path you have chosen for yourself. For example, there is no chance you will ever be a brain surgeon with a high school diploma. The best advice is:

- Pick your career path.
- Plan your education accordingly.
- Stay in school, moving forward with enthusiasm toward your career goals!

Doctoral Degree (Ph.D. level)	$2,580,000
Master's Degree (M.A. or M.S. level)	$1,970,000
Bachelor's Degree (B.S. or B.A. level)	$1,660,000
Associate Degree	$1,240,000
Some College-Level Training	$1,130,000
High School Diploma	$1,000,000
Some High School Training	$710,000

(Source: *Education Pays 2010*, College Board, 2010, trends.collegeboard.org/education_pays/report_findings/indicator/Lifetime_Earnings.)

TABLE 17-1 Lifetime Earnings by Degree

COMMIT YOUR EMPLOYMENT DATA TO WRITING

INSTANT MESSAGE

Through the working years of your life, as you change jobs, accomplish new things, or make new contacts, update your career data.

You can list many experiences from your life (education, training, and activities) on your resume. Make a record of such experiences. Get this information down in writing so you don't forget anything and can look up the details quickly as you prepare your resume. This is the *Research & Draft* phase of preparing your job search document. Research your life, and make a record of your activities, skills, and qualifications.

A personal *career data file* is a written self-assessment of your interests, skills, work-related experience, and other job qualifications. The file includes the categories of information seen in Table 17-2. As you compile your career data file, whether you know it or not, you are creating a first draft of your job search documents. Having a complete career data file will make writing these documents much easier. All of this information must be 100 percent accurate.

TABLE 17-2 Career Data File: Information Needed for a Resume

A: Career Objectives and Interests	Examine what you want from a career.
B: Career-Related Experience and Abilities	Determine the personal qualities, experiences, and skills you have that would make you a good employee.
C: Educational Experience	List any schools you have attended and special training classes you have taken. Think of all your classes as potential items to include on your resume.

TABLE 17-2 continued

D: Work Experience	Before you focus on a specific career, you will probably work at a number of other jobs. These jobs will pay the bills while you are in school and will provide valuable experience that you can list on your resume. List any jobs you have had, including volunteer work.
E: Achievements	List any special awards or recognitions you have received.
F: References and Contacts	Create a list of contacts that can help you obtain a job, advance your career, and expand your career opportunities.
G: Personal Contact Information	Make sure you have a business/career telephone number, e-mail address, mailing address, and professional website or Facebook-style page.

Activity 17-2 MATCH QUALIFICATIONS TO NEEDS

1. Start your personal career data file. Open the data file ***Career Data*** with Microsoft Word. Save this file as ***My Career Data*** in your solutions folder for this chapter.
2. Start with part *A: Career Objectives and Interests*. Answer each of the nine questions thoroughly in writing, from describing your ideal job to providing a summary of your career goals and objectives.
3. Continue on to part *B: Career-Related Experience and Abilities*. List your accomplishments, skills, and personal qualities as instructed.
4. Complete the *C: Educational Experience* portion of your career data file. Organize each school in **reverse order**, that is, backwards—with the most recent training experience or school listed first and the oldest school or training experience listed last.
5. Complete the *D: Work Experience* part of your career data file. Record the information for each employer as completely as you can. After you have completed your list, organize it in **reverse chronological order**, with the most recent job first.
6. Complete the *E: Achievements* section of your career data file. List all of your awards or achievements no matter how minor or unimportant you think they may be.
7. Many good job leads come from people you know—friends, family, acquaintances, and counselors. These people are a rich source of job-related information and referrals. In part *F: References and Contacts*, list anyone you think you may want to use as a reference. You may not use them all, but having a complete list can be helpful.
8. Leave part *G. Personal Contact Information* blank for now. You will complete that section in the next activity.
9. Resave your career data file.

INSTANT MESSAGE

Consider your *References and Contacts* section as a running list. Add names to it later as you think of them.

CREATE A PROFESSIONAL E-MAIL ADDRESS

You should list an e-mail address in your resume. E-mail connects the working world, and you need to be connected, too. Having an e-mail account—one you can check



© Idealink Photography/Alamy

FIGURE 17-3 Check your e-mail frequently for messages related to your job search.

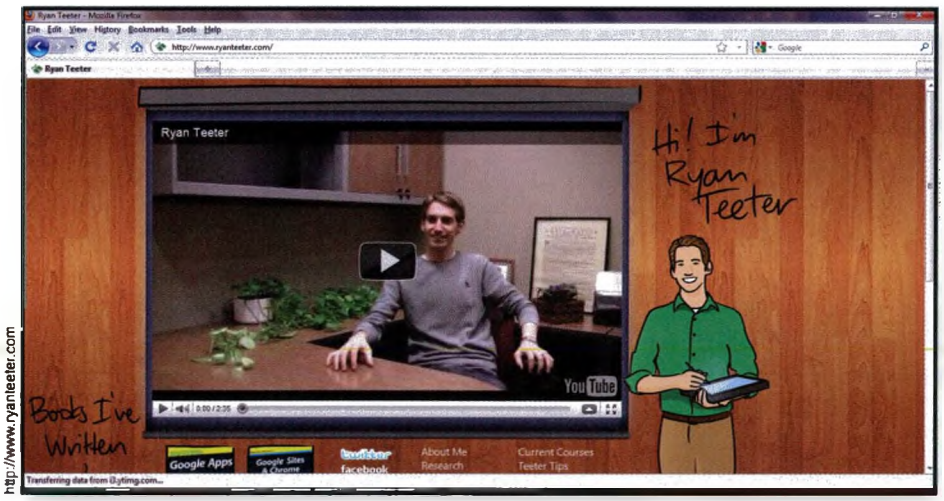
anytime from anywhere in the world—is important. You may be on vacation when a message arrives notifying you of an important job interview. You don't want to miss it. (See Figure 17-3.)

You can choose to sign up for free e-mail from the dozens of free e-mail service providers on the Web, such as Google's Gmail and Yahoo. When creating a new career-oriented e-mail account, choose a professional-sounding name. Addresses like spoiledbrat@corpview.com and iamlazy@corpview.com, for example, while fun among friends, are not good choices to use for prospective employers. Use your name or invent a clever career-oriented e-mail address that potential employers can use to contact you.

FACEBOOK OR WEB PAGE

For many of today's high-tech jobs, it is important that you post your personal career-oriented Web page. The site can display your qualifications and skills and an online resume. These Web pages can be very creative. You can use graphics, text, and even multimedia to demonstrate your skills and abilities for particular careers.

Tools like Facebook (www.facebook.com) and MySpace (www.myspace.com) may be used for this purpose. However, there is a downside to social networking sites like these: Your friends may post inappropriate or embarrassing remarks or images. You cannot allow this to happen when you are looking for a job and potential employers may be visiting your personal site that is doubling as a professional site.



http://www.ryanteeter.com

FIGURE 17-4 Ryan created this page to promote his skills as a top-level Google software consultant.

It is far better to create a separate online page for professional networking use only, keeping your normal social networking pages for personal use. One networking alternative is LinkedIn (www.linkedin.com), which is a professional Facebook or MySpace-type site. Another option is to create a website for your professional needs. You may have Web addresses available to you through your Internet service provider (ISP) that are included in your monthly fee. Or you can choose to use an application like Google Sites, which is free. (Free is always nice!) If you have the time and are able, designing and creating a site just for professional and career purposes can make a positive impression. Figure 17-4 shows what Ryan, a top-rated Google software consultant, created for his professional website.

YOUR CELL PHONE MESSAGE



Stephen Coburn/Shutterstock.com

FIGURE 17-5 Stay connected using a cell phone.

Prospective employers are likely to contact you for an interview over the phone. You will need a cell phone number at which an employer can easily reach you. Your phone should also have text messaging, which is used more and more in business situations. If you can afford a smart phone, so much the better, but this is not necessary.

Mobile phone and text messaging services can be expensive. Find a phone plan that fits your budget. A summary of a company's overall charges—local services, long-distance services, roaming charges, texting, call waiting, and so on—is called a **rate structure**. Analyze the entire rate structure before you commit to a long-term plan; otherwise, you may spend more money than you had planned.

If you are not available to take a call, the last thing you want on your voice mail message is something silly and embarrassing. As you record your message, remember to use a professional-sounding voice or have someone else record the message for you.

Activity 17-3 RESEARCH E-MAIL, PHONE, AND WEB HOSTING SERVICES

1. In a team, research e-mail, phone, and Web page hosting options that will fit your budget and your needs as a job seeker. Research together but record your work separately.
2. Open your data file ***My Career Data*** with Microsoft Word from your ***Chapter 17*** folder. Jump to part **G: Personal Contact Information**.
3. In the space provided in part *G: Personal Contact Information*, list five appropriate e-mail names that you can list on your résumé. Keep the names simple and professional, such as Daniel.Jones@corpview.com. Use the **@corpview.com** extension for all five addresses.
4. Start your browser, and access the Internet. Search the Web, looking for e-mail providers. Find three e-mail providers, at least one of which must offer free or very low-cost accounts. List the three providers in the space provided in part *G: Personal Contact Information*.
5. Search the Web for three personal/professional Web hosting or social networking solutions that will allow you to post your résumé and your Web content online. List each one in the space provided.
6. Search the Web for three mobile phone service providers. Compare their rate structures for everything, including long distance, minutes, and text messages. Record this data for all three providers in part *G: Personal Contact Information*.

INSTANT MESSAGE

You may want to keep your contact information confidential. If so, make up the contact information for this assignment.

7. In the space provided in part *G: Personal Contact Information*, write a short, polite voice-mail message that you can use on your phone. This message should project a professional image to a prospective employer.

8. Key your personal contact information in the space provided in part *G: Personal Contact Information*. You will need to provide the following information to any employer:
Professional Phone Number:
E-mail Address:
Professional Mailing Address:
Professional Web or Professional Networking Page:

LESSON 17-2 Creating a Chronological Résumé and Application Correspondence and Applying Online

IN THIS LESSON YOU WILL:

Objectives

1. Learn the components of a chronological résumé.
2. Choose a target job description for which you will develop a resume.
3. Write a chronological résumé.
4. Review a letter of application and application correspondence and then prepare your own.
5. Convert your résumé and letter of application to a format appropriate for online input and then complete an online application.

Key Term

chronological résumé

BUILDING YOUR RÉSUMÉ

A **chronological résumé** lists your work experience, education, skills, and achievements in order by date from the most recent to the oldest entry. This format is sometimes called a *traditional résumé* because it has been around for quite some time and is a standard and acceptable format.

Glance again at the sample résumé in Figure 17-2 on page 545. As you can see, this typical chronological résumé has seven parts:

1. Contact information
2. Career objective
3. Related experience
4. Education
5. Work experience
6. Achievements
7. References (typically not included on the résumé but placed on a separate page and made available upon request)

TARGET YOUR RÉSUMÉ TO YOUR AUDIENCE



Sashkin/Shutterstock.com

FIGURE 17-6 Keep your résumé on target.

You have already collected most of the information you will need for your résumé in your career data file. Having a copy of it open as you write will make it easier for you to move quickly through the résumé writing process.

When writing résumés, it helps to have a job description in front of you. A job description can give you insight into what your audience (your prospective employer) is looking for. A target job description will help guide your writing. After all, every job for which you apply will have specific tasks. You need to address those specifics in your résumé. You want to put your best foot forward and target your résumé toward getting that specific job! Do not fall into the trap of using the same résumé for all job applications.

In the next activities, you will get your résumé ready for action. But first, read more about résumé writing in *Digital Snapshots: Resumé Writing.*

DIGITAL SNAPSHOTS

Résumé Writing

The purpose of your résumé is to highlight your skills and create interest so you will obtain an interview. This needs to be done in one page. This is where you must focus on *readability*, *style*, and *personality*. Consider using short, snappy, and specific sentences and phrases. Describe your skills and experience using concrete rather than many words. For example, it is better to say "Proficient in Microsoft Word" than "I enjoy working with software." "Skilled with Web design software" is preferable to "I like creating Web pages, and I am pretty good at it." "Prompt and hard-working" is more incisive than "I generally arrive on time, and I like to work hard on projects I find interesting."

Mechanics are crucial. The importance of *proofing* and *accuracy* cannot be overstated. Check the document carefully, correcting it until there are no typographical errors, mistakes, misspellings, or grammatical errors. Your digital communication skills are on display. Mechanical errors look unprofessional and may give the impression that you are careless.


© VISUM Foto GmbH/Alamy

DIGITAL SNAPSHOT 17.1 Keep your resume concise.

Do not abbreviate a term unless the abbreviation is a common one. For instance, IBM is the well-known acronym for International Business Machines and B.S. and BS are understood to mean Bachelor of Science degree. However, FBLA is a term that some people would not understand. You should use the full term Future Business Leaders of America rather than the acronym.

Activity 17-4 WRITE YOUR PERSONAL RÉSUMÉ

1. Choose and open one of the job descriptions you analyzed in your ***My Job 1, My Job 2, My Job 3, My Job 4***, or ***My Job 5*** file saved in your solutions folder for Chapter 16. Pick just one of these job descriptions to use as a reference as you write your résumé.
2. Open your ***My Career Data*** file from your solutions folder. Keep it open as a reference as you prepare your résumé. This should provide most of the information you need to complete your résumé.
3. Open a new blank document in Word. Refer to Figure 17-2 on page 545, and format your résumé similar to it.
4. Key your contact information. (Your contact information should look like part A of Figure 17-2. Copying and pasting from your ***My Career Data*** file is okay!) Include the following:
   - Name
   - Address
   - Phone number
   - E-mail address
   - URL to your personal Web page



If you do not have an e-mail or Web page address, leave that portion blank for now.

5. Write a *Career Objective* statement in your résumé:
   a. In your résumé, key the side heading **Career Objective**.
   b. To get you thinking before you start to write, review the information in part *A: Career Objectives and Interests* in your ***My Career Data*** file.
   c. Write your objective statement similar to the one seen in Figure 17-2. Do not use a period or punctuation mark at the end of the statement.



INSTANT MESSAGE

Review the job description. Will the way you write your career objective statement impress an employer looking for someone to do this job?

6. Write the *Related Experience* section of your résumé. In your *Related Experience* section, use a single sentence for each item. Keep each statement as brief as possible. Do not use periods or punctuation marks at the end of each item.
   a. Key the side heading **Related Experience** in your résumé.
   b. Copy and paste to your résumé six to ten items from the lists you created in part *B: Career-Related Experience and Abilities* in your ***My Career Data*** file. Take the top six to ten items you think would most interest an employer looking to hire someone to do the job outlined in your chosen job description.
   c. Organize your items in a bulleted list, as seen in Figure 17-2. List the most recent and/or important experiences toward the top of the list.
7. Write the *Educational Experience* section of your résumé:
   a. Key the side heading **Educational Experience** in your résumé.
   b. Under the heading, list the last two or three schools you attended. Copy and paste to your résumé the names of the educational institutions you have attended as found in part *C: Educational Experience* in your ***My Career Data*** file.
   c. List the name of the school first; the location second; and any diploma, degree, or certificate received and the date last, as seen in Figure 17-2.
   d. List the schools in reverse chronological order, with the most recent school at the top of the list. You may also list any special training programs you have attended. Do not use a period at the end of each line.

8. Write the *Work Experience* section of your résumé:
   a. Key the side heading **Work Experience** in your résumé.
   b. Under the heading, in a bulleted list, list any jobs you have had. From part *D: Work Experience* in your ***My Career Data*** file, copy and paste the employers you intend to list in your résumé.
   c. List the jobs in reverse chronological order, with the most recent first, as seen in Figure 17-2.
   d. List the job position first, the employer second, and the date of employment third. Do not use a period at the end of each line.

DigiTip: It is perfectly acceptable to include volunteer jobs as well as paid jobs.

9. Write the *Achievements* section of your résumé:
   a. Key the side heading **Achievements** in your résumé.
   b. Copy and paste to your résumé three to five relevant awards or achievements you have received as listed in part *E: Achievements* in your ***My Career Data*** file. Pick the top three to five items you think would most interest an employer looking to hire someone to do the job outlined in your target job description.
   c. Organize your items in a bulleted list as seen in Figure 17-2. Do not use a period at the end of each line. List the most recent and/or important achievements toward the top of the list.

INSTANT MESSAGE

You should ask permission from each person listed in your *References* section before you submit their names to an employer on your resume. Even if you do not intend to include these in your résumé you should prepare them in case an interviewer asks for references.

10. Write the *References* section of your résumé: (*Note:* Résumés should typically be limited to one page. If your references run longer, they can be placed on a separate page, printed on the back, or, as is often done, made available upon request and not included in the main résumé.)
    a. To get started, review the potential references you have collected in part *F: References and Contacts* in your ***My Career Data*** file. Choose just three of your references—three people who can give employers information about your skills, abilities, education, and work experience. Pick people with different backgrounds and occupations and people who will give you the best recommendation for the job outlined in the job description.
    b. Key the side heading **References** in your résumé.
    c. Under the heading, create a three-column table to help you organize the three references you have decided to list.
    d. Copy and paste to your résumé the names of the contacts and their contact information as found in part *F* in your ***My Career Data*** file. For each reference, list the person's name, title, complete mailing address, daytime phone number, and e-mail address.

DigiTip: In Figure 17-2, the references are organized into tables to keep them orderly. After the table was created, the lines were removed to create a professional look.

11. Spell-check and proofread your résumé carefully; correct all errors.
12. Save the document as ***My Resume 1*** in your solution files for this chapter, and then close the file.
13. Print your résumé as directed by your instructor. Leave Word open for the next activity.

A LETTER (OR E-MAIL) OF APPLICATION

INSTANT MESSAGE

To be effective, your correspondence should introduce the two or three skills you have that match the job's requirements.

You may get a chance to communicate with a prospective employer and convince him or her to take a closer look at your résumé. Generally, this takes the form of a *letter of application*, also called a *cover letter.* This is sometimes sent as an e-mail message, an e-mail attachment, or an add-on to an online résumé or job application, or it can be placed in a field in an online application. Whatever format it takes, this correspondence demonstrates your communication skills. Letters of application should be one page. The same length guideline applies to e-mail and electronic forms. If you are printing and sending a hard copy of the letter, use a high-quality bond paper. Make sure the paper is at least 20-pound weight. Use a light neutral color paper that is easy to scan.

Consider your audience—a prospective employer. Your goal is to create interest so a prospective employer will read your résumé carefully. Then your résumé can do its job of selling your qualifications in more detail.

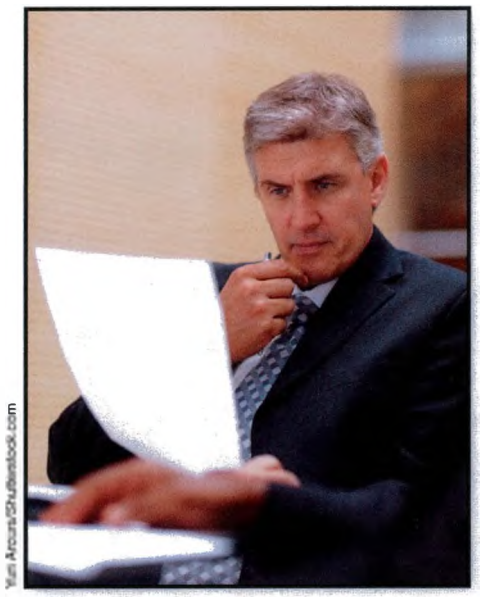


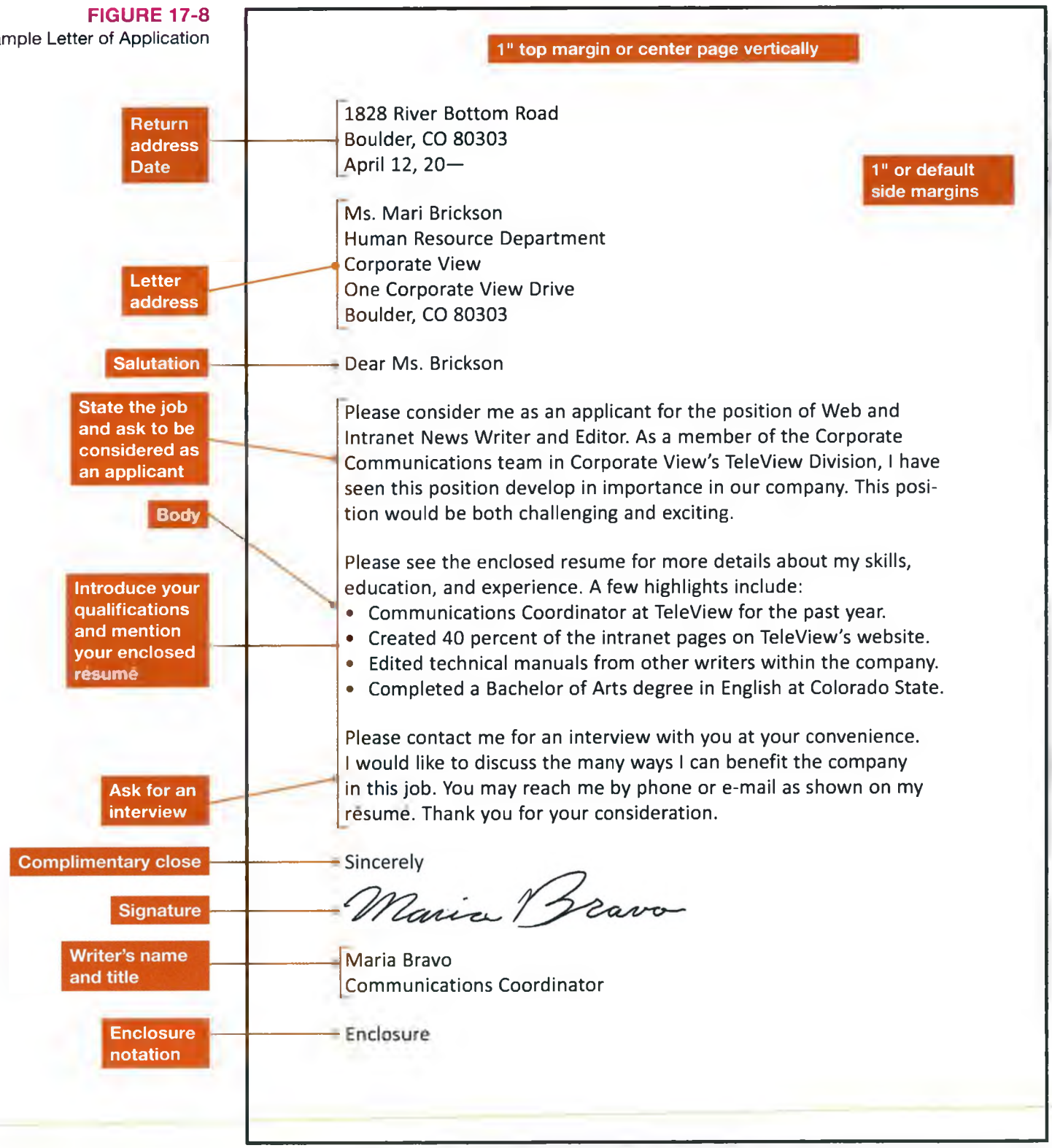
FIGURE 17-7
Write concise career correspondence.

Your correspondence is likely to be the prospective employer's first contact with you. To make a good impression, your format, style, and mechanics must be appropriate for business correspondence. For a letter, use a traditional business format, such as the block style shown in Figure 17-8.

You want the letter or e-mail to have a professional tone, personality, and style. You want it to inspire confidence and convey self-assurance, not arrogance. This is not the time to be overly assertive or cute. Follow these rules:

1. State that you want to be considered as an applicant for a particular job.
2. Introduce your strongest and most relevant qualifications for the job.
3. Invite the prospective employer to review your qualifications in more detail in your accompanying resume.
4. Ask for an interview.
5. Thank the reader for his or her time.

FIGURE 17-8
Sample Letter of Application



Activity 17-5 WRITE A LETTER OF APPLICATION

INSTANT MESSAGE

If a resume will be included with the letter, key an enclosure notation below the sender's name, reference initials, or copy notation.

1. Read the sample letter of application shown in Figure 17-8.
2. Open a new blank document in Word.
3. Write a letter of application for the job description you chose in Activity 17-4. Follow the *Eight Keys of Dynamic Digital Communication* discussed on page 117. Use the format and include the elements shown in Figure 17-8.
4. Spell-check and proofread the document carefully; correct all errors.
5. Print the letter of application.
6. Save the letter as ***My Letter of Application 1*** in your solutions folder for this chapter. Close the document, but leave Word open for the next activity.

ONLINE APPLICATIONS

Many employers accept only resumes that have been keyed into forms on their website. An online application form often requires the same information that is in an application, a resumé, and a letter of application.

In an online application form, you should fill out all sections as completely as you can. Identify your strongest skills and experiences, and make sure they appear somewhere on the form. Proofread carefully before clicking the Submit or Send button because you may not be able to retrieve or edit the form once you submit it.

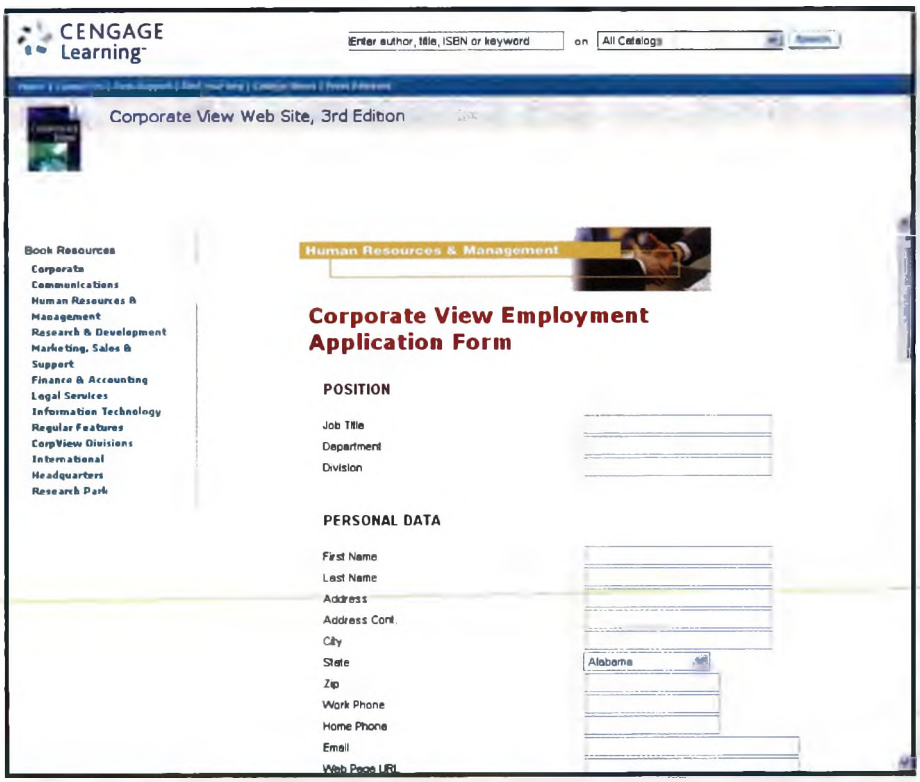


FIGURE 17-9
Online Application Form

DIGITAL SNAPSHOT

Résumés and Keyword Analysis

Employers use software to search résumés for keywords and phrases that match their needs as listed in job descriptions. This process helps determine which candidates to reject—and which to select for further consideration.

When writing your résumé, identify the keywords for which employers are likely to scan. To give yourself a good chance of making the search software work for you, include as many keywords as you can in your résumé. For example, *Microsoft Office, Dreamweaver, Google AdWords,* and *Bachelor of Science* are keywords that a company may look for in résumés for a Web designer position.

Activity 17-6 COMPLETE AN ONLINE APPLICATION

In this activity, you will prepare your résumé for use in an online employment application form.

1. Open the file you saved earlier as ***My Resume 1***. Edit your résumé to a format that can be scanned successfully. Removing the formatting can help the text of the résumé remain intact as it moves from one system to another through the cloud.
   a. Change all of the bulleted items to regular text.
   b. Make all bold text uppercase, and then remove all bold from the text.
   c. Remove all indents and centering to left-justify all of the text, including your contact information.
2. Save this document as ***My Resume 2*** in your solutions folder for this chapter, and leave it open.
3. Prepare your letter of application for use in an online employment application form.
   a. Open the file you saved earlier as ***My Letter of Application 1***.
   b. Edit your letter to a format that can be scanned successfully.
   c. Eliminate any bold or italicized words, and left-align all of the text.
   d. Save the document as ***My Letter of Application 2*** in your solutions files folder for this chapter, and leave it open.
4. Access the Corporate View intranet. Choose **Human Resources & Management** followed by **Corporate View Employment Application Form**.
5. Fill out the online application form as completely as you can. To move to a field, click in the field or tap **Tab**. The form is divided into sections. Key your personal data and your educational data. Assume that you will complete high school this year if you have not already graduated.

6. Copy and paste the contents of ***My Resume 2*** into the résumé section of the online form. Follow the instructions on the form advising you to use the **Enter** key at the end of each line.
7. Select all of the text in ***My Letter of Application 2***, from the salutation to the complimentary close of the letter. Copy and paste the text into the online form.
8. Click the **Print** button. Proofread your application carefully. Correct all mistakes; print the form again; and place a copy with your hard-copy résumé, letter of application, and personal Web page.
9. Submit the form by clicking the **Submit** button found at the end of the form.

LESSON 17-3 Preparing Portfolios, Recommendations, and Presentations

IN THIS LESSON YOU WILL:

Objectives

1. Begin to develop a personal employment portfolio.
2. Acquire, write, and proofread letters (or e-mails) of recommendation.
3. Develop a multimedia presentation, using Microsoft PowerPoint, to highlight your skills and achievements.
4. Improve your resume using Microsoft templates.
5. Improve your employment documents, including a business card, using an original design.
6. Preview and then create a personal career Web page.

Key Terms

final round of interviews
portfolio
preliminary interviews
second round of interviews

STARTING A PERSONAL EMPLOYMENT PORTFOLIO

Many professional-level careers require more than a traditional résumé. Some companies may require you to present a **portfolio** of your accomplishments. You should create your portfolio in advance and have it ready to take with you to a job interview.

An employment portfolio is a collection of items demonstrating your skills and abilities. It should also reflect your career goals, creativity, and personality.

A portfolio is a place to display the best of what you can do. You have already created several important pieces of a professional portfolio:

- Résumé
- Letter (or e-mail) of application
- Letters of recommendation
- Business card
- Samples of your best work
- Professional presentations

What else should go into a portfolio? The answer will depend on the career cluster you are interested in. For instance, what would the following professionals take to an interview?



- An artist working in the Arts, Audio/Video Technology, & Communications cluster would bring samples of artwork reflecting his or her skills, abilities, recognitions, awards, and personal style. (See Figure 17-10.)



- An architect looking for a job in the Architecture & Construction cluster would bring drawings and photographs of the buildings he or she has designed.



- A network administrator seeking a promotion in the Information Technology cluster would show industry-recognized certification documents.



- A display manager for a major retail store in the Marketing, Sales, & Service cluster should bring photographs of product displays he or she has designed.

Be selective. Not everything should go into a personal employment portfolio. Think of a portfolio as a series of snapshots displaying your skills and abilities.



iStockphoto.com/switas

FIGURE 17-10 For artists, a portfolio is a must!

DIGITAL SNAPSHOT

Backing Up Your Resumé with Evidence

You should collect evidence for your portfolio that supports claims you make in your resume. For instance, see how Maria Bravo backs up every statement she made in her resumé with documents and evidence as marked in Digital Snapshot 17.2. In the exercises a the end of this chapter, you will get a chance to back up your accomplishments with the evidence you need to substantiate your claims.

Related Experience

- *Currently a Communications Coordinator in the TeleView Division*
- *Currently manage three in-house employees and teams of freelance writers and artists*
- *Wrote press releases, coordinated fund-raising events, and worked closely with the public relations team for the U.S. Olympic Ski Team*
- *Worked part-time at a public radio station writing copy for fund-raising spots and public service announcements*
- *Rewrote and edited Corporate View's online Employee Handbook*
- *Edited eight manuals from other writers in the company*
- *Created training on how to write effective press releases*
- *Created 40 percent of the Internet pages on TeleView's website*
- *Proficient in Microsoft Office; obtained MOS certification*
- *Proficient in Microsoft speech and handwriting software*
- *Proficient in Web design software, including Dreamweaver, Flash, Illustrator, and Photoshop*
- *Works well with others and am prompt and enthusiastic about work*

Achievements

- *Ezra T. Taft Academic Scholarship, 2004*
- *AdWords Certification, 2003*
- *Second place, Escapes magazine writing contest in the creativity category, 2003*

Sample press releases she has written

Copies of the public service announcements she has written

Copies of the employee handbook and training manuals she has edited and created

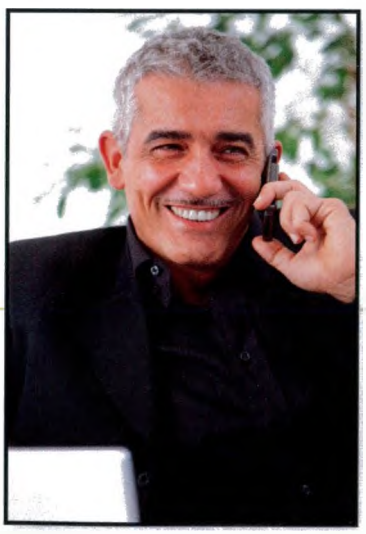
A list of links to the Web pages she has created

Samples of her work using these applications

Scanned copies of her scholarship letter, certifications, and awards

DIGITAL SNAPSHOT 17.2 Portion of Maria's Resume

ROUSING WRITTEN RECOMMENDATIONS



StockLite/Shutterstock.com

Who would be willing to give you a glowing recommendation?

Most employers require references. Human resource specialists generally contact your references by phone or e-mail. Sometimes employers require written references in the form of letters (or e-mail messages) of recommendation. You will want to have written recommendations in your portfolio so that they are readily available should a potential employer request them.

People you know will need to write these recommendations for you. When thinking about whom to ask to write a letter of recommendation, consider someone who knows you well and can evaluate your work ethic, abilities, and commitment to do a good job.

When you begin actively seeking a job, your employment portfolio should contain at least three strong, positive letters or e-mails of recommendation. In this next activity, you will get started by obtaining your first letter.

FIGURE 17-11
Ask someone you know to write a letter of recommendation for your portfolio.



Make copies of letters of recommendation and store the originals in a safe place. Obtain electronic copies of letters if possible. If not, scan the letters.

DIGITAL SNAPSHOT

A Written Recommendation

Do not be afraid to ask someone for a letter of recommendation. You can help any person you ask to write a recommendation by providing:

- A copy of your résumé.
- Information about the job in which you are interested.
- A transcript, report card, or list of relevant courses you have taken.
- The full name and address of the person to whom the letter should be sent if it is for a specific employer.
- Plenty of time. Request the letter at least two weeks before it is needed. Give the writer more time if possible so he or she will not feel rushed or pressured when writing the letter.

After you receive a letter of recommendation, review it to make sure it will help you get the job you want. If you think it does not present you in a positive light, thank the writer for his or her time and file the letter away, but do not use it. Do not ask the writer to rewrite the letter. Learn from the letter's comments and move on. You want letters of recommendation—from people who can give you honest yet positive recommendations.

Activity 17-7 ACQUIRE A LETTER OF RECOMMENDATION

INSTANT MESSAGE

Writing letters of recommendation is time-consuming and never easy. Write a thank-you letter to anyone who prepares a letter of recommendation for you.

1. Identify one person you think would be willing to write a positive letter (or e-mail) of recommendation for you.
2. Read *Digital Snapshots: A Written Recommendation* carefully, and prepare the information described for the person who will be writing your recommendation.
3. Approach your contact, and ask him or her to write a recommendation for you. (*Note:* Give the person the option to submit a recommendation to you via e-mail if that is more convenient.) Ask your contact to write a one-page recommendation that you can use during the interview process for a future job.
4. Save a copy of your letter in a digital format. If the letter is printed, scan it and save it in a PDF format. If your letter is in a format such as Microsoft Word, save the file in your ***Chapter 17*** folder.

WRITING RECOMMENDATIONS FOR OTHERS

There is no better way to learn what a great letter of recommendation should contain than to write one. A letter of recommendation should include the following information:



iStockphoto.com/mbbirdy

FIGURE 17-12 Teamwork is extremely important in the workplace.

- An explanation of your relationship to the candidate and the length of time he or she has known you
- Details about the candidate's skills, talents, responsibilities, work, and projects
- Your view of the candidate's personal characteristics, such as honesty, initiative, and positive attitude
- Your opinion of the candidate's interpersonal skills, such as his or her ability to get along with others and work well in a team
- How the candidate's strengths, skills, training, and characteristics can contribute to his or her job performance
- Your contact information—where you can be reached for questions (via e-mail or by phone) on behalf of the candidate

A good letter of recommendation need not contain all the information listed above; however, it should present the candidate in a positive light and discuss his or her qualifications.

Activity 17-8 WRITE A LETTER OF RECOMMENDATION

DigiTip

It is not common to ask friends to write letters of recommendation unless that friend happens to know about your work experience. This activity, however, is designed to provide you with experience with informative writing, as well as to promote thinking about the elements of a good recommendation letter.

INSTANT MESSAGE

Carefully proofread the letter of recommendation you have written. Make sure there are no errors or grammatical mistakes.

1. Team up with another person, and write a letter of recommendation for each other. Follow the advice in the text preceding this activity. For the purpose of this exercise, you do not need to list your personal contact information.
2. Share a copy of your letter with your teammate.
3. Save a copy of the letter of recommendation you have written in your ***Chapter 17*** folder.

PERSONAL MULTIMEDIA SHOW

Some professional-level jobs require several rounds of interviews. **Preliminary interviews** narrow down the potential candidates to a select few. These interviews are sometimes held over the phone or online using communications tools like Windows Live Meeting or Google Docs.



iStockphoto.com/Sportstock

A **second round of interviews** is organized to choose from among the top two to five candidates. A **final round of interviews** selects one person over all the other candidates for a position.

Second- or third-round participants may be asked to deliver a multimedia presentation about their qualifications to a group of interviewers. This may be presented live or online, through the cloud. You should prepare a slide show in advance so it is ready in case you need it. Later, you can modify it to fit the specific job for which you are applying.

FIGURE 17-13
You may be asked to deliver a multimedia presentation about your qualifications.

Activity 17-9 PREPARE A POWERPOINT PRESENTATION

1. Start Microsoft PowerPoint, and prepare a multimedia slide show about yourself. Your slide show should take about five to seven minutes to deliver. Follow these guidelines when creating the show:
   - Allow your personality to be reflected in the show, but keep the tone professional.
   - Introduce yourself and highlight the skills, experience, and achievements that are most relevant to the career you want to pursue.
   - Include digital files, photos, images, and perhaps even audio or video clips from your ***Chapter 17*** folder to enliven your presentation and demonstrate your skills.
   - Add slides that share your vision of what you can do professionally. Include such things as your definition of teamwork, your strengths as they relate to the job, and your ideas for making any team or department that you join more effective.
2. Save your slide show as ***My Career Slide Show*** in your solutions folder for this chapter.
3. Close PowerPoint.

IMPROVING YOUR RÉSUMÉ

INSTANT MESSAGE

A template determines the basic structure for a Word document and contains settings such as fonts and special formatting.

Your first resume should be written in a plain and simple manner, making it easy to copy into an online application form. The resume you take to an interview, however, should be attractive, flawless, and eye-catching.

As with your earlier efforts in writing a resume, it must be clear, state your skills, and be professionally written. If your resume is rambling, contains errors, or is sloppy, it will convey a poor impression. You may not be considered for the job—even if you are qualified.

Fortunately, Microsoft Word has built-in templates to help you create a resume with an attractive format. You can also use Microsoft Publisher and be even more creative.

Activity 17-10 USE A TEMPLATE TO CREATE A RÉSUMÉ

1. Start Word if necessary, and open ***My Resume 1*** from your ***Chapter 17*** folder.
2. Use a template or styles in Microsoft Word or use Microsoft Publisher's powerful capabilities to create a new, attractive résumé by transferring the key information from your old résumé to your new résumé design. If necessary, review how to use templates by revisiting your Chapter 5 word processing lessons or Chapter 9 desktop publishing lessons.
3. Save your new résumé as ***My Resume 3 Add Style*** in your ***Chapter 17*** folder.

CREATE AN ORIGINAL RÉSUMÉ DESIGN

INSTANT MESSAGE

A traditional résumé is still likely to be your best choice as the main way to convey your work history and experience, but a companion tri-fold brochure could be the ticket to catching an employer's interest and saying more about your creativity and personality.

Are you feeling a bit more adventurous? If so, you may want to design your own creative résumé. A trifold résumé brochure can be printed and folded to make a dynamic multipage presentation from a single sheet. But it will take some planning. Find an appealing template online that you can adapt for your splashy personal résumé.

Such a brochure gives you more flexibility than does a plain traditional résumé. You can include a picture of yourself or add a photo of one of the schools you have attended.

And as long as you are designing, you might consider creating a fancier version of your letter of application. Additionally, you may also want to have a personal business card available when you go to an interview. All of these can be created using Microsoft Word or another publishing software application. Give these projects a try in the next few activities.

DIGITip

A trifold brochure has six pages, or panels, from a single sheet of paper if you use all panels and sides of the paper. The brochure can be folded in different ways depending on the order in which you want the reader to view the pages.

Activity 17-11 DESIGN A CREATIVE MULTIFOLD RÉSUMÉ

1. Design a trifold or another multifold brochure containing your résumé. Be creative. Use photographs and images to enhance the effectiveness of the document.
2. Save your creation as ***My Trifold Resume***, and place a copy in your ***Chapter 17*** folder. Leave your desktop publishing program open for the next activity.

Activity 17-12 CREATE A FANCY LETTER OF APPLICATION

1. Open ***My Letter of Application 1*** that you created in Activity 17-5. Update your letter of application with a creative and fanciful design. For example, you might create a personal letterhead using WordArt for the letter, apply styles, or find a letter template online that you would like to use. (See Chapter 9 if you need help.)
2. Save the document as ***My Application Letter 3*** in your ***Chapter 17*** folder.

Activity 17-13 MAKE A PERSONAL BUSINESS CARD

INSTANT MESSAGE

Give your business card to those who are interviewing you. The business card should include your contact information and links to important online information about you.

1. Use your desktop publishing skills to create a personal business card. You can use Publisher, or you can use a template in Word if you wish. (See Figure 17-14.)
2. Save the business card as ***My Business Card*** in your ***Chapter 17*** folder.



Redshinestudio/Shutterstock.com

FIGURE 17-14
Having a business card to give to a potential employer is a nice professional touch.

DEMONSTRATE YOUR NET-ABILITY: A PERSONAL CAREER WEB PAGE

INSTANT MESSAGE

Some information should not be shared online. You may post an e-mail address on a Webpage, but never give your personal phone number or home address.

A personal career Web page can leave a lasting impression. It is a place for interviewers to go after the interview to learn more about you. A professional-looking career Web page can also demonstrate your technical skills and display samples of your work, as Ryan did with his website shown in Figure 17-4.

A career Web page is like a personal introduction. An online Web page gives you the opportunity to showcase yourself as a prospective employee. Web biographies can be less formal than a resume. Here are a few suggestions for what you can include:

- Your resume
- Samples of your work
- Letters or certificates related to honors or awards
- Electronic copies of diplomas or certificates to highlight educational experience
- Sound or video clips or an online project you have completed
- An electronic copy of letters of recommendation; you could also create links to the websites of schools you have attended

ETHICS

Web Page Privacy and Honesty

You may not realize it, but everything you post on the World Wide Web can circulate online forever. Every day, all the pages on the Internet are being copied and archived by powerful computers. They are being saved as a historical, reference, and research tool. For good or ill, the things you post, the things you say, and the pictures you place on the Web can be searched for and found decades into the future.

Thus, do not post inaccurate or inappropriate material on the Web. Keep your reputation honest, and post only accurate information. Such honesty will pay big dividends for you in the future.

However, you may not wish to put your personal contact information online. It is perfectly acceptable to withhold such information because, remember, anything you post on the Web can be read by anyone, anywhere, anytime. Guard your privacy!

Activity 17-14 CREATE YOUR CAREER WEBSITE OR PROFESSIONAL FACEBOOK-STYLE PAGE

In this activity, create your own career-oriented Web page. Revisit Chapter 11 if you need help with this activity.

1. Create a Web page or a professional Facebook social networking page that contains information that is important to convey to a prospective employer.
2. Scan your picture, and save it as a GIF or JPG file. Place your picture on your Web page. Place other images if you believe they will enhance your website.
3. Save a copy of your Web page in your ***Chapter 17*** folder. Pick your own filename.
4. Open and view your personal employment Web page in your Web browser to preview how it will look to a prospective employer.
5. Make any necessary edits, and resave your work.

LESSON 17-4 Preparing for Impressive Job Interviews

IN THIS LESSON YOU WILL:

Objectives

1. Write an interview acceptance message.
2. Develop your interview skills.
3. Consider and prepare for potential interview questions.
4. Learn key strategies for a successful interview.
5. Review a sample corporate interview rating scale and practice interviewing with team members so that you can interview like a professional.

Key Term

drive

ACCEPTING AN INTERVIEW

INSTANT MESSAGE

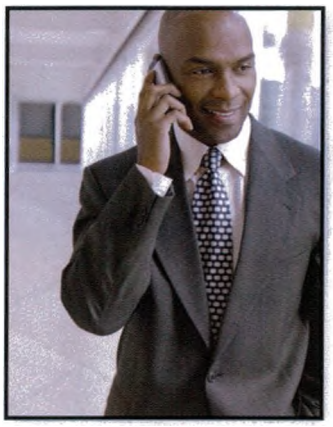
Whenever possible, try to schedule interviews in the morning, when you tend to be fresh and at your best. Record your interview time in your calendar. Set alarms or reminders so you are sure to leave for your interview in plenty of time.

Your application, resumé, portfolio, and letter of application help open the door to an interview. If you have the qualifications needed, you may be selected by an employer for an appointment for an interview.

The next step is to schedule your interview. Your invitation to be interviewed may come by phone, e-mail, fax, or even registered mail. If you have not heard about a possible interview after a few days, call to inquire about the status of your application. When talking to a prospective employer, use a professional tone. Be serious! Go to a quiet place to take the call. Avoid interruptions and background noises whenever possible.

You must reply quickly, accept the interview, and make sure you know the following information:

- Location of interview
- Time of interview
- Date of interview



bikeriderlondon/shutterstock.com

- Anything you need to bring (for example, extra copies of your resume, a copy of your portfolio, or a multimedia presentation)
- Appropriate dress

FIGURE 17-15
You may be notified by phone or by mail that you have been selected for an interview.

ETHICS

Be Sincerely Nice to Everyone

There was once an extremely qualified candidate (whom we will call Sally) who sailed through her preliminary interviews for a position at a major software firm. In the second round of interviews, Sally was asked to give a multimedia presentation highlighting what she would do if she obtained the position. Her presentation was flawless, and she was confident that she would be offered her dream job.

After the interview, the interviewers began discussing the strengths and weaknesses of the final three candidates. The administrative assistant, who had taken calls from Sally to schedule her interviews and to answer her questions, remarked that the candidate had been rude, insistent, and pushy. Sally had put her on the defensive in more than one phone call. When Sally visited the Human Resources office to check on the status of her application, she also behaved rudely. The HR administrator said Sally made her feel like "a servant." After the interviewers heard these reports, they decided to offer the position to another applicant.

Always be aware of what you say and how you say it. Be polite to everyone you talk to. If you do this, unlike Sally, you will not slam the door on career opportunities.

LEARN HOW TO INTERVIEW

After you have applied for a job and accepted an interview, the next step is to prepare for the interview.

Although a few interviews are informal, most are formal. They may involve a single manager or a team of interviewers. And with many applicants applying for the same job, you must go to an interview totally prepared.

Often, qualified people fail to get the job they want because their interview skills are lacking. Knowing how to interview properly is important. Before any interview, you should practice how you will answer interview questions. This frequently means inventing questions that you could be expected to answer in a real interview. As the day of the interview approaches, you should:

- Carefully consider the clothes you will wear. Professional dress is essential to making a good impression. (See *Digital Snapshots: Dressing for an Interview.*)
- Prepare extra copies of your resume and business card.
- While not every interview will require a portfolio, have a copy ready just in case.

On the day of the interview:

- Wake up early. It is better to arrive 15 minutes early than 1 second late.
- Plan to arrive at the interview site early so you do not feel rushed or pressured because you arrived late.
- As the time of your interview approaches, turn off your cell phone or pager so these devices will not interrupt your interview.
- Before the interview, relax. Breathe deeply. Do not "stress out."

There is no better way to prepare for a job interview than to talk to a professional in your chosen career field. If you do not know what a career is all about or are unsure of what an interview will be like, ask someone who knows.

DIGITAL SNAPSHOTS

Dressing for an Interview

Dressing appropriately is important for any interview. It is better to be overdressed than to appear less than professional.

For women, a business suit or pants/skirt with blouse/sweater/jacket, polished shoes, and matching accessories are appropriate.

For men, a business suit or pressed pants, neutral colored shirt, tie, and polished shoes are considered proper attire. Hair should be trimmed and neatly combed.

Regardless of your position on this issue, be aware that some employers may be uncomfortable with body piercing and tattoos. If you have them, do not be dramatic in displaying them when you interview for a job. Show that you are willing to keep them covered, and/or display them in a way that minimizes the shock they may have on the customers of the business at which you may be employed.



iStockphoto.com/Digital Planet Design

DIGITAL SNAPSHOT 17.3 Professional dress is essential to making a good impression at an interview.

INTERVIEW QUESTIONS

When you are preparing for an interview, scan the company's website if it has one. Try to anticipate what skills, talents, or attitudes the company values. Then try to anticipate questions you may be asked.

There are two general categories of questions you may be asked in any job interview. The first set relates specifically to the skills listed in the job description. To anticipate these questions, you must review the job description carefully and be prepared to explain how you fulfill the requirements of the job.

The second category of questions deals with general work habits and skills. For example, at Corporate View, the seven skills listed below are considered vital for every employee:

- Problem-solving skills
- Technical communication skills
- Flexibility
- Drive
- Interpersonal skills
- Project management skills
- Teamwork skills

Knowing that the company thinks these skills are important, you should practice potential interview questions related to the skills. To anticipate the questions, you must know the definition of each skill. For example, **drive** can be defined in a variety of ways. In business, *drive* means to work hard to achieve goals. See Table 17-3 for examples of drive in the workplace and how your drive may be gauged through interview questions.

Definition: Drive: To work hard to achieve goals

Examples	Potential Interview Questions
Is excited about the job	Why do you want this job?
Works to accomplish goals	Give an example of how you have worked to achieve your goals. What job-related goals do you have for the future?
Constantly revises his or her goals	Have you ever set a goal that became impossible to achieve? Explain. What process do you go through to update and revise your goals?
Finds ways to be more productive	Describe a situation where you increased the productivity of others.
Is motivated to do a good job	What motivates you to do a good job?
Can motivate others	Explain a situation where you motivated others to work hard and complete a job successfully.
Plans to succeed	Why is work important to you?

TABLE 17-3
Examples of Drive

Activity 17-15 ANTICIPATE INTERVIEW QUESTIONS

Work with a team to complete this activity. Imagine that each member of your team has been asked to interview for a job at Corporate View. You need to anticipate interview questions that you may be asked about the skills Corporate View values. You have already reviewed some questions you might be asked about *drive* in Table 17-3.

1. As a team, divide up the remaining groups of work-related skills listed below:

- Problem-solving skills
- Technical communication skills
- Flexibility

- Interpersonal skills
- Project management skills
- Teamwork skills

2. Open the data file ***Anticipate Interview Questions***.
3. Each team member must define his or her assigned work-related skill. Then he or she should list five to seven examples in the first column and create five to seven interview questions in the second column that are related to this skill.
4. Save your definitions and questions as ***My Interview Questions*** in the ***Chapter 17*** folder.

DURING THE INTERVIEW

Interviewers may begin evaluating you even before you have been introduced. Follow these guidelines as you enter the interview room:

- Shake hands with each member of the interview team.
- Make eye contact with each interviewer.
- Introduce yourself and listen for the names of the interviewers. Try to address each interviewer by name.

Follow these guidelines during the interview:

- Sit up straight.
- When an interviewer asks a question, look at him or her intently. Show interest in the question.
- Answer questions completely and clearly; however, do not draw out the answers.
- Do not spend too much time answering any one question.
- Be (or at least act) confident.
- Do not hem and haw. Avoid phrases like *and a*, *like*, and *uh*.
- Avoid slang terms.
- Use technical and job-related terms when appropriate.
- Never use profanity—ever!
- Do not take lengthy notes. If you need to write something down, do so quickly and make eye contact again.
- Avoid making negative comments about present or former coworkers or supervisors.

Usually, at the end of the interview, you will be asked if you have any questions for your potential employer. If you are confused about anything, ask for clarification. Ask only one or two questions if possible. (*Note:* If you are offered the job, you will have chances to ask questions later during your job orientation meetings.) Thank each interviewer for his or her time, and shake hands with each person if it is convenient.

INTERVIEW RATING SCALE

Many corporations use a rating scale to evaluate candidates interviewing for a new job.

A sample scale based on several corporate interview rating scales is shown in Table 17-4. Understanding how interviewers rate candidates can help you do a better job during an interview. Notice in the sample rating scale that how well you answer interview questions is considered just as important as your qualifications for the job.

Rating	Criteria
5 Excellent	All major elements of the job were addressed in the candidate's answers to the interview questions. The candidate's qualifications greatly exceed job requirements. The candidate answered each question very clearly.
4 Very Good	Most major criteria for this job were addressed in the candidate's answers to the interview questions. Few if any major deficiencies exist in the candidate's qualifications. The candidate answered questions clearly.
3 Good	Some of the major and minor criteria for the job were addressed in the candidate's answers. Some deficiencies exist in the candidate's answers and qualifications, but none is a major concern. The candidate answered questions adequately.
2 Weak	Few of the major criteria for the job were addressed in the candidate's answers. Major deficiencies exist, and these deficiencies are of some concern. The candidate struggled with some questions.
1 Poor	Very few of the criteria for the job were addressed in the candidate's answers to interview questions. Many deficiencies exist in the candidate's qualifications, which could lead to problems if the candidate were hired. The candidate had trouble answering most of the questions effectively.

TABLE 17-4 Interview Rating Scale

Activity 17-16 MOCK INTERVIEW WITH TEAM MEMBERS

In this activity, you will use the sample interview questions you wrote in Activity 17-15 and practice answering questions in a mock interview.

Work with two classmates to conduct mock interviews. Allow 12 to 15 minutes for each interview.

1. In the first mock interview, one team member will be a job applicant. The other two team members will be interviewers. The interviewers will ask questions drawn from those your team created in Activity 17-15.
2. When you are the interviewer, use a rating scale of 5 to 1 (as in Table 17-4) and rate the performance of each mock applicant. Assume that the applicant's education and skills are adequate for the job. Your rating will be based on how well the applicant answers your questions. Write a few brief notes to explain your rating. What did the applicant do well? What needs improvement?
3. In the second and third mock interviews, different team members will play the roles of job applicant and interviewers. When you are the applicant, behave as if this were a real interview. Answer the questions seriously and completely. Remember the points listed in Table 17-4 about how to answer questions during an interview.

Chapter Review

Academic Emphasis

Building Up: Your Vocabulary

Exercise 17-1 GET DOWN YOUR DEFINITIONS

Practice your definitions with electronic flashcards at *www.cengage.com/school/keyboarding/digitools*.

Building Up: Your Math Skills

Exercise 17-2 BREAK ANNUAL SALARIES INTO HOURLY SALARIES

In Exercise 16-2, you learned to convert an hourly rate to an annual salary. Now, reverse the process and turn annual salaries into their hourly equivalents.

1. Open an online spreadsheet.
2. Create a worksheet that allows you to convert annual salaries to hourly rates.
3. Calculate the hourly rate for three of the annual salaries listed in Table 17-5 on page 574 for the Law, Public Safety, & Security career cluster.
4. Save the file as ***Exercise 17-2*** in your ***Chapter 17*** solutions folder.

Exercise 17-3 CALCULATING COMPARATIVE SALARIES

You have been offered two jobs—one as an appliance salesperson and another as an office assistant.

1. Read the following information about each job.

Sales Position in an Appliance Store

Your base salary will be $960 per pay period (one month). You will also receive a 5 percent commission on the price of items you sell during the pay period. The store manager says you can expect to sell around $4,000 in merchandise in an average month. This amount can vary widely, however, and will depend on your selling skills. The deduction from your paycheck for health insurance will be $125 per pay period. The job is close to your home, so you can ride the bus to work.

Office Assistant

As an office assistant, you will work 80 hours per pay period (two weeks) and receive $8 per hour. Your deduction for health insurance will be $50 per pay period. The company is located 20 miles from your home and is not accessible by bus.

2. Use your math skills and a spreadsheet application to help you evaluate the jobs and make a decision about which one to accept. What can you expect your gross pay, less the deduction for health insurance coverage, to be per year for each job?
3. Which job would you choose? Why? Consider your job interests and the location of each job in addition to salary and health insurance costs.
4. Save your calculations as ***Exercise 17-3***.

Building Up: Your Language Arts Skills

Exercise 17-4 FROM THE EDITOR'S DESK: CONFUSING USAGE

1. Open your browser software. Use the bookmark on your Favorites list to access the *From the Editor's Desk* page on the Corporate View intranet. (If you do not have a bookmark, access the Corporate View intranet by choosing **Corporate Communications** > **From the Editor's Desk**.)
2. Choose the **Confusing Usage** link. Under *Confusing Usage*, choose the **Then, Than; Threw, Through; Affect, Effect** link. Copy and paste the questions to a word processing document and answer the questions. (Read any additional information provided on the Web page, and follow the directions for completing the practice exercise.)
3. Check your answers by comparing them with the answers on the bottom of the intranet page.
4. Save your work in your ***Chapter 17*** folder as ***Exercise 17-4 Confusing Usage***.

Career Clusters



Law, Public Safety, & Security

As its name suggests, careers in the Law, Public Safety, & Security cluster involve creating or enforcing laws and helping to ensure the safety of the public. You are probably familiar with jobs in this area (for example, lawyer, police officer, and firefighter). After the attacks on the World Trade Center and the Pentagon on September 11, 2001, many people gained a new appreciation of the vital role that firefighters and police officers play. Also, tens of thousands of new Homeland Security jobs have been created since that time.

Attorneys and judges protect the rights of people and businesses in court. The court system employs a variety of people who help keep the streets safe, business dealings honest, and individual liberties protected through the court system.

These and additional jobs in this career cluster are seen in Table 17-5.

Position and Yearly Salary		Position and Yearly Salary	
Police Dispatcher	$27,670	Correctional Officer	$33,770
Fire Dispatcher	$27,670	Legal Secretary	$35,970
Correctional Office Manager	$46,030	Supervisor of Police and Detectives	$59,940
Firefighter	$35,880	Fire Inspector	$44,050
Bailiff	$32,590	Detective or Criminal Investigator	$52,150
Parking Enforcement Worker	$27,480	Police Officer	$41,950
Animal Control Worker	$25,670	Security Guard	$20,460
Crossing Guard	$20,020	Lawyer	$69,030
Judge	$79,540	Paralegal or Legal Assistant	$39,220
Court Reporter	$42,530	Law Clerk	$32,280

TABLE 17-5
Career Cluster: Law, Public Safety, & Security

Exercise 17-5 RESEARCH JOB SKILL AND TRAINING REQUIREMENTS

1. Choose three of the careers listed in the table for Law, Public Safety, & Security.
2. For each career, research the education, training, and skills needed for success. You may find this information included in job descriptions posted online, from the *Occupational Outlook Handbook*, or through interviews with people who work in these careers. (Be sure to note the source for any articles or Web pages you use.)
3. Write a short one-page unbound report to summarize the information you find. Title the report **Career Qualifications**. Use the name of each career as a side heading. Include a references page to list the source information for articles and Web pages.
4. Save the report as ***Exercise 17-5*** in your ***Chapter 17*** folder.

21st-Century Skills

Social and Cross-Cultural Skills

HIRING PRACTICES

You will work with people from every part of the world—from different cultures, religions, and backgrounds. It is important that you (and they) remember to focus on the job and not on personal differences. Rules have been put in place to ensure that each employee maintains his or her rights, obligations, and privileges. Some of these rules relate to hiring and employment practices.

Often, job seekers feel as though they are at the mercy of interviewers and employers. However, the rules are on the side of job seekers. All employers must follow certain rules when hiring. For example, they must provide equal opportunity to employment regardless of race, age, or gender. They must provide a fair and equitable hiring atmosphere.

The most important source of equal opportunity employment information is the Equal Employment Opportunity Commission (EEOC). The EEOC is an independent federal agency created by Congress in 1964 to enforce Title VII of the Civil Rights Act of 1964. This agency has authority to establish equal employment policy and provides education and technical assistance activities through field offices serving every part of the United States. You can visit the EEOC website at www.eeoc.gov.

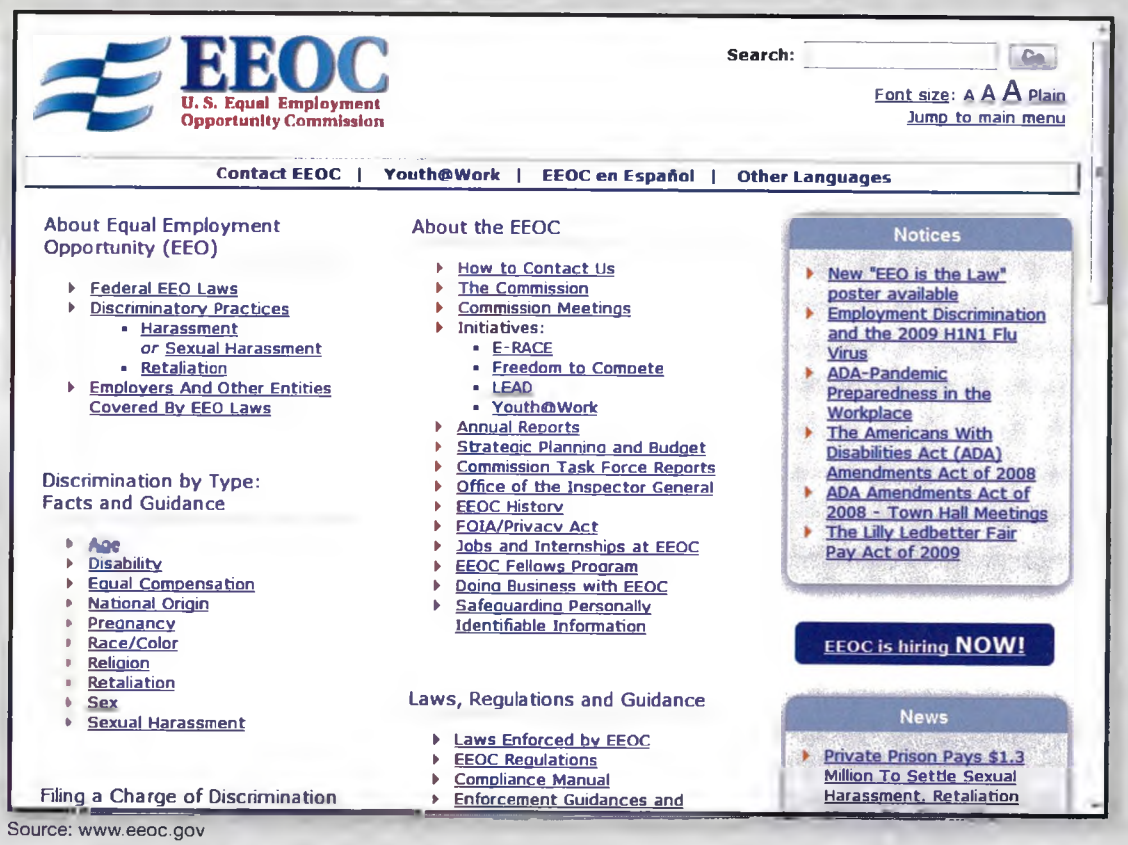


FIGURE 17-16
The EEOC Website

Source: www.eeoc.gov

Exercise 17-6 JOB DISCRIMINATION PRESENTATION

TEAMWORK

1. Working together as a team, start Word. Open the data file ***Discriminatory Practices***. This document has been downloaded from the EEOC website. It contains information about job discrimination. Read the entire Job Discrimination FAQs file to learn more about the subject.
2. As a team, prepare a PowerPoint presentation to present key information from this document. Include an appropriate title slide.

3. For each of the laws listed below, include one or two slides that briefly explain the type of discrimination or the discriminatory practices the law prohibits. (*Hint:* You may use a search tool like Google to learn more.)
   - Title VII of the Civil Rights Act of 1964 (Title VII)
   - Equal Pay Act of 1963 (EPA)
   - Age Discrimination in Employment Act of 1967 (ADEA)
   - Title I and Title V of the Americans with Disabilities Act of 1990 (ADA)
   - Sections 501 and 505 of the Rehabilitation Act of 1973
   - Civil Rights Act of 1991
4. Include a slide or two that lists remedies available when employment discrimination is proven.
5. Insert graphics on some slides to make the show more interesting. For example, you could use a dollar sign graphic on the Equal Pay Act slide and an American flag on the Americans with Disabilities Act slide.
6. Save a copy of the slides as ***Exercise 17-6*** in the ***Chapter 17*** solutions folder.
7. Deliver your presentation to the class or to another team.

Communication and Collaboration

EMPLOYEE HANDBOOK

After you report to your new employer, you may be asked to attend a new employee training orientation. You may also be given an Employee Handbook.

An Employee Handbook is a reference guide to your privileges and obligations as an employee.

For instance, you are obligated to help cultivate an atmosphere in which harassment is not tolerated. In this next exercise, you will review the rules Corporate View has established regarding harassment. In the exercises that follow, you will bring your team together and investigate other important issues regarding employee rights, privileges, and obligations.

Exercise 17-7 REVIEW A HARASSMENT POLICY

1. Access the Corporate View intranet from your local network or online at *www.cengage.com/school/keyboarding/digitools* as directed by your instructor. Choose the **Regular Features** followed by **Employee Handbook** and **Harassment Policy** links.
2. Read the information provided on harassment in the Employee Handbook, and write answers to the following questions:
   - What is the definition of sexual harassment as explained in this employee handbook?
   - What may happen to a Corporate View employee who harasses another employee?
   - What other types of harassment are specifically mentioned in the harassment policy?
3. Save your answers as ***Exercise 17-7*** in the ***Chapter 17*** solutions folder.

Exercise 17-8 REVIEW IMPORTANT EMPLOYEE RIGHTS AND OBLIGATIONS



1. Work in a team with three classmates to learn more about the rights and obligations of employees at a typical corporation.
2. Assign one of the topics or group of topics below to each team member.
   - At-Will Employment, Equal Opportunity Employment, Other Employment
   - Attendance, Confidentiality Policy, Travel
   - Drug and Alcohol Policy
   - Progressive Discipline
3. Access the Corporate View intranet. Choose **Regular Features** and then the **Employee Handbook** link. Choose other links that lead to information about your assigned topic(s). Read the information, and make notes about the policies.
4. Write a short summary of each topic you have been assigned. Share these summaries with your team. Discuss them, making sure the team members understand each policy.
5. Compile your team's summaries into one file, and give each member a copy. Save your combined answers as ***Exercise 17-8*** in the ***Chapter 17*** solutions folder.

Initiative and Self Direction

ASK SOMEONE WHO KNOWS

If you have any doubts about what it takes to get a job, start a career, and succeed, ask someone who knows. In this exercise, interview someone who works at a job that interests you—a parent, friend, teacher, relative, or neighbor. Or contact the Human Resources department of a company and ask to speak with someone in a job that you find interesting.

Exercise 17-9 INTERVIEW A PROFESSIONAL

1. Prepare seven to ten questions to ask the person you will interview. Here are some examples to get you started:
   - What tasks does someone in this job perform?
   - What is a typical career path for entry-level employees in this field?
   - What type of education does a person need to work in this career?
   - What work experience does someone need to secure a job in this career path?
   - What specific things does an employer look for on a résumé?

- What questions might someone be asked if he or she were to interview for a job in this career?
- What advice do you have for someone who is about to interview for a job in this career?

(*Note:* Think of a few questions of your own. What would *you* like to know?)

2. Take notes of the answers you are given. Summarize the answers in an unbound report titled **Professional Interview**. Include the professional title of the person you interviewed and the name of the organization where he or she works. Briefly describe the person's job, and tell which career cluster it is in. List the questions you asked, and summarize the answers.

3. Save the report as ***Professional Interview*** in the ***Chapter 17*** folder.

Appendix A

Multi-Touch and Handwriting Recognition for Microsoft Windows 7 (and Windows Vista)

Lesson A-1 Get Going with Gestures, Flicks, and Multi-Touch Tools
Lesson A-2 Write with Digital Pens and Handwriting Tools*
Lesson A-3 Use the Input Panel's Special Features*
Lesson A-4 Handtyping Essays*

Key Terms
digital pen
flicks
gestures
multi-touch
writing pad

THE GREAT MOUSE, PEN, AND FINGER WAR



FOX/ZUMA Press/Newscom

FIGURE A-1 A Windows 7 Touch-Enabled Screen

A fight has broken out for control of your PC. The mouse—once the dominant input tool for every computer on the planet—is being challenged by, of all things, your fingertips. Fingerprints are replacing mouse clicks on computers of all shapes and sizes.

Windows 7 touch PCs (and most smart phones) respond to quick finger movements called **gestures**. Speedy gestures that quickly brush across screens are called **flicks**. **Multitouch** gestures use more than one finger at a time. Gestures are called by clever names like *pinches*, *snaps*, *shakes*, *shuffles*, *slides*, *flips*, *twists*, and *spins*. Touch screens and touch pads interpret flicks and gestures as complex mouse movements. If you wish, you can flip through images, snap windows into place, and twist images in circles. You can make windows and images smaller by pinching them and make them larger by flicking them out. On some Android smart phone touch screens, you can slide your finger from letter to letter and type as fast as your finger can move! It is so simple to control a PC with your fingertips that many a mouse is contemplating early retirement.

Another challenger to the trusty mouse is the **digital pen**. Digital pens give more precise control than can be achieved with your fingertips or a mouse. A digital pen is a computer-enabled electronic pen that writes on a computer screen or **writing pad**. A writing pad sits on the side of your computer and lets you draw or handwrite text into a computer with a digital pen. Digital pens have been used by artists, photographers, and graphic designers for decades. Digital pens are also used on tablet PCs and the Apple iSlate.

* Lessons A-2, A-3, and A-4 can all be found at the product web site: *www.cengage.com/school/keyboarding/digitools*. Once there, go to the tab that says "Appendix A" to view the entire appendix.

Digital Tip

Digital pens are valuable handtyping tools. Handtyping converts handwritten words into keyed text on a computer screen. Handtyping is best accomplished with the precision of a digital pen. (You will learn more on handtyping in Lesson A-2, which can be found at the product web site: *www.cengage.com/school/keyboarding/digitools*, under the "Appendix A" tab.)

Some tablet PCs are all screen. They can only be operated with your fingers or with a digital pen on the tablet's surface. Other tablets are *convertibles*. They combine touch screens and keyboards. But what really worries mice is the popularity of a new generation of PC monitors and touch pads that allow multi-touch finger gestures and digital pen control simultaneously.

LESSON A-1 Get Going with Gestures, Flicks, and Multi-Touch Tools

IN THIS LESSON YOU WILL:

Objectives

1. Examine mobile touch tablets and smart phones.
2. Discover gestures and flicks and apply five basic mouselike gestures.
3. Learn ten additional touch and multi-touch commands.

MOBILE TOUCH TABLETS AND SMART PHONES



AP Photo/Jeff Chiu, File

FIGURE A-2
Google's Nexus One

Finger flicks were popularized by the Apple iPhone and iPod Touch, released for the first time in 2007. Now, Apple and Microsoft have put those same technologies into monitors, tablets, and touch pads. Available on most smart phones—like Google's Android-powered Nexus, the Motorola Droid, and RIM's Blackberry series—touch technology is everywhere. (See Figure A-2.) If you do not already own a touch-screen smart phone, laptop, tablet, touch pad, or touch monitor, you have undoubtedly seen them advertised on television and the Internet.

In 2009, Microsoft got busy and incorporated finger flicks and gestures into every Windows 7 PC—although you need a touch screen, tablet PC, or Wacom touch pad to give gestures a go. Newly designed touch screens, mobile computers, and book readers have changed the way people think about computing. Each of these digitools has something in common: You do not need a keyboard or mouse to use them effectively! Many screens let your fingers do the "mousing."

TOUCH TERMS, MOUSE TERMS

INSTANT MESSAGE

Gestures vary somewhat from device to device. Expect some differences.

The mouse was invented way back in 1963 by Douglas Engelbart at the Stanford Research Institute. It did not catch on big, however, until 1984, when Apple introduced it on a revolutionary computer called the Apple Macintosh. Since then, nearly everyone has grown up with these familiar mouse terms: *point*, *click*, *double-click*, *right-click*, and *click and drag*. We are now adapting the old mouse terminology to fingertip gestures. Memorize the five basic gestures in Table A-1, and then practice them in the next activity.

DigiTip You must use a computer with a touch screen or connect a tablet to your computer to complete some portions of the activities in this Appendix.

	Finger Gesture	How to Gesture	Mouse Term
1	Point or hover	Touch your finger on the surface, and gently move the pointer around the screen and into position to complete another gesture.	Point
2	Click or tap	Touch your finger on the surface and lift up quickly.	Click
3	Double-click or double-tap	Quickly tap your finger on the surface twice, and lift up both times.	Double-click
4	Tap, touch and drag; or click, click, and drag	The first tap activates an inactive window or selects an object like a graphic. The next touch-and-drag action moves or resizes windows and objects such as graphics.	Click, click, and drag
5	Right-click or two-finger tap	Quickly tap with two fingers.	Right-click

TABLE A-1 Gestures

Activity A-1 MOUSELIKE GESTURES

DigiTip If you are inexperienced with Windows, you should complete Chapter 1 before continuing.

INSTANT MESSAGE

Touch and drag the scroll bar up or down along the side of the Start menu if you cannot see your Microsoft Office or Accessories folders.

1. Start your computer (and, by default, Windows 7).
2. Point or hover by gently touching the surface and moving your finger around the screen in a slow circle. First, go clockwise; then move counterclockwise.
3. Click or tap by moving your pointer to the **Start** button and tapping it with a single tap and lifting.
4. Tap **All Programs** with a quick tap and lift.
5. Hover up to the ***Accessories*** folder, and open it with a quick tap.
6. Hover to **Paint**, and open it with a quick, steady tap.
7. Click or tap the **Maximize** button to expand the Paint window to its maximum size. (This may not be necessary if Paint is already maximized.)
8. Tap the **Restore Down** button to restore Paint to a smaller window.

INSTANT MESSAGE

To review the Minimize, Maximize, and Restore commands, see Chapter 1, *Lesson 1-3 Application Know-How.*

9. To change the size of the Paint window, tap on **Paint** first to select it, if necessary. Touch or drag the resize handle inward or outward. The resize handles are located in the corners of the window.
10. Now that you have created a smaller Paint window, touch and drag the window by its title bar. Move the entire Paint window up, down, left, and right on the screen.
11. To minimize Paint so that it appears on the taskbar, tap the **Minimize** button.
12. To restore Paint and have it appear once again on the desktop, tap the **Paint** icon on the taskbar.
13. Tap the **Brushes** button in Paint, and select a color from the color palate, as seen in Figure A-6.
14. Paint in the input area, changing colors from time to time.
15. To close Paint, do a double two-finger tap in the middle of Paint's title bar. Pick **Close** from the context list that appears. (See Figure A-3.) You can also just touch, click, or tap the **Close** box.

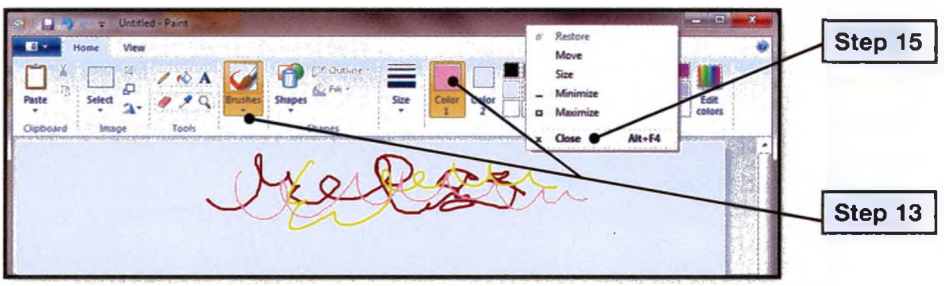


FIGURE A-3
Fingerpaint and Right Click

16. Choose **Don't Save** in the dialog box that appears asking if you want to save the changes to your Untitled art work.
17. Return to step 3, and practice your maximize, minimize, restore, and resizing techniques using gestures by repeating the above steps with these applications.
    - Microsoft Office PowerPoint (found in the Microsoft Office folder)
    - Microsoft Office Word (found in the Microsoft Office folder)
    - Microsoft Internet Explorer (found on the taskbar)

MORE POSITIVE GESTURES

INSTANT MESSAGE

Some digital devices and software allow basic gestures but not multi-touch gestures using two fingers. If this is the case, gestures 12, 13, and 14 in Table A-2 may not be possible.

Microsoft has added more than a half dozen flicks and gestures to touch-enabled tablet PCs, touch-screen monitors, and Wacom touch pads. If you have the proper hardware, use your fingers to push, pull, flick, and shake windows and objects all over the screen. You can even use your fingers to fingerpaint. The kinds of gestures vary somewhat from device to device, so expect some differences depending on your hardware configuration. The basic movements, however, should be similar.

A number of these gestures are features that are available with Windows 7 even if you do not have a touch screen or pad. For example, the snap feature works just as well when dragging a window with a mouse. Likewise the push up and push down features can be used by left-clicking on a window's title bar and making a rapid upward or downward motion.

Memorize the additional gestures seen in Table A-2, and then practice them in the next activity.

TABLE A-2 Memorize these gestures

	Gesture	How to Gesture
6	**Snap** left and right	Touch a title bar and drag any open window with your finger to the left or right edge of the screen until the window "snaps," making the window "pop" into position and appear half the size of the screen.
7	**Push up** to maximize	Touch and push a title bar of an open window up to the top of the screen until it "snaps," maximizing the entire window.
8	**Pull down** to restore	Touch and pull a title bar down with a quick flick, pulling it down to the center of the screen until it restores, or shrinks, the size of the window.
9	**Shake**	Touch and shake the title bar of a target window quickly left and right several times to minimize all open windows behind the target window.
10	**Flick** scroll bar up and down	Flick the scroll bar (on a Web page or another object) up and down to move an object or a page up or down, left or right.
11	**Flip** between or Shuffle forward, back, up, and down	Flip between open icons on the taskbar, images in a scrolling list, or previously viewed Web pages. To do so, touch the surface and flick your finger in the opposite direction you wish to go.
12	**Pinch in** with two fingers	Zoom out by pinching inward quickly with both fingers on a page or an object. (Zooming out makes objects smaller, or farther away.)
13	**Flick out** with two fingers	Zoom in by touching and flicking two fingers quickly outward on an image, an object, or a page. (Zooming in makes objects bigger, or closer.)
14	**Spin** or **Rotate**	Rotate an image or another object, placing a finger or thumb at the top of the object and another finger or thumb at the bottom of the object and twisting your wrist.
15	**Pan**	Panning moves a page or an image from left to right or right to left (such as using a scroll bar at the bottom of a page with a mouse).

Activity A-2 SNAP, PULL, AND SHAKE

INSTANT MESSAGE

All of the steps in Activity A-2 can be completed with a traditional mouse. A touch screen or touch pad is not necessary.

1. Open two copies of the Paint application.
2. Touch and drag one copy of Paint by its title bar to the left side of the screen. Watch the mouse pointer (the little arrow) as you push it with your finger. When the mouse pointer reaches the left edge of the screen, half of the screen will be shaded, and when you lift your finger, the window will "snap" and fill the left half of the screen.
3. Touch and drag the second copy of Paint by its title bar to the right side of the screen. When the mouse pointer reaches the right edge of the screen, lift your finger. The window will "snap" and fill the right half of the screen.
4. Touch and pull each copy of Paint by its title bar toward the center of the screen. The windows will be restored to their original size.
5. Touch and push one copy of Paint up by its title bar to the top of the screen. Paint will snap into a maximized position, which will fill the height and width of your computer screen.

6. Touch and pull the maximized Paint window down to the center of the screen to restore it to its previous size.
7. Open the Calculator and WordPad applications, which can be found by tapping **Start** > **All Programs** and opening the ***Accessories*** folder. You should now have two copies of Paint, a copy of Calculator, and a copy of WordPad open on your desktop.
8. Navigate to a copy of the Paint application. Touch and shake the title bar quickly left and right several times until all the open windows behind the application disappear. Repeat the shaking to restore the minimized windows.
9. Close all of the open applications. Leave Windows open for the next activity.

Activity A-3 FLIP AND PINCH

DigiTip

You can use almost any website to practice the next few steps, although the sample site in step 2 should be familiar to you if you have completed Chapter 2.

1. Open the Internet Explorer browser. You may use a different browser if you choose.
2. Key the Web address **www.cengage.com/school/keyboarding/digitools** in the address bar. Tap the **Enter** key.
3. Choose the **Corporate View Intranet** link.
4. From the navigation bar, touch the **Regular Features** link.
5. Choose the **Update from the CEO** link, and read the message from the top leader of the company.
6. Flick the scroll bar down to view the middle and lower part of the page. Continue flicking to the bottom of the page.



FIGURE A-4
Flick, Flip, and Shuffle

7. Flick the scroll bar up to view the top of the page again.
8. Touch the left side of the open Web page, and flick to the right to "flip" to the previous page, as illustrated in Figure A-4.
9. Repeat step 8 to go back another page.
10. Flip back to the CEO's page by reversing the process. Touch the right side of the open Web page, and flick to the left to "flip" twice back to the original page.
11. To zoom out, place your index finger and thumb about 4 inches apart on the Web page, as illustrated in Figure A-5. Pull or "pinch" the fingers together to zoom out, or to make the page smaller.
12. To zoom in, place your index finger and thumb less than 1 inch apart on the Web page, as seen in Figure A-5. Flick your fingers away from each other to zoom in, or to make the page larger.

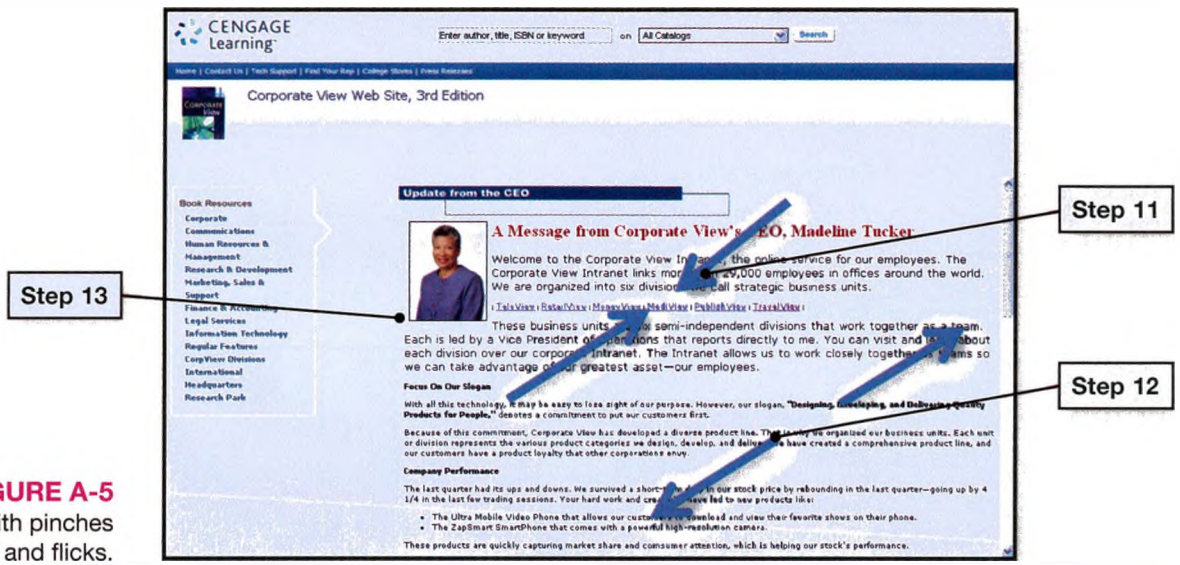


FIGURE A-5
Zoom in and out with pinches and flicks.

Digital Tip

You can use your right-click skills with almost any online image, as explained in step 13. To learn more about managing images, see Chapter 8.

INSTANT MESSAGE

Hyperlinks are often too small to tap with your fingers. Zoom in on the link first by flicking out to make the link bigger so it is easier to touch.

13. Zoom in on the image of the CEO. Right click by doing a two-finger tap directly on the image.
14. Navigate down the list to the **Save Picture As** command, and tap on it.
15. Save the image as ***Madeline_Tucker*** in your ***Appendix A*** solutions folder.
16. Close Paint but, if possible, leave Windows open for the next activity.

INTO THE CLOUD

Windows 7 touch PCs (and most smart phones) respond to quick finger movements called gestures. If you have a multi-touch-screen monitor or a tablet computer, you can use flicks, gestures, and handtyping tools. Digital pens give more precise control than can be achieved with your fingertips or even a mouse. A digital pen is a computer-enabled electronic pen that writes on a computer screen or writing pad. You can also use a Wacom Bamboo Pen & Touch handwriting pad attached to your traditional desktop or laptop.

Like all components of a computer, there is much to learn about how to use these tools properly and efficiently. To learn more about these features and tools, please refer to this appendix at the product web site: *www.cengage.com/school/keyboarding/digitools*. Once there, go to the tab that says "Appendix A". There you will find the entire Appendix A, which covers the many facets of multi-touch and handwriting recognition.

Appendix B

Microsoft Speech Recognition for Windows 7 or Windows Vista

Lesson B-1 Up and Running
Lesson B-2 Talking to Your PC
Lesson B-3 Dictating and Fixing Mistakes*
Lesson B-4 Voice-Writing Proficiency*

ABOUT SPEECH RECOGNITION

Voice-writing at the speed of your thoughts is an amazing experience—challenging but amazing. With Microsoft Speech Recognition, your writing is not limited by your typing speed or the pace of your pencil across a notepad. You can think, speak, write, and type at the same time. Speech recognition is a powerful tool for both business needs and personal productivity. And the good news is that it will not take you very long to master the basic skills.



AP Photo/Larry W. Smith

FIGURE B-1 Typing by talking is fast and fun.

In this appendix, you will learn to write with your PC at the speed of your speech—far faster than anyone can key on a keyboard. By doing so, you will become more efficient and more employable and you will probably gain more enjoyment from writing. Another advantage is that you can reduce your risk of carpal tunnel-related typing injuries.

* Lessons B-3, and B-4 can all be found at the product web site: *www.cengage.com/school/keyboarding/digitools*. Once there, go to the tab that says "Appendix B" to view the entire appendix.

DIGITAL SNAPSHOT

Proper Headset Position

Follow these steps when using your headset:

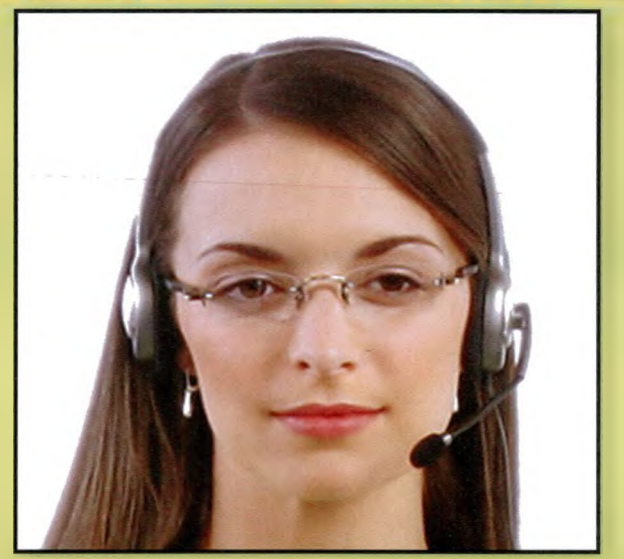
- Place your headset comfortably on your head as seen in Digital Snapshot B-1.
- Move the speaking side of the microphone toward your mouth.
- Position the microphone about a thumb width (¾ inch) from your lower lip.

Ideally, your headset's microphone should rest to the side of your mouth. Move the listening side of the microphone down until it is even with your lower lip. This will help prevent the microphone from picking up the sound of your breathing, which can cause unnecessary errors.

If extra words appear randomly on your screen because of your breathing, move the listening portion of your microphone ¼–½ inch further away from your mouth and nose.

INSTANT MESSAGE

If you are using a USB-style headset, make sure it is plugged in before you start your computer so Windows Vista can find the proper drivers to make it work correctly.



DIGITAL SNAPSHOT B-1 Position your headset

For more help with headsets and headset adjustments, read *Digital Snapshot: Your Microphone and Other Settings* on page App-21 and *Digital Snapshots: Various Types of Headsets* in the full Appendix B, which you will find online and on the IRCD.

LESSON B-1 Up And Running

IN THIS LESSON YOU WILL:

Objectives

1. Learn some important information before you begin.
2. Complete the training tutorial and learn about your speech recognition user interface (UI).

SOME ADVICE BEFORE YOU BEGIN

When learning to use speech recognition, the best advice is to relax and be patient. Do not expect your dictation to be perfect right away. You will learn to improve your accuracy lesson by lesson and correction by correction. In a short period of time, your speech software will respond to the sound of your voice with no problems.

Regardless of how skilled you are with speech recognition, you cannot overcome the handicap of a bad microphone. Read *Digital Snapshot: Proper Headset Position* before you begin. A quality microphone, properly adjusted, is the single most important ingredient to your voice-writing success.

SPEECH: TRAINING AND THE UI

While the Windows Vista Speech Recognition system is intuitive and accurate, some initial training is required to get it up and running. In the following activity, you will work with the training tutorial and, along the way, become familiar with the user interface.

Activity B-1 STARTING MICROSOFT WINDOWS VISTA SPEECH RECOGNITION

1. Choose the **Start** button, and then key the words **Windows Speech Recognition** (or **Speech Recognition)** in the search window as seen in Figure B-2.

INSTANT MESSAGE

You can also open the Speech Recognition Control Panel by choosing **Start > Control Panel**, choosing to *View by* **Small icons** (so it is easier to see the Speech Recognition icon), and then double-clicking the **Speech Recognition** icon.

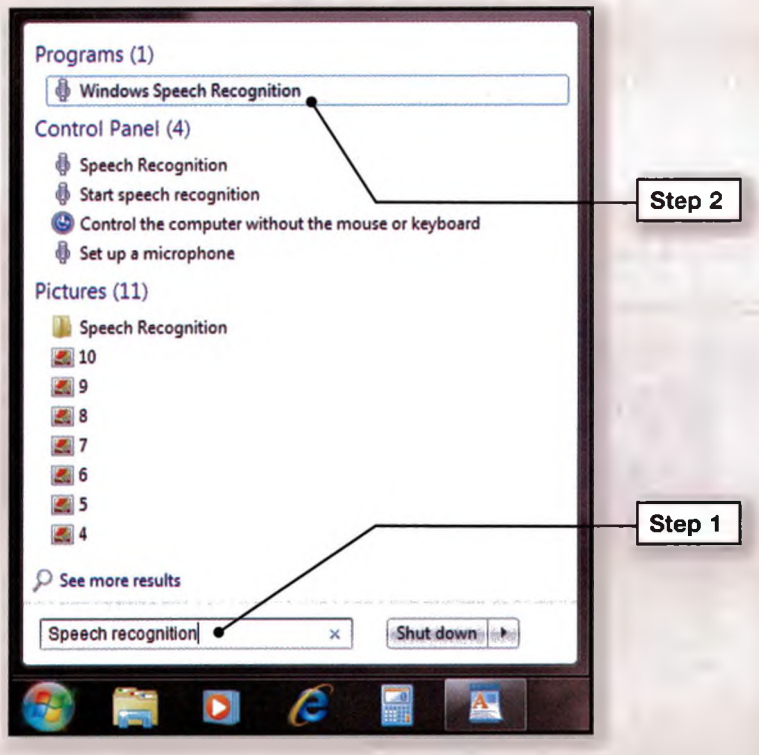


FIGURE B-2
Speech Recognition on the Start Menu

2. Open **Windows Speech Recognition** from the list that appears as in Figure B-2.

3. Several screens will appear. Read each one carefully, and follow the instructions. For example, in the screen pictured in Figure B-3, you will be asked to pick your headset, which is normally the first option as marked. When you are ready to move on, choose the **Next** button.

INSTANT MESSAGE

If you need additional advice, read *Digital Snapshot: Proper Headset Position on page App-10.*

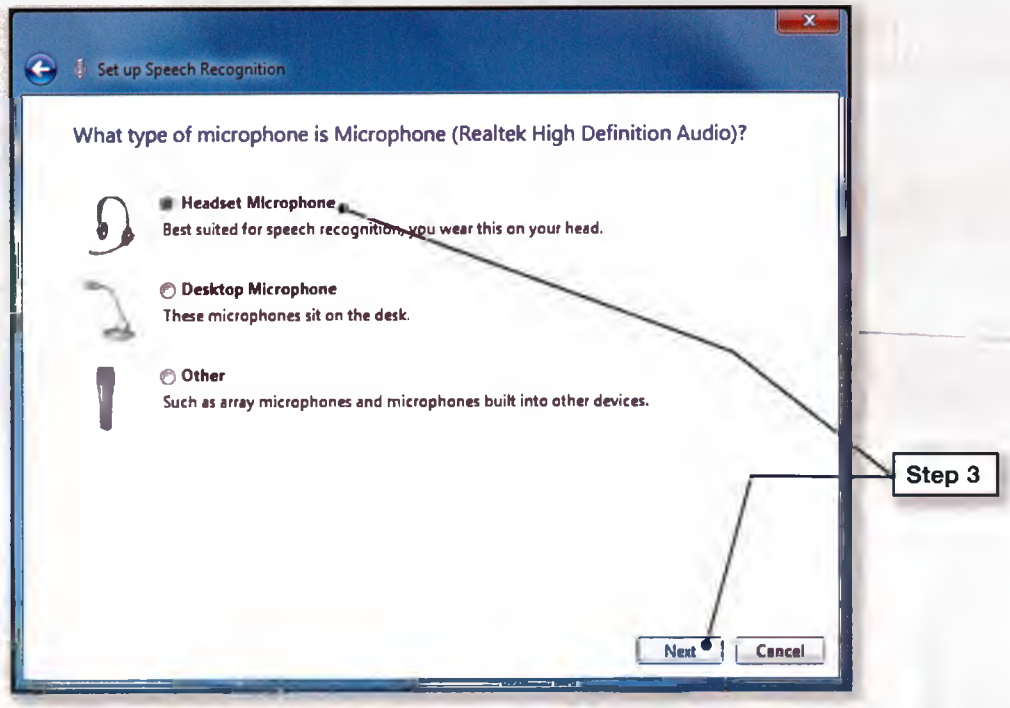


FIGURE B-3
Set Up Speech Recognition: Microphone Selection

4. In the window pictured in Figure B-4, you will be asked to read a sentence aloud to adjust your microphone's volume settings. Read with a natural speaking voice. Do not shout, but do not whisper either. Your goal is for your voice to register in the green range shown on the bar. You can read this sentence several times. After you are finished reading, choose **Next**.

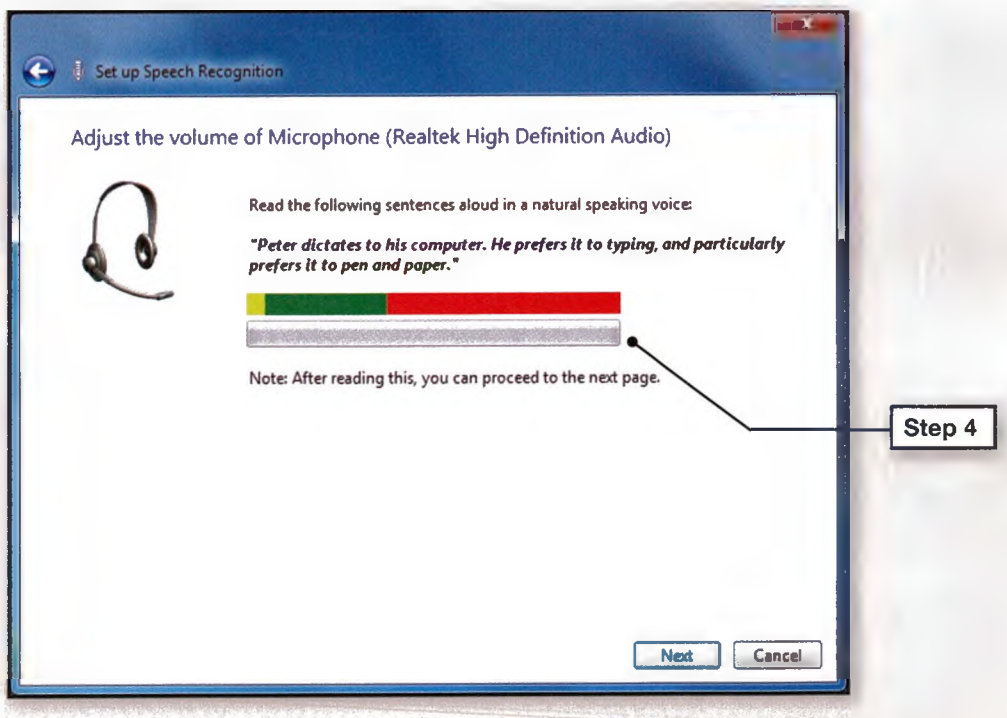


FIGURE B-4
Set Up Speech Recognition: Volume Adjustment

DigiTip

Windows 7 and Windows Vista speech recognition will have you choose a few settings as you continue through the setup process. Each is explained in the steps that follow. For example, in Figure B-5, you can choose to either Enable or Disable document review. Enabling this feature will analyze all the documents you have written to examine how you write. This can improve your accuracy. However, if you are not using your own computer (for example, you are using a computer at school), you do not need to run this resource-consuming feature.

5. Select either **Enable document review** or **Disable document review**, and then tap **Next**.

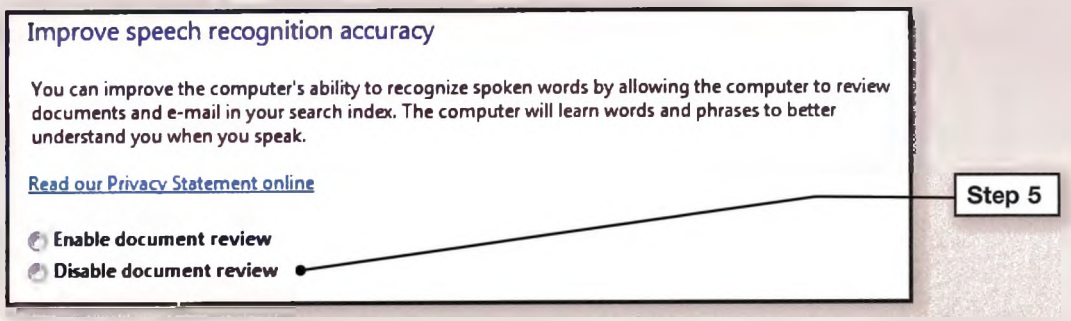


FIGURE B-5
Disable Document Review

6. Choose **Use manual activation mode** if you want to start speech recognition from scratch each time you use it. Choose **Use voice activation mode** if you want to have speech recognition start automatically every time you start your computer. (See Figure B-6.) Tap **Next**.

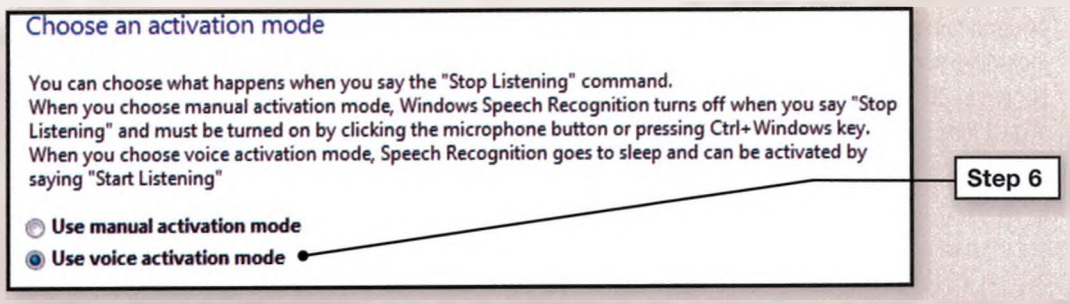


FIGURE B-6
Activation Mode

DigiTip

Your speech software will give you a chance to view or print a reference sheet. If you don't want to do that now, you can view the reference sheet any time you wish by saying **What can I say**?. For now, simply view the reference sheet without printing unless directed to do otherwise.

INSTANT MESSAGE

You will definitely want to run the tutorial. (See Figure B-8.) Doing so will improve your accuracy and teach you more about how to use the system. Use your voice to work through the exercises provided. Speak as clearly as you can.

7. Choose **View Reference Sheet**, and review it. Note that because this is an online reference sheet, you will need access to the Internet to view it. Do not print. Close the reference sheet when you are finished viewing the document, and choose **Next** to continue.

DigiTip

You will be asked if you want to run speech recognition every time you start your computer. You will probably want to have it running all the time! If so, place a check mark next to **Run Speech Recognition at startup**. If not, deselect the option.

8. Select **Run Speech Recognition at startup**, and choose **Next**. (See Figure B-7.)



FIGURE B-7
Optional: Run Speech Recognition at Startup

INSTANT MESSAGE

If you miss the tutorial, you can right-click on the speech user interface at any time as explained in *Digital Snapshot: Your Microphone and Other Settings on page App-21*, and choose **Start Speech Tutorial**.

9. When asked, choose **Start Tutorial** Start Tutorial. If time permits, complete the entire tutorial before proceeding with the rest of this appendix.

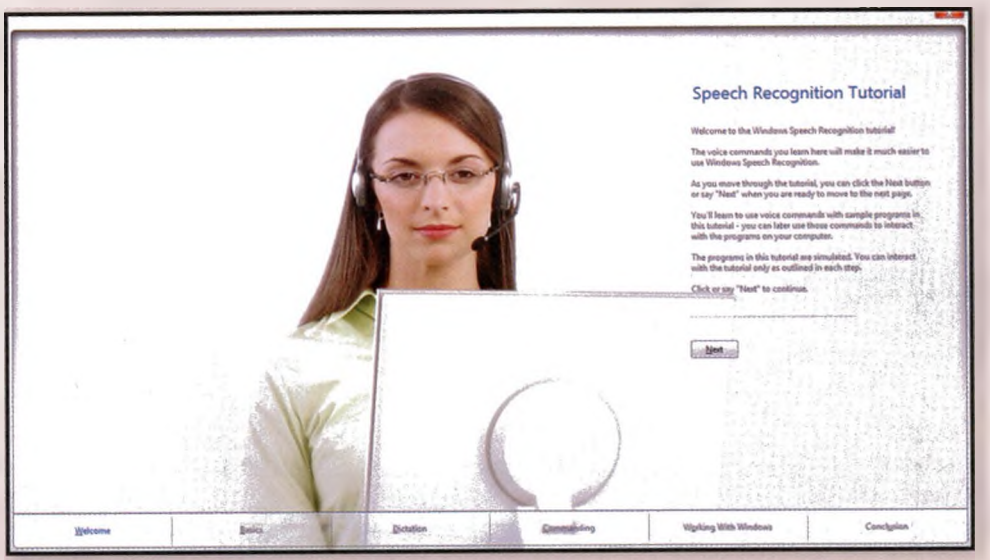


FIGURE B-8
Speech Recognition Tutorial

LESSON B-2 Talking to Your PC

IN THIS LESSON YOU WILL:

Objectives

1. Explore the speech user interface (UI).
2. Say commands.
3. Open and close applications.
4. Dictate and delete text, including punctuation.
5. Launch and cancel commands with Show Numbers.

Key Terms

audio meter
busy icon
speech user interface (speech UI)
text feedback area

MEMORIZE THE PARTS OF THE SPEECH UI

Memorize the parts of the **speech user interface (speech UI)** marked in Figure B-9.



FIGURE B-9
Speech Recognition User Interface (UI)

1. **Microphone button:** Click or tap the **Microphone** button to turn speech on and off. The Microphone changes color to signal its status:
   Grey: Off or Not Listening
   Blue: Listening
   Yellow: Busy
2. **Audio meter:** Lets you know how loud you are speaking.
3. **Text feedback area:** Displays messages on the status of speech recognition. Common messages include:
   Listening — Speech is ready to hear you and respond to commands.
   Sleeping — Say **START LISTENING** to make speech listen to you.
   What was that? — Speech is confused.
4. **Busy icon:** Appears to be spinning when speech is thinking and unavailable. It disappears when the system has caught up and is ready to work. (*Note:* Read *Digital Snapshot: Microphone Feedback in Your Speech UI.*)

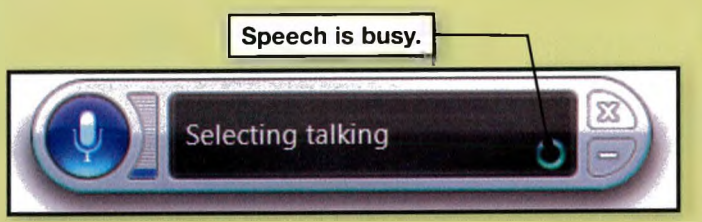
DIGITAL SNAPSHOT

Microphone Feedback in Your Speech UI

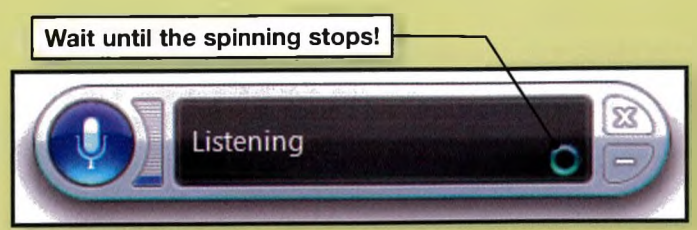
The text feedback area and busy icon are tools to keep your eye on.

A. As you can see in Digital Snapshot B-2, the text feedback area lets you know what is happening. Keep your eye on the spinning, or "busy," icon. Speech is busy until the icon disappears.

B. In Digital Snapshot B-3, even though the text feedback area says speech is "Listening," it is not ready until the busy icon stops spinning. If you have a fast processor with sufficient memory, or RAM, the busy icon will disappear quickly. With older, slower computers, you may need to wait a bit before you can continue.

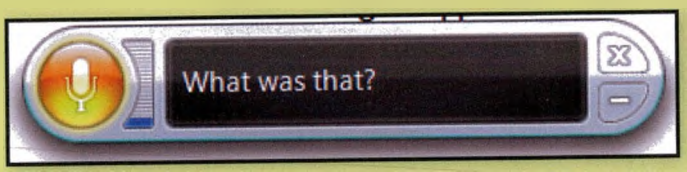


DIGITAL SNAPSHOT B-2 Working: Not Ready



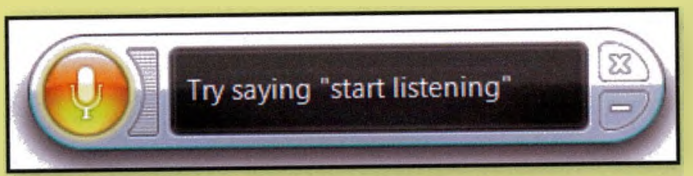
DIGITAL SNAPSHOT B-3 Still Not Ready

C. As seen in Digital Snapshot B-4, your text feedback area will tell you when the system is confused and does not know what you have said.



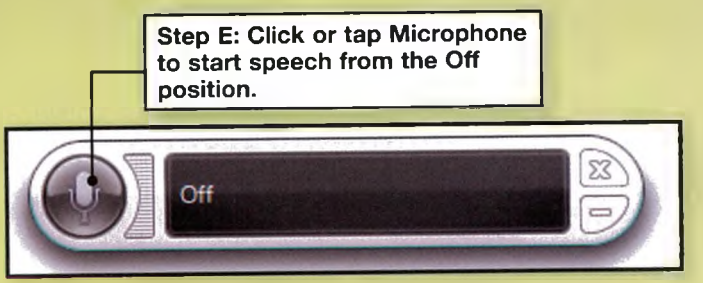
DIGITAL SNAPSHOT B-4 Confused

D. Look carefully in the text feedback area for hints about what to do next. As seen in Digital Snapshot B-5, your speech software will often tell you the command you need to use.



DIGITAL SNAPSHOT B-5 A Hint

E. If you are using battery power on your laptop or tablet PC, when you say STOP LISTENING, your microphone will turn Off instead of going into Sleeping mode. This helps preserve power. To restart speech, click or tap the Microphone button (See Digital Snapshot B-6.)



DIGITAL SNAPSHOT B-6 Speech Turned Off

SAY COMMANDS

Throughout this appendix, commands have been written in UPPERCASE letters to make them easy for you to spot. Speak commands clearly and confidently. Be decisive and speak with authority. When saying commands, follow these rules:

- Be silent <silence> for 1/2 second before and after each command.
  Say: <silence> **START LISTENING** <silence>
- Do not stop in the middle of multiword commands.
  Say: **GO TO THE END OF THE DOCUMENT**
  Do not say: **GO TO THE** <hesitate> **END OF THE DOCUMENT**
- Say each command clearly.
  Say: **STOP LISTENING**
  Do not say: **STOp LISTENin**
- Do not speak fast, but do not speak too slowly either.
  Say: **DELETE THAT**
  Do not say: **DELETETHAT**
  Do not say: **DELETE** < hesitate > **THAT**
- Do not speak too softly, but do not shout either.
  Say: UNDO THAT
  Do not say: **UNDO THAT**
  Do not say: **undo that**

OPEN AND CLOSE APPLICATIONS USING SPEECH

As you have already seen, the Speech Recognition program is a phenomenal tool for working in applications. However, another key feature is the ability to work with multiple applications, opening and closing them as needed, without ever having to touch a keyboard.

Activity B-2 PRACTICE COMMANDS

In this activity, we have inserted the word <silence> in steps 1–3 to remind you to be quiet before and after you say the commands.

1. Turn your microphone on by clicking or tapping the **Microphone** icon as marked in Figure B-10 or by saying <silence> **START LISTENING** <silence>.

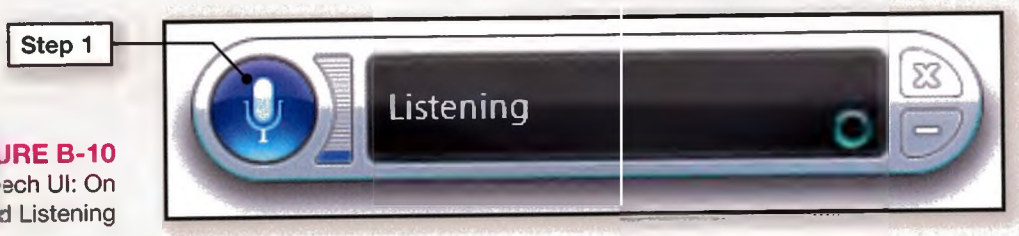


FIGURE B-10
Speech UI: On and Listening

INSTANT MESSAGE

The speech UI will display *Sleeping* after you say STOP LISTENING. If you see *Off* instead, read *Digital Snapshot: Microphone Feedback in your Speech UI* part E on page App-16.

2. Practice turning your microphone off with this command:
<silence> **STOP LISTENING** <silence>

3. Practice turning your microphone on and off again with these commands.
<silence> **START LISTENING** <silence>
<silence> **STOP LISTENING** <silence>

4. Reposition the speech UI to the top and bottom of the screen by saying:
START LISTENING
MOVE SPEECH RECOGNITION
MOVE SPEECH RECOGNITION

5. Show and hide the speech recognition UI by saying:
HIDE SPEECH RECOGNITION
SHOW SPEECH RECOGNITION

INSTANT MESSAGE

If a folder, a file, or an application cannot be seen in the Start/My Programs menu, you may need to say SCROLL UP or SCROLL DOWN to display the *Accessories* folder before you can open it with your voice.

6. Open the Help reference card; then close it by saying:
WHAT CAN I SAY?
CLOSE THAT

7. Open and close the Calculator by saying:
START
ALL PROGRAMS
ACCESSORIES
CALCULATOR (Say **1** followed **OK** if necessary)

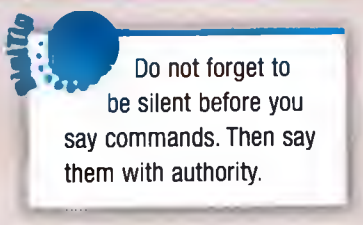
8. Open WordPad and Paint directly by saying:
   START WORDPAD
   START PAINT

9. Switch between the Calculator, WordPad, and Paint, and then close them by saying:
   SWITCH TO CALCULATOR
   SWITCH TO WORDPAD
   SWITCH TO PAINT
   SWITCH TO CALCULATOR
   CLOSE THAT
   SWITCH TO WORDPAD
   CLOSE THAT
   SWITCH TO PAINT (if necessary)
   CLOSE THAT
   STOP LISTENING

DICTATE TEXT AND DELETE TEXT INCLUDING PUNCTUATION

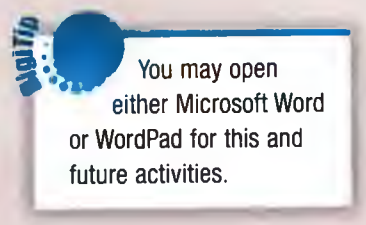
Now that you know how to open and close documents and work with the speech recognition commands, it is time to get into the serious benefit of speech recognition—the ability to dictate text. Because of this, you can voice-write much faster than you can ever type.

Activity B-3 OPEN WORDPAD OR WORD, START TALKING, AND DELETE ALL



1. Turn your microphone on by saying **START LISTENING** or by clicking or tapping the **Microphone** icon. Open Microsoft Word by using the Start menu or by saying **START MICROSOFT WORD**. Or open WordPad by saying **START WORDPAD**.

2. Say the following. Do not worry about correcting mistakes for now.
   Talk to your computer [PERIOD] Speak normally and say each word clearly [PERIOD] Do not shout, and do not whisper [PERIOD] Do not stop in the middle of a sentence [PERIOD] Practice speaking clearly [PERIOD]
   STOP LISTENING



3. Examine your paragraph. How well did you do?

4. Select, clear your selection, select again, and delete all the text on your screen with the following commands. Say:
   START LISTENING
   SELECT ALL
   CLEAR SELECTION
   SELECT ALL

INSTANT MESSAGE

To delete, you can say DELETE or BACKSPACE. You can also say DELETE (THAT), but the word (THAT) is optional. Words in commands that are optional are shown in (parentheses).

Say either **DELETE (THAT)** or **BACKSPACE**
STOP LISTENING

5. Dictate the paragraph again. This time enunciate (say clearly) any of the words that were not displayed correctly the first time. Don't forget to say the periods. Say:
START LISTENING
Talk to your computer. Speak normally and say each word clearly. Do not shout, and do not whisper. Do not stop in the middle of a sentence. Practice speaking clearly.
STOP LISTENING
6. Examine your paragraph once again. Did you do better by speaking more carefully?
7. Delete all the text on your screen. Do not forget to be silent before and after each command. Say **START LISTENING**, **SELECT ALL, DELETE (THAT)** or **BACKSPACE**.
8. Resize and close Microsoft Word (or WordPad if you are substituting that application) by saying:
RESTORE THAT
MAXIMIZE THAT
MINIMIZE THAT
SWITCH TO MICROSOFT WORD
RESTORE THAT
MAXIMIZE THAT
CLOSE THAT
When asked to save, say **DON'T SAVE** in Windows 7 (or say **NO** in Vista)
STOP LISTENING

SHOWING AND CANCELING NUMBERS

There will be many times when you do not know the name of a speech recognition command in Word. There are literally hundreds of buttons from which to choose. Memorizing each one is impractical. So Microsoft came up with an ingenious way around the problem. Here is all you need to do:

1. Wait for the busy icon to quit spinning and for the word *Listening* to appear.
2. Say **SHOW NUMBERS**.
3. Wait for the little transparent numbers to appear as seen in Figure B-11.
4. Say the number over the button, such as **40**.
5. Say **OK** to confirm your choice.

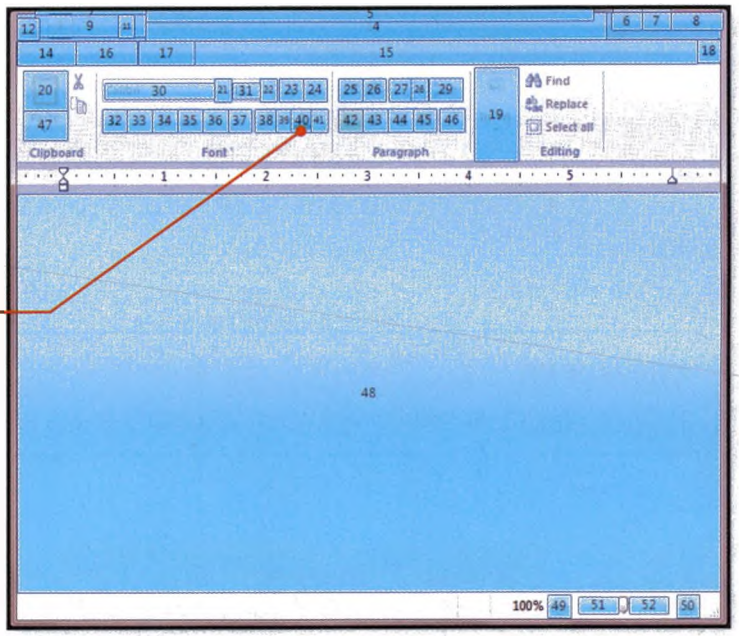


FIGURE B-11
SHOW NUMBERS Command

Activity B-4 USE THE SHOW NUMBERS COMMAND

1. Turn your microphone on by saying **START LISTENING** or by clicking or tapping the **Microphone** icon.

2. Display the **Calculator**. (Then show its numbers and cancel the numbers so they go away.) Say:
   WHAT CAN I SAY?
   Wait for the busy icon to disappear and the word Listening to appear before you say:
   SHOW NUMBERS
   CANCEL *(Note: This command will remove the numbers.)*

3. Focus your eye on the Close box in the corner of the What Can I Say? window. Wait for the busy icon to disappear and the word *Listening* to appear; then say:
   SHOW NUMBERS
   Say the number over the Close box.
   Say **OK**.

4. If necessary, open Microsoft Word (or WordPad) by using the Start menu (see Activity B-1) or by saying
   START MICROSOFT WORD.

5. Say the following sentences. (Do not worry about correcting mistakes for now.)

This is a test [PERIOD]	**ENTER** *(or* **PRESS ENTER***)*
You have just won the grand prize [PERIOD]	**NEW LINE**
Thank you for attending the concert [PERIOD]	**NEW PARAGRAPH**

6. Cut all the text on your screen by saying
   SELECT ALL.

7. Focus your eye on the Cut button in the Home tab's Clipboard group. Wait for the busy icon to disappear and the word *Listening* to appear and then say:

Hint
To create a single space, say **NEW LINE**, **ENTER**, or **PRESS ENTER**. To create a double space between paragraphs, say **NEW PARAGRAPH**.

INSTANT MESSAGE

After picking a button by its number, look in the text feedback area of the speech UI to see what the command is called. Then the next time you need to use it, you can simply say its name.

SHOW NUMBERS
Say the number that covers the **Cut** button.
Say **OK**.

8. Paste all the text by focusing your eye on the Paste button 

in the Home tab's Clipboard group. Wait for the busy icon to disappear and the word *Listening* to appear; then say:
SHOW NUMBERS
Say the number that covers the **Paste** button.
Say **OK**.

9. Close Microsoft Word (or WordPad) by waiting for the busy icon to disappear and the word *Listening* to appear; then say:
SHOW NUMBERS
Say the number that covers the **Close** box.
Say **OK**.
When asked to save, say **Don't Save**.

10. Say **STOP LISTENING** to suspend the speech microphone.

DIGITAL SNAPSHOT — Your Microphone and Other Settings

You can access many options and settings by right-clicking on the speech UI or by saying SHOW SPEECH OPTIONS. When the pop-up menu appears, you can make the selections that are illustrated in Digital Snapshot B-7. For example, you can rerun the tutorial by saying START SPEECH TUTORIAL or add words to your dictionary by saying OPEN THE SPEECH DICTIONARY.

Do not overlook your audio settings. You should readjust your audio settings if one of the following occurs:

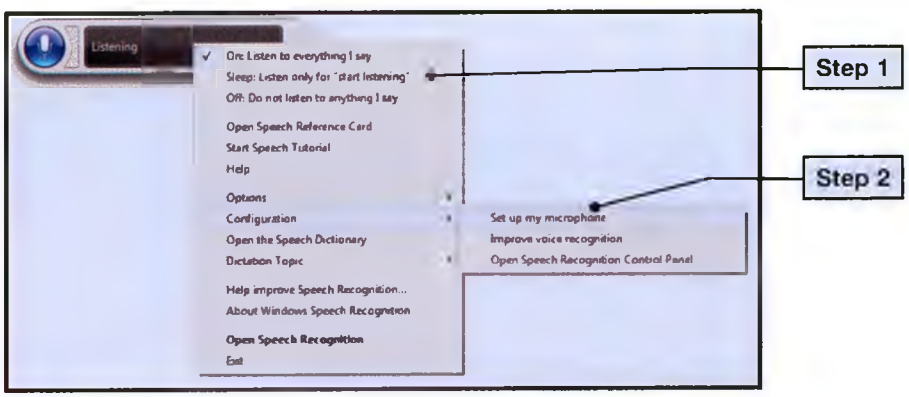
- Your background noises or acoustic conditions change.
- There is a noticeable decline in your recognition accuracy.
- Another person used this speech system before you.

There are two ways to open the microphone settings feature:

1. Turn on your microphone, and say SHOW SPEECH OPTIONS. Say CONFIGURATION followed by SET UP MY MICROPHONE as seen in Digital Snapshot B-7. Follow the instructions.

-or-

2. Right-click on your speech UI. Choose CONFIGURATION followed by SET UP MY MICROPHONE as seen in Digital Snapshot B-7. Read and follow the instructions.



DIGITAL SNAPSHOT B-7
Microphone Settings

INTO THE CLOUD

With Microsoft Speech Recognition, your writing is not limited by your typing speed or the pace of your pencil across a notepad. You can think, speak, write, and type at the same time. Speech recognition is a powerful tool for both business needs and personal productivity.

In the remaining lessons of Appendix B, you will learn to write with your PC at the speed of your speech—far faster than anyone can key on a keyboard. You may become more efficient, more employable, and you will probably enjoy writing much, much more. Another advantage of learning to efficiently use speech recognition is that you can reduce your risk of carpal tunnel-related typing injuries.

Like all components of a computer, there is much to learn about how to use speech recognition properly and efficiently. To learn more about this feature and its tools, please refer to the complete appendix at the product web site: *www.cengage.com/school/keyboarding/digitools*. Once there, go to the tab that says "Appendix B".

Appendix C

Number and Symbol Keys

Lesson C-1	New Keys 8 and 1
Lesson C-2	New Keys 9 and 4
Lesson C-3	New Keys 0 and 5
Lesson C-4	New Keys 7 and 3
Lesson C-5	New Keys 6 and 2
Lesson C-6	New Keys / and $
Lesson C-7	New Keys % and -
Lesson C-8	New Keys # and &
Lesson C-9	New Keys (and)
Lesson C-10	New Keys ' and "
Lesson C-11	New Keys _ and *
Lesson C-12	New Keys @ and +
Lesson C-13	New Keys ! and \
Lesson C-14	New Keys = and [ ]
Lesson C-15	New Keys > and <
Lesson C-16	Numeric Keypad 4, 5, 6, 0
Lesson C-17	Numeric Keypad 7, 8, 9
Lesson C-18	Numeric Keypad 1, 2, 3
Lesson C-19	Subtraction & Multiplication
Lesson C-20	Division

LEARN ABOUT NUMBERS AND SYMBOLS

INSTANT MESSAGE

To learn about U.S. Space Camp, visit the website at http://www.spacecamp.com.

Numbers—how would people communicate without them? Numbers tell time, dates, distances, and amounts. They allow you to see how much you must pay for a new computer game. They let you give an exact street address. They tell you how to reach a friend on a cell phone. Numbers let you say how many miles you must travel if you plan to attend the U.S. Space Camp-Academy in Huntsville, Alabama.

Numbers let people learn and share information in a precise way. Because numbers are precise, keying them accurately is important. In this appendix, you will learn to key numbers using both the top row of the keyboard and the numeric keypad. You also will learn to key symbols found on the keyboard.



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FIGURE C-1
At the U.S. Space Camp-Academy in Huntsville, Alabama, young people learn about space travel.

LESSON C-1 New Keys 8 and 1

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for 8 and 1.
2. Improve skill on straight-copy sentences.

Activity C-1 NEW KEYS 8 AND 1

1. Using Figures C-2, C-3, and C-4 as references, key each line shown below twice.

2. If time permits, rekey lines 7–9.



FIGURE C-2
Reference Keyboard for 1 and 8

Learn 8

```
1 k 8 k 8|kk 88 kk 88|k8k k8k|88k 88k|8k8 8k8|k8 k8;
2 Add the figures 8 and 888. Only 8 of 88 finished.
3 Felipe lives at 88 Pine; Oscar lives at 88 Spruce.
```

Learn 1

```
4 a 1 a 1|aa 11 aa 11|a1a a1a|11a 11a|1a1 1a1|a1 a1;
5 Key the figures 11 and 111. Read pages 11 to 111.
6 Travis keyed 1 instead of 11; I keyed 111, not 11.
```

Combine 8 and 1

```
7 His time was 8 min. 1 sec.; mine was 8 min. 8 sec.
8 June 18 was the day Ricardo Santo biked 181 miles.
9 Jane keyed 818 and 181; Michael keyed 811 and 118.
```

Technique Tip

Keep the fingers not being used to tap the number key anchored to the home keys.



FIGURE C-3
8 Right Middle Finger

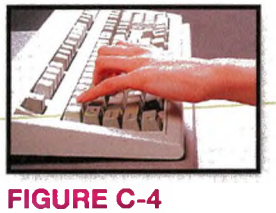


FIGURE C-4
1 Left Little Finger

MicroType

Use MicroType Numeric Keyboarding Lesson 1 for additional practice.

LESSON C-2 New Keys 9 and 4

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for 9 and 4.

Activity C-2 NEW KEYS 9 AND 4

1. Using Figures C-5, C-6, and C-7 as references, key each line below twice.

2. If time permits, rekey lines 7–9.



FIGURE C-5
Reference Keyboard for 4 and 9

Learn 9

```
1 l 9 l 9|ll 99 ll 99|l9l l9l|99l 99l|919 919|l9 l9;
2 My baseball number is 9; my football number is 99.
3 There were 999 racers; only 9 of the 999 finished.
```

Learn 4

```
4 f 4 f 4|ff 44 ff 44|f4f f4f|44f 44f|4f4 4f4|f4 f4;
5 He read pages 4 to 44. Janet has 44 extra points.
6 Tim added 4, 44, and 444. Jason scored 44 points.
```

Combine 9 and 4

```
7 Jay scored 44 of the 99 points; Joe had 49 points.
8 Is his average .449 or .494? Today it is at .449.
9 She keyed a 49 rather than a 94 in the number 494.
```



FIGURE C-6
9 Right Ring Finger



FIGURE C-7
4 Left Index Finger

MicroType
Use MicroType Numeric Keyboarding Lesson 2 for additional practice.

LESSON C-3 New Keys 0 and 5

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for 0 and 5.
2. Improve skill at keying copy with numbers.

Activity C-3 NEW KEYS 0 AND 5

1. Using Figures C-8, C-9, and C-10 as references, key each line below twice.

2. If time permits, rekey lines 7–9.



FIGURE C-8
Reference Keyboard for 0 and 5

Learn 0

```
1 ; 0 ; 0|;; 00 ;; 00|;0; ;0;|00; 00;|0;0 0;0|0; 0;0
2 Reach from the ; to the 0. The license was 00H00.
3 Kia keyed 000 after the decimal; Tonya keyed 0000.
```

Learn 5

```
4 f 5 f 5|ff 55 ff 55|f5f f5f|55f 55f|5f5 5f5|5f 5f;
5 Ken had 55 points on the quiz; Jay also scored 55.
6 Of the 55 exhibits, only 5 won grand prize awards.
```

Combine 0 and 5

```
7 Debra told us the number was 505.550, not 550.505.
8 Lance hit .500 during July and .505 during August.
9 Orlando bought 500 pounds of grain on September 5.
```

MicroType
Use MicroType Numeric Keyboarding Lesson 3 for additional practice.



FIGURE C-9
0 Right Little Finger



FIGURE C-10
5 Left Index Finger

Activity C-4 KEYING NUMBERS

Technique Tip

Reach up without moving your hands away from your body.

Key each line twice.

```
1 Mario dialed 594.1880 instead of dialing 495.1880.
2 He drove 598 miles one day and 410 miles the next.
3 He bowled 98, 105, and 94 the last time he bowled.
4 Orlando said the odometer read 58,940 on March 15.
```

checkpoint

Do your fingers remain curved when you reach to the top row?

LESSON C-4 New Keys 7 and 3

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for 7 and 3.
2. Improve skill at keying copy with numbers.

Activity C-5 NEW KEYS 7 AND 3

1. Using Figures C-11, C-12, and C-13 as references, key each line below twice.

2. If time permits, rekey lines 7–9.



FIGURE C-11
Reference Keyboard for 3 and 7



FIGURE C-12
7 Right Index Finger

Learn 7

```
1 j 7 j 7|jj 77 jj 77|j7j j7j|77j 77j|7j7 7j7|7j 7j;
2 Of the 77 computers, 7 are connected to a printer.
3 The highest score on the March 7 exam was only 77.
```

Learn 3

```
4 d 3 d 3|dd 33 dd 33|d3d d3d|33d 33d|3d3 3d3|3d 3d;
5 Dr. Ho used only 33 of the original 333 questions.
6 She scheduled quizzes on January 3 and on April 3.
```



FIGURE C-13
3 Left Middle Finger

Combine 7 and 3

7 Melanie scored only 73 on the July 3 exam, not 77.
8 Sandra answered 37 of the 73 questions in an hour.
9 Jessie bowled 73, Mike bowled 77, and I bowled 73.

Activity C-6 TAB KEY

MicroType
Use MicroType Numeric Keyboarding Lesson 4 for additional practice.

Key each line twice. Tap ENTER twice between sets of lines.

1 5 tab → 10 tab → 394 tab → 781 tab → 908
2 9 tab → 45 tab → 703 tab → 185 tab → 731
3 4 tab → 81 tab → 930 tab → 507 tab → 405
4 7 tab → 30 tab → 585 tab → 914 tab → 341
5 3 tab → 79 tab → 485 tab → 180 tab → 789

DigiTip: Click the ***Show/Hide*** button to see the TAB characters on your screen. ¶ Show/Hide Button

LESSON C-5 New Keys 6 and 2

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for **6** and **2**.
2. Improve skill at keying copy with numbers.

Activity C-7 NEW KEYS 6 AND 2

1. Using Figures C-14, C-15, and C-16 as references, key each line below twice.

2. If time permits, rekey lines 7–9.



FIGURE C-14
Reference Keyboard for 2 and 6



FIGURE C-15
6 Right Index Finger



FIGURE C-16
2 Left Ring Finger

Learn 6

1 j 6 j 6|jj 66 jj 66|j6j j6j|66j 66j|6j6 6j6|6j; 6j
2 There were 66 entries. All 66 competed yesterday.
3 He said 76 trombones. I said that is not correct.

Learn 2

4 s 2 s 2|ss 22 ss 22|s2s s2s|22s 22s|2s2 2s2|2s; 2s
5 Of the 222 items, Charlton labeled 22 incorrectly.
6 The 22 girls may play 2 games against the 22 boys.

Combine 6 and 2

7 Monique has gone 262 miles; she has 26 more to go.
8 March 26, August 26, and October 26 are the dates.
9 Just 26 more days before Gilberto is 26 years old.

Activity C-8 KEYING NUMBERS

Technique Tip

Keep your forearms parallel to the slant of the keyboard.

Key each line twice.

Straight copy

1 Jose moved from 724 Park Lane to 810 State Street.
2 Marcos was 3 minutes and 56 seconds behind Carlos.

Rough draft

3 Mrs. kendall shall the prac tice will be June 30.
4 Flight No. 3875 leaves at 6:45 a.m. on October 13.

MicroType

Use MicroType Numeric Lesson 5 for additional practice.

LESSON C-6 New Keys / and $

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for / and **$**.
2. Combine / and **$** with other keys.

Activity C-9 NEW KEYS / AND $

1. Using Figures C-17, C-18, and C-19 as references, key each line twice.

2. If time permits, rekey lines 7–9.



FIGURE C-17
Reference Keyboard for / and $

Learn / (diagonal)

```
1 ; / ; /|;; // // ;;|;/; /;/|/p; /p/|/;p /;p|p/; /;
2 He keyed the date as 05/17/05 instead of 05/17/06.
3 Toua added 3 3/4 and 4 1/2 and came up with 8 1/4.
```

Learn $ (dollar sign)

```
4 f $ f $|f rr $$ f rr $$|f r $ f r $|r$f r$f|$fr $f
5 $102.93 and $48.76 and $547.29 and $9.86 and $1.03
6 I owed $502.78 for February and $416.39 for March.
```

Spacing Tip

Do not space between a figure and the / or the $

Combine / and $

```
7 Rae paid $30 for 2 1/2 lbs. I paid $15 for 1 1/4.
8 On 06/17/05 I paid $898. On 07/15/05 I paid $608.
9 The terms were 2/10, n/30 for the $594.76 he owed.
```

MicroType

Use MicroType Numeric Keyboarding Lesson 7 for additional practice.



FIGURE C-18
/ Right Little Finger



FIGURE C-19
$ Left Index Finger + Right Shift

LESSON C-7 New Keys % and -

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for % and -.
2. Combine % and - with other keys.

Activity C-10 NEW KEYS % AND -

1. Using Figures C-20, C-21, and C-22 as references, key each line below twice.

2. If time permits, rekey lines 7–9.



FIGURE C-20
Reference Keyboard for % and -

Learn % (percent sign)

```
1 f % f %|ff %% ff %%|f%f f%f|%%f %%f|%8% %f%|%f; %f
2 You will give 5%, 10%, or 15% off all sales today.
3 About 45% voted yes to the increase; 55% voted no.
```

Learn – (hyphen)

```
4 ; - ; -|;; -- ;; --|;-; ;-;|--; --;|-;- ;-;|-;- -;
5 Rebecca rated each film 1-star, 2-star, or 3-star.
6 She has 1-, 2-, and 3-bedroom apartments for rent.
```

Spacing Tip

Do not space between a figure and the % or the -.

Combine % and –

```
7 Merely 5% of the 3-bedroom apartments were vacant.
8 The fifteen-story building is 85% to 90% occupied.
9 About 15% of the women read the up-to-date report.
```

MicroType

Use MicroType Numeric Keyboarding Lesson 8 for additional practice.



FIGURE C-21
% Left Index Finger + Right Shift



FIGURE C-22
- Right Little Finger

LESSON C-8 New Keys # and &

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for # and &.
2. Combine # and & with other keys.

Activity C-11 NEW KEYS # AND &

1. Using Figures C-23, C-24, and C-25, key each line below twice.
2. If time permits, rekey lines 7–9.



FIGURE C-23
Reference Keyboard for # and &

Learn # (number/pounds)

```
1 d E # d E #|d # d #|d#d d#d|#d3# #d3#|D e #; D e #
2 Orders #673, #677, and #679 still need to be done.
3 Checks #841, #842, and #845 are still outstanding.
```

Learn & (ampersand)

```
4 j U & j U &|j & j &|j&j j&j|&j7& &j7&|J u &; J u &
5 Sanchez & Johnson; Barns & Kennedy; Scott & Fitzer
6 I went to the law firm of Matsui & Alou on Friday.
```

Combine # and &

```
7 Purchase orders #824 and #901 were for Dunn & Cey.
8 We ordered 30# of #298 grass seed for G & G Grass.
9 Check #38 was from Brown & Smith, not Cray & Retz.
```

Spacing Tip

Do not space between # and a figure. Space once before and after & used to join names.



FIGURE C-24
Left Middle Finger + Right Shift



FIGURE C-25
& Right Index Finger + Left Shift

MicroType

Use MicroType Numeric Keyboarding Lesson 9 for additional practice.

LESSON C-9 New Keys (and)

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for (and).
2. Combine (and) with other keys.

Activity C-12 NEW KEYS (AND)

1. Using Figures C-26, C-27, and C-28 as references, key each line below twice.

2. If time permits, rekey lines 7–8.



FIGURE C-27
(Right Ring Finger + Left Shift



FIGURE C-28
) Right Little Finger + Left Shift



FIGURE C-26 Reference Keyboard for (and)

Learn ((left parenthesis)

```
1 l o ( l o (|l ( l (|(l (l|l(o( l(o(|l9( l9(|(l( o(
2 (1, (2, (3, (4, (5, (6, (7, (8, (9, (10, (11, (12,
3 The shift of 9 is (. Use the l finger to key (9(.
```

Learn) (right parenthesis)

```
4 ; p ) ; p )|; ) ; )|); );|;)p) ;)p)|;0) ;0)|);) p)
5 1), 2), 3), 4), 5), 6), 7), 8), 9), 10), 11), 12),
6 The shift of 0 is ). Use the ; finger to key )0).
```

Combine (and)

```
7 He keyed two numbers (2 and 4) and one letter (Z).
8 The order (#397) was shipped last Tuesday (May 1).
```

Activity C-13 KEYING NUMBERS

MicroType
Use MicroType Numeric Keyboarding Lesson 10 for additional practice.

Key each line twice.

```
1 My next games are on May 19 and 20.
2 Beth spent $378,465 on the project.
3 Helen paid $4,378 for 150 shares of USB.
4 Johan paid $8,692 for 100 shares of IBM.
5 The dates were June 18, June 30, and July 27.
6 Gomez was hitting .459 on Thursday, April 26.
```

LESSON C-10 New Keys ' and "

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for ' and ".
2. Combine ' and " with other keys.

Activity C-14 NEW KEYS ' AND "

1. Using Figures C-29, C-30, and C-31, key each line below twice.

2. If time permits, rekey lines 7–9.



FIGURE C-29
Reference Keyboard for ' and "

Learn ' (apostrophe)

```
1 ; ' ; '|;; '' ;; ''|;'; ;';|'p' 'p'|'0' '0'|'9' 's
2 isn't, aren't, can't, don't, you're, what's, let's
3 Isn't the rock 'n' roll troupe performing tonight?
```

Learn " (quotation mark)

```
4 ; " ; "|;; "" ;; ""|;"; ;";|"p" "p"|"0" "0"|"9" "s
5 Tom said, "I can fix it." Janet said, "So can I."
6 I think the theme for "2005" was "New Beginnings."
```

DidiTip

On your screen, apostrophes and/or quotation marks may look different from those shown in these lines. Even if they look different, the marks serve the same purpose.

Combine ' and "

```
7 "If it is Guido's," he said, "I'll ask to use it."
8 I used the contractions "wouldn't" and "couldn't."
9 I said, "Do I use 's or s'?" He replied "Use 's."
```

MicroType

Use MicroType Numeric Keyboarding Lesson 11 for additional practice.



FIGURE C-30
' Right Little Finger



FIGURE C-31
" Right Little Finger + Left Shift

LESSON C-11 New Keys _ and *

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for _ and *.
2. Combine _ and * with other keys.

Activity C-15 NEW KEYS _ AND *

1. Using Figures C-32, C-33, and C-34 as references, key each line below twice.

2. If time permits, rekey lines 7–9.



FIGURE C-32
Reference Keyboard for * and _



FIGURE C-33
_ Right Little Finger + Left Shift



FIGURE C-34
* Right Middle Finger + Left Shift

Learn __ (underline)

```
1 ; _ ;_|;; __ ;; __|_; ;_;|:_: :_:|_and_ _and_|_;_:
2 1_ 2_ 3_ 4_ 5_ 6_ 7_ 8_ 9_ 10_ 11_ 12_ 13_ 14_ 15_
3 Street Address: _____ City: _____
```

Learn * (asterisk)

```
4 k * k *|*K* *K*|k I * k I *|ki* ki*|*k; *k;|*.* *.
5 *abc* *def* *ghi* *jkl* *mno* *pqr* *stu* *vwx yz*
6 Use *(s) in place of unprintable words **********.
```

Combine __ and *

```
7 *Cody keyed ___-__-____ for them to key their SS#.
8 Key 6 x 8 equals ___ rather than 6 * 8 equals __.
9 Jack said, "This symbol (*) is called an _____."
```

Activity C-16 KEYING NUMBERS

MicroType

Use MicroType Numeric Keyboarding Lesson 12 for additional practice.

Key each line twice.

```
1 I was 13 years old in 2005, not 14.
2 Only 98 of the 1,367 kids finished.
3 My phone number was changed to 175-8369.
4 I took 420 feet of pipe for the project.
5 Mr. Dean ordered 140 computers on October 25.
6 He received the bill for $136,786 on April 9.
```

gwam 20" | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 |

LESSON C-12 New Keys @ and +

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for @ and +.
2. Combine @ and + with other keys.

Activity C-17 NEW KEYS @ AND +



FIGURE C-36
@ Left Ring Finger + Right Shift



FIGURE C-37
+ Right Little Finger + Left Shift

1. Using Figures C-35, C-36, and C-37 as references, key each line below twice.

2. If time permits, rekey lines 7–9.



FIGURE C-35
Reference Keyboard for @ and +

Learn @ (at sign)

```
1 s @ s @|ss @@ ss @@|s@s s@s|@s@ @s@|5 @ 25 5 @ 25;
2 yorkmb@nyu.edu, smithj@charter.net, jonesjc@ku.edu
3 50 shares of PEP @ $51.25; 25 shares of INTC @ $27
```

Learn + (plus)

```
4 ; + ; +|;; ++ ;; ++| 1 + 2 + 5 = 8|1 + 12 + 5 = 18
5 If you add 30 + 15 + 17 + 8 + 19, you will get 89.
6 Tom and Jay added 6 + 17 + 39 and came up with 62.
```

MicroType

Use MicroType Numeric Keyboarding Lesson 13 for additional practice.

Combine @ and +

7 The figures include 16 @ .69 + 10 @ .38 + 7 @ .49.
8 Jonathan added $1.20 (6 @ .20) + $5.80 (4 @ 1.45).
9 Jay's check was for 5 hrs. @ 5.00 + 6 hrs. @ 7.50.

LESSON C-13 New Keys ! and \

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for ! and \.
2. Combine ! and \ with other keys.

Activity C-18 NEW KEYS ! AND \

1. Using Figures C-38. C-39, and C-40 as references, key each line below twice.

2. If time permits, rekey lines 4–6.



FIGURE C-39
! Left Little Finger + Right Shift



FIGURE C-40
\ Right Little Finger



FIGURE C-38
Reference Keyboard for ! and \

Learn ! (exclamation point)

1 a ! a !|a! a! a!|!a! !a!|No! No!|Yes! Yes!|Ohhh!
2 Don't do that! What a shock! I don't believe it!
3 Leave two spaces after ! at the end of a sentence.

Learn \ (backslash)

4 ; \ ; \|C:\ C:\|D:\tests\Unit 1 D:\Test 12\Unit 23
5 He mapped the drive to access \\spss 25\deptdir56.
6 The complete file name is C:\Unit 1\Lsn 14\Part A.

Activity C-19 KEYING NUMBERS AND SYMBOLS

MicroType
Use MicroType Numeric Keyboarding Lesson 14 for additional practice.

Key each line twice.

1 About 60% (451 of 752) of the 1983 class attended.
2 The ZIP Code for 382 Hampton Avenue is 97405-1693.
3 Deliver 120 lbs. of #6 nails to project #493-587A.
4 The computer (1849Z3760) was delivered on June 25.
5 She paid $248,739 for the 1560 Michelangelo print.
6 Your check (#1549) for $260.38 arrived on July 17.

gwam 20" | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |

LESSON C-14 New Keys = and [ ]

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for = and [ ].
2. Combine = and [ ] with other keys.

Activity C-20 NEW KEYS = AND [ ]

1. Using Figures C-41, C-42, C-43, and C-44 as references, key each line below twice.

2. If time permits, rekey lines 8–9.



FIGURE C-41
Reference Keyboard for =, [, and]

Learn = (equal sign)

1 ; = ; =|;; == ;; ==|;=; =;=|=;= =;=|;/= ;/=|+=; +=
2 If a = b + c and c = 10 and a = 15, what does b =?
3 If 3a = 15, what does a =? If 10b = 30, b = what?



FIGURE C-42
= Right Little Finger

Learn [(left bracket)

```
4 ; [ ; [|;; [[ ;; [[|[a[ [B[ [c[ [D[ [e[ [F[ [g[ [H
5 [I [j [K [l [M [n [O [p [Q [r [S [t [U [v [W [x [Y
```

Learn] (right bracket)

```
6 ; ] ; ]|;; ]] ;; ]]|1] 2] 3] 4] 5] 6] 7] 8] 9] 10]
7 10a] 11b] 12c] 13d] 14e] 15f] 16g] 17f] 18g] 19h];
```

Combine = and [and]

```
8 My next problem was [a + b/6] + 12/2 = c/6 + 30/3.
9 I used the [ and ] to set off names [Jay], [Mike].
```

MicroType

Use MicroType Numeric Lesson 15 for additional practice.



FIGURE C-43
[Right Little Finger



FIGURE C-44
] Right Little Finger

LESSON C-15 New Keys > and <

IN THIS LESSON YOU WILL:

Objectives

1. Learn reach technique for > and <.
2. Combine > and < with other keys.

Activity C-21 NEW KEYS > AND <

1. Using Figures C-45, C-46, and C-47 as references, key each line below twice.

2. If time permits, rekey lines 7–9.



FIGURE C-45
Reference Keyboard for < and >

Learn > (greater than sign)

```
1 l > l>|L>l L>l|l.> l.>|15 > 10 15 > 10|3 > 2 3 > 2
2 26 > 25; 108 > 98; a + b is > b + c; 128 + a > 133
3 Use the symbol (>) for greater than (A > C + 8/2).
```

Learn < (less than sign)

```
4 k < k <|k,< k,<|k<b, k<b,|1 < 2 1 < 2|2 < 3 2 < 3;
5 16 < 17 < 18 < 19 < 20; 36 < 37 < 38 < 39 < 40 < X
6 Use this symbol (<) for less than. He said a < b.
```

Combine > and <

MicroType

Use MicroType Numeric Keyboarding Lesson 16 for additional practice.

```
7 Yes, 90% of them scored > 76% and 9% scored < 76%.
8 Twelve of the boys understood the < and > concept.
9 Maria and I set the merge fields off with < and >.
```



FIGURE C-46
> Right Ring Finger + Left Shift



FIGURE C-47
< Right Middle Finger + Left Shift

LESSON C-16 Numeric Keypad 4, 5, 6, 0

IN THIS LESSON YOU WILL:

Objectives

1. Learn numeric keypad operating position.
2. Learn to access the Calculator program.
3. Learn reachstrokes for 4, 5, 6, and 0.

NUMERIC KEYPAD OPERATING POSITION



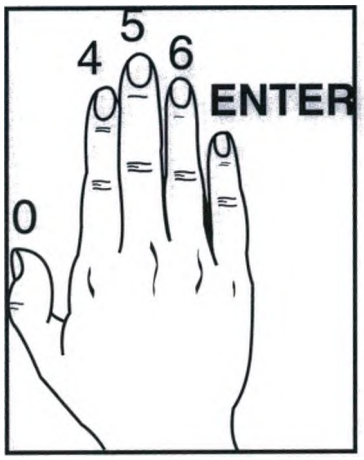


FIGURE C-48
Home keying position for numeric keypad.

Position yourself at the keyboard as shown in Figure 3-4 in Chapter 3. Sit in front of the keyboard with the book at the right—body erect, both feet on the floor.

Curve the fingers of your right hand and place them on the numeric keypad. Use the little finger for the ENTER key as indicated in Figure C-48. To key the numbers, place the:

- Index finger on **4**.
- Middle finger on **5**.
- Ring finger on **6**.
- Thumb on **0**.

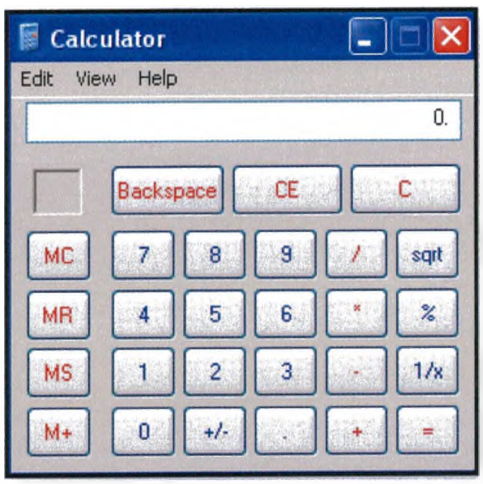


FIGURE C-49
Calculator Window

Activity C-22 HOW TO ACCESS THE CALCULATOR PROGRAM

You will use the Calculator program on your computer to learn and practice the numeric keypad. Follow the instructions given below to access the Calculator.

1. Click the **Start** button on the taskbar.
2. Click **All Programs**, then **Accessories**.
3. Click Calculator. The Calculator window will open, as shown in Figure C-49.

Use the Calculator program to complete the addition drills shown below.



FIGURE C-50
Reference Keyboard for 4, 5, 6, and 0

DigiTip You may need to tap the NUM (NUMBER) LOCK key (located above the 7 on the numeric keypad).

1. Using Figure C-50 as a reference, key the first number with the proper finger and tap the + key with the little finger of the right hand.
2. Key the next number and tap the + key.
3. After entering the last black number in the column and tapping the + key, verify your answer with the answer shown in color.
4. Tap ESC on the main keyboard to clear the number. Then do the next problem.

DRILL 1

A	B	C	D	E
4	5	6	4	6
4	5	6	5	4
8	10	12	9	10

DRILL 2

A	B	C	D	E
44	55	44	45	56
55	66	66	46	45
99	121	110	91	101

DRILL 3

A	B	C	D	E
45	54	46	44	64
56	64	65	56	46
64	56	45	65	55
165	174	156	165	165

DRILL 4

A	B	C	D	E
40	40	60	506	504
50	60	50	406	406
60	50	40	540	560
150	150	150	1,452	1,470

Technique Tip

- *Tap each key quickly with the tip of the finger.*
- *Keep the fingers curved and upright.*
- *Use the side of the right thumb to tap the 0 similar to the way you tap the Space Bar.*

DRILL 5

A	B	C	D	E
54	504	405	605	450
50	605	506	406	406
56	406	604	540	605
160	1,515	1,515	1,551	1,461

MicroType

Use MicroType Numeric Keypad Lesson 1 for additional practice.

checkpoint

Did you check each answer against the book?

LESSON C-17 Numeric Keypad 7, 8, 9

IN THIS LESSON YOU WILL:

Objectives

1. Learn reachstrokes for 7, 8, and 9.
2. Combine the 7, 8, and 9 keys with other keys.

Activity C-24 7, 8, AND 9



FIGURE C-51
Reference Keyboard for 7, 8, and 9
7 Index Finger
8 Middle Finger
9 Ring Finger

DRILL 1 7

A	B	C	D	E
577	607	747	667	756
774	575	70	75	707
757	740	675	757	574
2,108	1,922	1,492	1,499	2,037

DRILL 2 8

A	B	C	D	E
808	680	884	458	800
484	584	480	684	68
586	868	856	880	548
1,878	2,132	2,220	2,022	1,416

DRILL 3 9

A	B	C	D	E
459	954	496	944	964
596	609	965	596	469
964	596	459	659	595
2,019	2,159	1,920	2,199	2,028

DRILL 4 All numbers learned

MicroType

Use MicroType Numeric Keypad Lesson 2 for additional practice.

A	B	C	D	E
409	740	695	509	594
507	964	570	476	807
608	850	409	840	560
1,524	2,554	1,674	1,825	1,961

LESSON C-18 Numeric Keypad 1, 2, 3

IN THIS LESSON YOU WILL:

Objectives

1. Learn reachstrokes for 1, 2, and 3.
2. Combine the 1, 2, and 3 keys with other keys.

Activity C-25 1, 2, AND 3



FIGURE C-52
Reference Keyboard for 1, 2 and 3
1 Index Finger
2 Middle Finger
3 Ring Finger

DRILL 1 1

A	B	C	D	E
171	916	147	415	156
814	151	811	611	417
151	110	901	718	901
1,136	1,177	1,859	1,744	1,474

DRILL 2 2

A	B	C	D	E
202	289	722	290	256
425	524	208	724	728
726	262	526	282	249
1,353	1,075	1,456	1,296	1,233

DRILL 3 3

A	B	C	D	E
453	453	303	734	368
396	309	963	583	493
363	396	357	639	735
1,212	1,158	1,623	1,956	1,596

DRILL 4 All numbers learned

MicroType

Use MicroType Numeric Keypad Lesson 3 for additional practice.

A	B	C	D	E
429	710	195	325	914
537	264	570	176	827
608	350	432	840	360
1,574	1,324	1,197	1,341	2,101

LESSON C-19 Subtraction and Multiplication

IN THIS LESSON YOU WILL:

Objectives

1. Learn subtraction on the numeric keypad.
2. Learn multiplication on the numeric keypad.

Activity C-26 SUBTRACTION



FIGURE C-53
Reference Keyboard-Little Finger

Use the Calculator program to complete the subtraction drills shown below.

1. Using Figure C-53 as a reference, key the first number and tap the – key.

2. Key the second number and tap the ENTER key.

DRILL 1

A	B	C	D	E
907	872	614	730	756
- 489	- 312	- 459	- 583	- 621
418	560	155	147	135

DRILL 2

A	B	C	D	E
509	847	625	913	810
- 293	- 764	- 501	- 264	- 398
216	83	124	649	412

Activity C-27 MULTIPLICATION

Use the Calculator program to complete the multiplication drills shown below.

1. Using Figure C-54 for reference, key the first number and tap the * key.

2. Key the second number and tap the ENTER key.



FIGURE C-54
Reference Keyboard for • Ring Finger

DRILL 3

A	B	C	D	E
96	75	84	40	132
x 40	x 46	x 73	x 28	x 19
3,840	3,450	6,132	1,120	2,508

DRILL 4

A	B	C	D	E
405	697	803	467	371
x 208	x 50	x 32	x 140	x 62
84,240	34,850	25,696	65,380	23,002

LESSON C-20 Division

IN THIS LESSON YOU WILL:

Objectives

1. Learn division on the numeric keypad.

Activity C-28 DIVISION



FIGURE C-55
Reference Keyboard for Division / Middle Finger

Use the Calculator program to complete the division drills shown below.

1. Using Figure C-55 as a reference, key the dividend and tap the / key.
2. Key the divisor and tap the ENTER key.
3. Round answers to two decimal places.

DRILL 1

A	B	C	D	E
120.6	79	90.33	119	70.8
5/603	11/869	6/542	8/952	10/708

DRILL 2

A	B	C	D	E
21.65	64.49	197.51	95.56	134.58
23/498	79/5,095	43/8,493	62/5,925	67/9,017

Glossary

acceptable use policies (AUPs) Rules to guide users in the use of their computer.

accountants Individuals who have skills in finance and accounting; they record, interpret, and communicate information about the finances of a business.

accounting The recording, interpreting, and communicating of information about the finances of a business.

active application The window that has been selected and appears on top of other open windows.

active cell Highlighted worksheet cell, ready for data entry.

agenda Document created to help organize meetings, events, and groups of people.

align left Alignment in which text lines up straight (flush) along the left margin but leaves text jagged on the right margin.

align right Alignment in which text lines up flush along the right margin but leaves text jagged on the left margin.

American Institute of Certified Public Accountants (AICPA) The professional organization of CPAs.

amortization table A list, month-by-month, of exactly how much interest is being paid compared to the principal being paid.

angle bracket The symbols enclosing the code that sends commands to a browser.

annual percentage rate (APR) The interest rate charged over the period of a year.

annual rate The rate of pay for an entire year of work.

applicant Prospective employee.

application Specialized software programs with a specific purpose. Also called *programs* or *software*.

apprentice A person who works for a company temporarily in order to gain valuable, real-life work experience.

apprenticeships Program of temporary, supervised work designed to give workers experience in a particular job.

apps Mini-applications or programs that can be placed on your desktop.

archive To store both writing and images for later retrieval.

arithmetic operators Operators used by spreadsheets to add (+), subtract (–), multiply (*), and divide (/).

ascending Ordered from the beginning of the alphabet, the lowest number, or the earliest date.

attribute Special quality that allows a coder to include more information in a single tag in XHTML and XML.

Auto Fill An Excel shortcut for entering data into a worksheet, which remembers things users have entered in the past and immediately fills in cells as the user begins typing.

Average function A special function in Excel which does not use operators to calculate the average of a set of values.

Backspace The key used to delete characters to the left of the cursor.

bankruptcy The inability to pay creditors (when debt grows larger than the ability to pay back the money).

bar chart Chart that uses bars of varying heights to illustrate values in a worksheet.

bitmap (.bmp) An image translated into tiny squares—or dots—and given a mathematical value and translated into colors. These images are easy to manipulate in Microsoft Office applications.

Boolean operators Operators used to filter results based upon a YES or NO ranking system.

brightness Determines how light or dark pixels are inside an image.

browser Software application that allows users to find content, Web pages, and online multimedia.

bubble (Housing bubble) A situation in which the price of real-estate went way above the actual value of the properties.

bulleted list A way to organize specific details in an accessible and easy-to-read manner.

business plan A written document that explains and evaluates business prospects.

cached A page that has been saved by the browser in case the original page is unavailable.

candidate Prospective employee.

capital The amount of money needed to finance a business.

Caps Lock A key is used to key a series of capital letters.

Cascading Style Sheet (CSS) An HTML enhancement that brings similar styles and color schemes to websites with multiple pages.

case Refers to the capitalization of a word.

cell reference Identifies a worksheet cell by the column letter and row number.

cells A container for data; where a row and column intersect in a table.

center Alignment in which text is placed exactly mid-way between the margins.

centerline The middle point of a page, measured from left to right.

central processing unit (CPU) Component that contains the microprocessor, often called the "brains" of a computer.

Certified Public Accountant (CPA) Individual who has a degree in accounting, has on-the-job experience, and has passed an examination by the AICPA.

chronological order In order by date or sequence.

chronological resume A resume which lists work experience, education, skills, and achievements in order by date.

clip art A collection of copyright-free images and graphics.

clipboard A temporary holding space for content that has been cut or copied in a document.

closing tag The end of code (a command) to a Web browser.

color scheme Collections of complementary and contrasting colors that look good together.

column chart Chart that uses rectangles of varying heights to illustrate values in a worksheet.

column heading In a table, the text that appears across the top (first row) of the table indicating the content of each column.

columnar outline An outline format used if you need to create lists, such as list of words and their definitions.

compiled The process of converting codes into Web pages.

component Computer hardware that can be internal or external and that receives instructions from the computer's operating system (OS).

compound interest Interest charged on both principal and accruing interest.

contrast The difference between the dark and light pixels in an image.

Control Panel Powerful utilities that can change the way your computer works, looks, and responds to your commands.

correspondence Letter writing and a variety of electronic media for conveying information.

Count function Excel function that counts the number of items in a set of data.

counteroffer An alternate proposal to a proposed salary.

creditor Someone who is owed money.

cross-platform When apps work on many platforms.

cut transition A transition that jumps from one slide to the next without any visible transition effect.

dash A symbol that can be used in place of a comma or a semicolon when emphasis is required. The em dash (—) is longer than a hyphen (-) and is very popular for use in books and other professional and academic reports.

database designer A person who develops massive databases for use in business.

database A collection of related information, stored in records, each made up of multiple fields.

debt When expenses exceed income.

debtor Someone who owes money.

department Teams within a company organized to accomplish mission-critical activities.

deprecated Code that is being downgraded, devalued, or even becoming obsolete.

descending Ordered from the end of the alphabet, the highest number, or the latest date.

dialog box A window that presents choices and selections for the computer or a computer program.

digital zoom A feature on some digital cameras which will zoom in on a subject, but image quality will be sacrificed if the zoom is too "tight" (close).

digitizing The process through which scanners save images. It breaks images down into tiny squares in a grid pattern. These tiny squares—or dots—are given a mathematical value and translated into colors.

directories Folders in which computers store files.

dissolve transition A transition that seems to dissolve the first image as the second image appears. Dissolves can be fast or slow and can be done a pixel or a dot at a time or in blocks or small squares.

dots per inch (DPI) A way of expressing resolution; often expressed in the number of rows and columns in the grid.

Dow Jones Industrial Averages (Dow or DJIA) An index (or list) of 30 of the top stocks that represent various categories (or sectors) of the economy.

drive The ability to work hard to achieve goals.

effective APR Includes the principal plus the interest plus fees.

electronic mail (e-mail) A type of digital message.

element A block of text or a chart, table, graphic, picture, footer, or header in a document.

ENTER In keyboarding, key is used to return the insertion point to the left margin and move it down one line.

expense Bills to be paid out.

exponent A mathematical notation indicating the number of times a quantity is multiplied by itself.

fade transition A transition that reduces or increases a slide's color intensity until its image disappears.

field Part of a record and contains a single piece of data for the subject of the record.

file A collection of saved information or data.

Fill Handle A little black square in the bottom right corner of the active cell. Click and drag the fill handle down to complete a sequence of data.

final round of interviews The set of interviews in which the person who will receive the job offer is selected.

finance The science of managing money or funds.

Flash A language used for writing codes to create Web pages.

flush Refers to the straight alignment along a margin or border of text.

folder Directories for storing data.

font style Determines the look of the letters in words.

forecasting Anticipating the financial future of a company.

foreclosure When a person cannot pay his or her mortgage and the bank takes the home back instead of getting the money that is owed on it.

form A database object that is used primarily to make entering or viewing data in a database more convenient.

Format Painter A tool that allows you to copy formatting from a selection of text to another selection of text.

formatting The artful arrangement, layout, and design of a document.

formula A mathematical expression used to solve calculations.

function Special formulas that do not use operators to calculate a result.

funds Another term for money.

gadget Mini-applications or programs that can be placed on your desktop.

gradient The gradual shift, line-by-line, from a solid color to another color.

graphical user interface (GUI) Uses pictures called icons to represent commands or programs.

graphics interchange format (.gif) An image format usually used for Internet images; a format that was created to provide compressed graphics that can transfer easily over low-speed connections.

grayscale Coloring which substitutes color for 256 gradations of gray, from black (0) to pure white (255).

Great Recession A recession which began in December 2007, during which the economy stopped growing for 31 months. It started with a real-estate or housing bubble.

gridlines The lines marking columns and rows in a table.

gross profit The actual sales revenue.

gross words a minute (gwam) The number of standard words keyed in one minute.

hackers Criminals that break into computer systems for unethical and illegal activities.

hardware The physical parts of any digital device that contains a microprocessor and that is designed to communicate.

hexadecimal Digits which operate on a base-16 number system rather than the base-10 number system normally used. Hexadecimal numbers use the letters A, B, C, D, E, and F along with the numbers 0 to 9 to create 16 different digits.

highlight Color shading behind text for emphasis.

home keys In keyboarding, the position in which the hands should be kept at all times while keying (left-hand fingers on f d s a and right-hand fingers on j k l ;).

homonym A word that sounds the same but has a different meaning like its and it's or their and there.

hourly rate Payment an employee receives for each hour he or she works.

HSB Color designation of hue, saturation, and brightness.

hue Refers to whether a color is red, green, blue, purple, and so forth.

hyperlink A way of connecting from one location to another on a Web page, connecting pages within a website, or connecting different websites.

hypertext markup language (HTML) Tags that give instructions to a Web browser that determine the look and feel of a Web document on the Internet.

hypertext reference (HREF) The location to which the coder wants the link to take the user.

hypertext transfer protocol (HTTP) A communication system that is used to transfer data over networks; specially used for HTML documents.

icon Picture used to represent commands.

imaging devices Tools that capture pictures, such as cameras, fax, and copy machines.

income Money coming in.

incorporation The process of creating a business.

information technology (IT) specialists are professionals who manage and protect computer network accounts from accidental mistakes and deliberate abuse. These workers are also sometimes called Network Administrators.

initial public offering (IPO) When a corporation initially puts shares up for sale through a stock exchange.

interest A fee charged by lenders to cover the risk of loaning money to someone, and to make a profit.

interface The mechanism through which users communicate with a computer or computer components communicate with each other.

Internal Revenue Service (IRS) The U.S. Government agency that answers tax questions and collects taxes.

Internet Corporation for Assigned Names and Numbers (ICANN) Organization responsible for Internet naming and numbering.

Internet service provider (ISP) Company that provides customer connections to the Internet and other services.

internships Program of temporary, supervised work designed to give workers experience in a particular job.

interview A meeting, on the phone or in person, in which an employer discusses a position with a prospective employee.

in-text citation Gives credit to the author or the source of the information directly after the text where the person has been quoted or paraphrased.

intranet A set of communication tools that partners can share.

investor People with money to invest in a small business.

iPad Apple Computer's tablet/Net PC hybrid that uses multi-touch fingertip control of the interface.

Java A language used for writing codes to create Web pages.

JavaScript A language used for writing codes to create Web pages.

job description Lists the duties to be performed in a job as well as the education, experience, and skills required.

Joint Photographic Experts Group (.jpeg, .jpg) An image format which adheres to an international set of graphics standards; the format used by most cameras and cell phones; they can be compressed for Internet use.

justify Alignment in which text lines up flush against both the left and right margins. Spacing between words is averaged across the line.

keyword A word used to refine an Internet search.

labels Text values that are used as column or row headings.

landscape orientation When the long side of an image or document is across the top.

legal entity A person or company that can enter into legal business contracts.

libraries Used to organize your most popular files in Windows 7.

Limited Liability Company (LLC) A business incorporated under state law in which owners have limited personal liability for the debts and actions of the LLC.

line chart Chart that is similar to a column chart, except columns are replaced by points connected by a line.

links Word or phrase that takes a user to another location on the Web.

liquid crystal display (LCD) A component of many digital cameras which lets you see immediately the pictures you have taken.

Live Preview Allows users to see in advance what a font change will look like.

lowercase The capitalization of words in which all of the letters are not capitalized.

management The personnel running and managing a business.

Manufacturer's Suggested Retail Price (MSRP) The price that the manufacturer of the car recommends that the retailer (car dealership) sells the car for.

margin The blank space between the edge of the paper and the print; unprinted area surrounding a document.

market capitalization Measures the size of a public company equal to the share price times the number of shares.

Max function A special function in Excel which does not use operators to determine the maximum value in a set of values.

media kit Like a fact sheet; it is an effective way to make sure information shared about a company is clear, concise, accurate, and helpful to the audience of media and press professionals.

megapixels The unit by which digital camera resolution is measured; mega means "million." So, for example, a 5 megapixel camera has a 5 million pixel resolution.

microprocessor A small circuit board that controls all of the "thinking" inside of a computer. Sometimes called the "brains" of a computer.

Min function A special function in Excel which does not use operators to determine the minimum value in a set of values.

Mini Toolbar A toolbar appears immediately after target text is selected and allows the user to apply the most common formatting options such as bold and italic.

mission statement The goals of a company.

mission-critical Essential activities vital to the success of a business.

Modern Language Association of America (MLA) A set of citation standards.

modified block style In this style, the left tab marker is placed directly on the centerline located 3 1/4 inches from the left margin. Some parts of the letter (including the date, address block, and complimentary close) are keyed to the right of the centerline.

Moore's Law The observation that the ability of microprocessors to perform calculations has been doubling about every 18 months for the past half-century.

motherboard Special circuit boards that connect the CPU to other internal components inside the computer such as memory and integrated circuitry.

multitasking The ability to do more than one thing at a time.

NASDAQ One of the major stock exchanges located on Wall Street; trades stocks for almost 4,000 companies.

nested Pairs of tags set inside of each other.

net PC A light computer designed to work in the Internet cloud.

net profit The gross profit minus overheads and other costs.

networks Allow ideas, thoughts, information, data, and even money to flow through the online world.

new media Any interactive digital information available from the Internet cloud, such as apps and gadgets.

New York Stock Exchange (NYSE) One of the major stock exchanges located on Wall Street.

nominal APR An APR that does not include compound interest.

notebook (In OneNote) A way of organizing information; a notebook contains sections.

numbered list Used instead of a bulleted list for prioritizing items, step-by-step instructions, or when items need to fall in chronological order.

numerical value Any numbers, as well as symbols such as +, -, (,), and %.

offer A proposed salary.

open punctuation A format in which the colon after the salutation and the comma after the complimentary close should be removed.

open source Applications are shared by developers all over the world.

opening tag The beginning of code (a command) to a Web browser.

operating system (OS) Controls the operation of a computer and manages the other digital tools on personal computers and other computing devices.

optical zoom A feature on some digital cameras which physically adjusts the lenses and will close in on a subject without sacrificing quality.

order of operations When using multiple operators in the same formula, spreadsheets follow a specified order for processing the calculations. The same order as is used in algebra.

organic results Results based on the search criteria and mathematics, unaffected by advertising.

orientation The way that an image or document is positioned.

overtime Work (for an hourly employee) which is more than 40 hours per week.

page (In OneNote) A way of organizing information; a page is the area in which notes are taken.

paid time off (PTO) Time off of work for which an employee still receives salary.

paraphrase Restating in the user's own words someone else's writing or idea.

parenthetical referencing Enclosing short quotes with quotations marks followed by a citation in parentheses.

partnership A business owned by more than one partner.

peripherals Components that connect to a PC including printers, handwriting tablets, headsets, and scanners.

personal computer (PC) A high-speed multimedia desktop computer and is one (of four) category of computers.

personnel People in a business; employees.

Photoshop file format (.psd) An image format usually used for printed images and documents.

phrase searching A way to search for an exact phrase or name by enclosing it within quotation marks.

pie chart Chart that shows the relationship of a part to a whole.

pixel (px) A picture element; the smallest, single dot of color a monitor is capable of displaying.

pixels per inch (PPI) A way of measuring a monitor's resolution.

plagiarism Stealing the written work of another (claiming the work as one's own).

platform A unique type of DigiTool; for instance, smart phones, iPads, tablets, laptops, and desktop PCs are all unique platforms.

Portable Document Format (PDF) A file format for saving documents; this format can reduce file sizes.

portable graphics format (.png) An image file format (usually used for Internet images) designed to replace GIF files; they are often more robust than GIF files, which are meant to be very small and compact.

portfolio A collection of items that demonstrates the applicant's skills and abilities.

portrait orientation When the short side of an image or document is across the top.

predefine In an online setting, it means choices are somewhat limited by the service chosen.

preliminary interviews Generally, the first series of interviews.

press release A way in which corporations, government agencies, and nonprofit organizations share information with the press, websites, customers and constituents.

primary key In a database, one field that is assigned to be the field that uniquely identifies a record.

principal The amount borrowed.

processing The thinking inside any digital device that turns input into output.

product Anything that can be sold or charged for.

prominence Moving an image back or forward when images overlap.

proofreader marks Shorthand code written with a pen (digital or otherwise) or pencil indicating possible errors in a document.

proprietary Operating system (OS) software owned by a company that controls and profits by selling licenses, or permissions, to use the OS.

proprietorship A business owned by one individual.

query (*Chapter 7*) A search method that allows complex searches of a database.

query (*Chapter 2*) A type of question used in an Internet search.

quote Copying what a person said word for word.

range Any set of cells in a sequence separated by a colon (:).

raster graphics Bitmapped graphics in which images are converted into little grids of dots: black-and-white dots, grayscale dots, or color dots; they display jagged and rough squares when subjected to close scrutiny.

rate structure The amount charged for different services.

real time Changes are posted at the same rate they are made. Documents shared in the cloud can be read and edited by multiple team members at the same time.

recession A time period in which the economy stops growing for six months or more.

record A group of related fields in a data source; a complete set of database fields.

relevance Sorting of query results which places those most likely to contain the information sought first.

result An answer to a query based on the keyword(s) entered.

resume Document that includes a summary of an individual's qualifications and skills.

reverse chronological order A resume in which the most recent work, training experience, or school is listed first and the oldest experiences are listed last.

salaried An employee who is paid a specific amount per year, regardless of the number of hours worked.

salary package The complete set of benefits that include salary, paid time off (PTO), health care coverage, and other benefits.

salary range The range usually paid for individuals in a specific job.

salary Money a worker receives in exchange for doing a job.

sans serif font A font that eliminates the decorative lines that are found on the characters of serif fonts.

saturation Refers to the purity of a color or hue.

scanners Hardware device used for capturing images of printed documents, existing photographs, magazines and newspapers, sketches, drawings, or paintings.

screening Process of sifting through and eliminating unqualified applicants.

search tools Programs that perform keyword searches for information that you need on the Internet.

second round of interviews A follow-up series of interviews.

section (In OneNote) A way of organizing information; a section is a part of a notebook and it contains pages.

sector A segment of the economy.

sentence case The capitalization of words in which only the first word has an initial capital letter.

serif font A font which adds decorative lines to characters.

share An investment in a public company in which a company or person becomes a partial owner.

sheet (worksheet) The primary documents used in Excel to store and work with data.

side heading In a table, the text that appears in the first column which indicates the content of each row.

singledocumindedness Google's single-document approach which allows several users to be working on the same document at the same time, displaying everyone's changes simultaneously.

skewed An image scanned or set at a slant.

sorting Arranging data or records in ascending or descending order.

space bar In keyboarding, the key that adds space between words.

spam Unwanted e-mail, advertising, pop-up ads, or pages that appear on your computer without requesting them.

split transition A transition that divides the screen into parts, and each part is filled with the new slide.

sponsored links Search result paid for by advertisers.

standard word In keyboarding, five characters/spaces.

stemming A feature of search engines that find the stem of a word and include related words with different endings or tenses in the search.

stock exchange The method by which shares are bought and sold around the world.

storage media A storage device for preserving everything a user has written, taken a picture of, or created.

storyboard A detailed plan for each slide in a PowerPoint or other project.

styles Define how the various parts of the document should look.

subfolder A directory for storing data which is organized within another folder.

subpages (In OneNote) A way of organizing information; used to avoid creating endlessly long pages for a single topic.

Sum function A special function in Excel which does not use operators to determine the sum of a set of values.

synchronization When an app updates itself on multiple platforms.

Tab The key used to move the insertion point to a specific location on a line.

tab marker Used to add organization to information on a page by setting specific spacing.

table An arrangement of data in rows and columns, similar to a spreadsheet; the main storage container in a database.

tablet PC Category of computer that allows handwritten notes directly on the surface of the screen with a digital pen.

tagged image file format (.tiff, .tif) An image format usually used for printed images.

talking points A written list used to remind presenters of what they wish to say.

template A predesigned, preformatted document that can be used as is or modified to fit your needs; helps users quickly and easily develop exciting and professional documents.

temporary employment agency Company that hires individuals to fill short-term jobs.

temps Employees who fill short-term positions through temporary employment agencies.

text value Words, numbers, and dates in a spreadsheet or database.

themes Stylized templates you can choose that professionals have created.

thesaurus A list of alternative word choices.

three dimensional (3D) An image which has aspects that give the illusion of depth.

thumbnail Image preview that allows the user to better see what he or she is picking before making a selection.

time-and-a-half Pay that is 50% more than the normal pay rate; usually paid to hourly employees for overtime worked.

tint Changes the quality of a hue so that it differs slightly from a primary color.

title slide The first slide in a presentation; it works much like the cover sheet of a report.

toggle case The shifting of the capitalization of a word or words in which all of the letters are switched to the opposite of their current state. If the letter is capitalized, it will be made lowercase. And if the letter is lowercase, it will be capitalized.

top-level domain (TLD) The last few letters following the period in a domain name.

trading volume The number of trades handled through the stock exchange.

transitions The way in which one slide moves into another slide.

underscore A symbol used to separate words within long filenames.

uniform resource locator (URL) Part of the uniform system of naming that allows Web surfers to locate the exact resource they seek; the path to a specific HTML file located somewhere online.

uppercase The capitalization of a word in which each letter appears capitalized.

user interface (UI) The mechanism through which users communicate with a computer.

value A definition of an attribute that allows a coder to include more information in a single tag in XHTML and XML.

vector graphics Images which use mathematical formulas to define all of the shapes in an image; they do not display jagged and rough squares when subjected to close scrutiny.

venture capitalist (VC) A businessperson with money to risk on new, promising companies.

vertical outline An outline format used if your notes consist of long paragraphs grouped under headings or if you want to indent items in a list.

virus A destructive program or application loaded onto a computer that can run without a user's knowledge and can quickly destroy data or cause network problems.

voiceover A recording of a voice added to slides.

Wall Street New York City home of two major stock exchanges: the NYSE (New York Stock Exchange) and the NASDAQ.

watermark A shadowy word or phrase that appears behind a document and is often used to mark confidential or draft documents.

window Boxes that appear on the desktop when a program is opened.

wipe transition A transition in which the old image is wiped off the screen. Wipes simply cover an old slide with a new one by sliding the new image over the old one.

wizard A tool within an application which steps you through a sequence of actions in order to accomplish a task.

WordArt A Microsoft Office utility that allows the user to turn words into interesting graphics.

workbook An Excel file which contains one or more worksheets.

worksheet (sheets) Computerized spreadsheet in Excel; a grid of rows and columns containing numbers, text, and formulas.

WYSIWYG Stands for "what you see is what you get" (pronounced wizzee-wig).

XHTML (Extensible Hypertext Markup Language) A newer, upgraded version of HTML; used for writing code to create Web pages.

XML (Extensible Markup Language) A newer, upgraded version of HTML; used for writing code to create Web pages.

Index

A

academic efficiency, 339
academic reports
  cover pages, creating, 350–351
  error-free, 342–346
  formatting, 341–351
  in-text citations, 347–349
  works cited pages, 347–349
acceptable use policies (AUPs), 5–6
acceptance letters, 187
accessibility, digital communication and, 126–127
accessibility tools, 161–163
accountants, 512
accounting, 512
accuracy, 159–160, 184–185
acronyms, Information Technology (IT), 64
active application, 14
active cells, of spreadsheets, 210
adding tool, OneNote notebooks, 451–452
address, electronic mail, 57, 551
addressing, envelope, 191–192
Adobe systems, 332
  Dreamweaver, 421
  FrameMaker, 310
  InDesign, 310
  PageMaker, 310
  Photoshop, 275, 291
  Premier, 275
  Reader, 332
AdWords, 51
agendas, 202–203
  preparing, 202–203
  using, 202–203
agriculture, food, and natural resources careers, 36, 306–307
aligning text, 166–169
  left, 165
  to margins, 165–166
  right, 165
Allen, Paul, 346
Alt key, 14, 16–17
Amazon Kindle, 309, 334
American Chemical Company (ACS), 353
American Institute of Certified Public Accountants (AICPA), 512
American Psychological Association (APA), 353
amortization tables, 507–508
anchor tags, 397
angle brackets, 379
animation tab, 119, 140
AnnualCreditReport.com, 513
annual percentage rate (APR), 505
annual rate, 533
annual salaries, 536–537, 572
apostrophe, 186
appearance, changing
  in Microsoft, 9–10
  of pages, 455–457
  Site, 426–428
Apple systems, 412, 413, 415
  Aperture, 275
  Final Cut Pro, 275
  iMovie, 275
  iPad, 2, 309, 334, 415, 457
  iPhone, 2, 412
  iPhoto, 275
  operating system, 7
  Safari, 42, 406
applicant, 526
application correspondence, 554–556
application letter, job, 554–556
applications (apps), 13–18, *see also* gadgets; online apps/gadgets; personal online apps/gadgets
  apps, searching for, 17–18
  clicking, 14–16
  defined, 7
  iGoogle, 38–39, 417–418
  multiple, switching, 16–17
  online, 61
  opening, 16–17
  previewing, 37–38
  searching for, 17–18
  tapping, 14–16
  translation, 441
  windows, 13–17
  Windows 7, 22–23, 38
applying for job, *see* resume building, applying, and interviewing skills
apprentices, 532
apprenticeships, 532
architecture and construction careers, 36, 493–494
archive, 444
archived documents, 518
arithmetic operators, 216
arts, audio/video technology, and communications careers, 36, 439–441
ascending order, 261
Ask.com, 49
attachments, sending, 60
attributes, 388
audience
  for presentations, 117–120
  résumé, targeting, 551
audio/video technology careers, 439–440
Autocite, 359
auto fill
  adding data with, 213–216
  defined, 213
  key text and, 213–214
automatic date, inserting, 177
automatic play, 140–141
Average function, 229
averages, calculating, 372

B

background colors, 394–395
BACKSPACE key, 104–106
balance sheets, 519
Ballmer, Steve, 346
bankruptcy, 498
bar chart, 232
Bechtolsheim, Andy, 497
Biden, Joe, 352
bitmap (BMP), 275–276
b key, 89–91
blocking data, by filtering, 262–263
block paragraphs, 99
  key, 99–100, 104
block style letter, 188–192
  with mixed punctuation, 188–190
  modified, 190
  with open punctuation, 192–193
block style letter, with open punctuation, 192–193
Board of Directors, 473
body position for keying, 68, 71
bookmarks, creating, 48
book report, 154, 160
Boole, George, 55
Boolean operators, 50, 53–55
bracket keys, 395
brains of computer, *see* central processing unit (CPU)
brainstorming, 481–482
breaks with single XHTML tags, 390–392
brightness, 286, 301–302
Brin, Sergey, 497, 517
browsers, 41–48, see *also* Internet Explorer (IE); Mozilla Firefox
  defined, 42
  efficiency of, 65
  hyperlinking, through net, 42
  mission-critical departments, 45–47
  mission statements, 43–44
  production of, 65
  web resources, 47–48
bubble, 502
buddies, e-mail, 57
budgets, 454, 512
bulleted lists, 168, 386–387
Business, Management, and Administration career, 206–207
business cards, 324–327
  business information, 324–325
  personal, 565
  templates for, 325–327
business correspondence, formatting, 184–193
  accuracy, 184–185
  block style letter, 188–192
  collaboration tools, 185–186
  corrections to, making, 186–187
  envelope, 190–192
  letters, 187
  proofreader marks, 185–186
business documents, formatting, 173–184
  memos, 173–176
  numbered lists, 178–179
  tab markers on ruler, setting, 179–183
businesses communication, for projects, 243
business management and administration careers, 36
business plan
  brainstorming, 480–482
  creating as team, 480–486
  defined, 483
  human resources and management team, 483–484
  legal plans, 486
  marketing/financing plans, 484–485
  publishing, 489
  writing, for startup, 483–484, 485–486
business-ready documents, *see* business-ready reports/documents
business-ready reports/documents
  charts, creating/inserting into, 366–368
  designing, 363–365
  formatting, 361–370
  graphs, creating/inserting into, 366–369
  keying, 362–365
business templates, 323

C

Cached page links, 51
calendar
  add, 433–436
  creating, 430–432
  events, 430–433
  modifying, 433–434
  websites, adding to, 430–436
camera settings, 293–294
Cameron, James, 291
campaign websites, creating, 411
candidate, 526
capital, 484
  for company, raising, 498
capitalization rules, 63
CAPS LOCK key, 102–104
capturing digital images, from camera to PC, 291–296
  camera settings, 293–294
  downloading images, to PC, 294–296
  megapixels, 292–293
  snapping photos, 292
capturing tools, OneNote notebooks, 457–458
car buying, 509–510
career and job search skills, 522–541
  department shopping, 522
  jobs, 526–532, 534–535
  on-the-job teamwork, 522–526
  salaries, investigating, 533–534
career clusters, 35–36
career path
  choosing, 524
  investigating, 524
career-ready keying skills, 39
career-ready report, 362
careers, 35–36
career web page, personal, 565
CARFAX, 466–467
car loan rates, local, 509–510
car sales, marketing for, 467
Cascading Style Sheets (CSS), 378, 395–396
  coloring text with, 395–396
  colors with, adding, 396
catalog mailings, 492
CD-RW drives, compact discs for, 24
cell phone message, 549–550
cell references, 218–219

cells, 210
Celsius, converting, 225–226
center, 165
centering text, 165–170, 182–183
centerline, 190
center tab, 179
central processing unit (CPU), 7
CEO, researching, 131–133
certificates, 327–328
Certified Public Accountant (CPA), 512
  maintaining corporate health with, 512
  requirements of, 512
changing margins, 166–169
charts, *see* graphs/charts
Chicago Manual of Style (CMS or CMOS), 353
chronological order, 178
chronological resume, creating, 550–553
circuitry, 7
Cisco, 491
citation standards, 351–361
  Microsoft Word's, 353–358
  plagiarism, 352
  standards for, 351–352
  Web's, 352–361
c key, 86–87
classic photos, scanning, 289–290
clickers, 143
clicking applications, 14–16
clip art, 316–323
  defined, 317
  finding, 316–317
  manipulating, 317–319
  positioning, 316–317
  using, 317–319
  WordArt, 319–323
clipboard, 169
closing tag, 378
cloud, *see* World Wide Web
Coffee Cup Visual Site Designer, 421
collaboration tools, 185–186
college-ready keying skills, 39
: (colon key), 101–102
colors, 393–395
  background, 394–395
  book reports, applying to, 173
  Cascading Style Sheets, adding, 395–397
  OneNote notebooks, 455–457
  of slide show, 128–130
  variations in, adjusting, 301–302
  XHTML tags, applying attributes to, 393–395
color schemes, 127
columnar outlines, 451
  from bulleted lists, 453–454
column chart, 233
column headings, 195
combo drive, 24
, (comma key), 97–98, 239–240, 271
comments, 175–176
  deleting, 175–176
  reading, 175–176
communication, 156–160
  accuracy, 159–160
  apps, IT, 470–471
  book report, spell check, 160
  with businesses, projects, 243
  with communication leaders, projects, 243
  media kit, 157
  proofing, 159–160
  setting up, 470
  skills of, teamwork, 148
  Status bar, 157–159
communication careers, 439–441
communication leaders, for projects, 243
communications intranet, IT, 479–480
compact discs for CD-RW drives, 24
comparative salaries, 572–573
compiled codes, 378
complex informative tables, 197–202
  creating, 197–199, 200–202
components of computer, 7
compound interest, 505
compressed natural gas cars, 510–511
computers, *see also* personal computer (PC)
  dangers of, 5–6
  early, 345–346
  mobile, 346
  personal, 346
Confusing Usage link, 146, 305–306, 336, 373, 408, 464, 493, 519, 573
construction careers, 494
constructive criticism, 185
contacts
  e-mail, 57
  template, creating from, 252–260
containers, 446
continuous play, 140–141
contrast, 286, 301–302
Control Panels
  defined, 9
  of operating system (OS), 9–12, 17–18
  printers, 12
  searching for, 17–18
  sound check, 11
conversions, formulas
  calculating, 220–222
  keying, and adding styles, 220–221
  reversing, 221–222
converting file, to PDF format, 336
converting spreadsheets, *see* customizing/converting spreadsheets
copying file, 31–32, 169–170
Corel, 310
corporate acceptable use policies (AUPs), 5
corporate communications system on Web, starting up, 469–480
  communications, setting up, 470
  IT communications, 470–471, 479–480
corporate communications teams, 46
corporate health, maintaining, 512–513
corporate websites
  job description on, 530–531
  searching for jobs on, 530–531
corporation, 497
correspondence, 187
costs, calculating, 231–232
counteroffer, 533
Count function, 229
country issues, 411
cover letter, 554
cover page, creating, 350–351, 376
create/creating
  complex informative tables, 197–199, 200–202
  cover page, 350–351
  databases, 272–273
  envelopes, 191–192
  file, 27
  Google Docs, 472–474
  hypertext links to web, 399–400
  iGoogle account, 416–417
  invitations, template for, 311–314
  letter (e-mail) of application, 564
  math apps site, 438–439
  math web page, 438–439
  memos, 174–175
  numbered lists, 178–179
  OneNote notebooks, 444–450
  online presentations, 489
  original resume, 564
  pages, 399, 447–448
  presentations, 563
  press release, 369–370
  product websites, 488
  projects, 495
  publications, 323–333
  report title page, 331–332
  text banner, 370
  vertical outlines, 451–452
  websites, 377–411
  websites pages, multiple, 428–432
  works cited pages, 356–358
creditors, 498
credit report, free, 514
criticism, constructive, 185
cross-platform, 414
currency conversions, calculating, 145–146
customary measurements, 224–225
customizing/converting spreadsheets, 222–229
  Celsius, converting, 225–226
  Fahrenheit, converting, 225–226
  formats, 226–229
  metric measurements, converting to, 223–225
  temperatures, converting, 225–226
  worksheet tabs, renaming, 222–223
custom watermark, 184
cut transitions, 139
cybercrimes, 4

D

dash, 344
data
  formulas, 216
  numbers, 216
  OneNote notebooks, adding, 452–454
  record, adding to, 257–258
  for spreadsheets, 212–213, 215–216
  text, 212
  types of, 212
database designers, 252
databases, 244–269
  contacts, creating from template, 252–260
  creating, 272–273
  defined, 244–248
  exploring, 244–252
  filtering, 260–268
  forms, 248–250
  queries, 267–268
  reporting, 260–266
  sorting, 260–266
  table, manipulating existing, 245–248
data files
  opening, 29–31
  renaming, 29–31
  saving, 29–31
data formulas, types of, 212
dates, adding to spreadsheets, 215–216
debt, 498, 504
debtor, 498
decimals, converting, 205
decimal tab, 179
decision making, 235–237
  lodge transportation choices, 236
  personal transportation choices, 237
default, 165
default line spacing, 154
default tabs, 105
delete/deleting
  comments, 175–176
  file, 27–29, 31–32
  gadgets, 418–419
  images, 314–317
  pages, 447–448
departments
  defined, 522
  on-the-job teamwork, duties/functions, 522–523
  profitability of, 539–540
  shopping, 522
depreciation, and XHTML tags, 388–390
descending order, 261
design/designing
  business-ready reports/documents, 361–365
  forms, 250–251
  multifold resume, 564
  original résumé, 564–575
  press release, 368–370
desktop personal computer (PC), 2
desktop publishing (DTP), 309–340, *see also* Publisher, Microsoft
  alternative, 309–310
  clip art, 316–323
  images, 314–316
  press release in, creating, 329–331
  publication elements, 316–323
  software, 309
dialog box, 10
digital book, 521
digital brains, 2
digital camera, 11
digital communications model, 3
digital devices, 2
digital images, 274–308, *see also* capturing digital images, from camera to PC
  capturing, from camera to PC, 291–296
  enhancing, 274–291
  manipulating, in documents, 297–304
  media kit, adding to, 308
  online, preserving/sharing personal, 308
  scanning, 274–291
Digital Snapshot 10.1, 347
digital versatile disk, for DVD RW drives, 24
digital video recorders (DVR), 2
digital zoom, 292
digitizing, 275
DigiTools
  input, search for alternative, 111
  specialized, 2
directories, 45
Disney, 405
displaying pages, 447–448
dissolve transitions, 139
documents, *see also* business-ready reports/documents
  hyperlinking in, 397–399
  job search, previewing/preparing, 542–550
  manipulating digital images in, 297–304
  Status bar, improving, 157–159
Dodd-Frank Wall Street Reform and Consumer Protection Act, 502, 513
Dorsey, Jack, 41
DOS, 346
dots, 275–276
Dow, Charles, 501
Dow Jones Industrial Average (DJIA), 501
downloading images, to PC, 294–296
  importing, 296–295
Dow stock, 503–504
DPI (dots per inch), 275
drawing, sketching, and note taking skills, 442–467, *see also* OneNote notebooks, Microsoft
  note taking, 442–443

drawing tools, OneNote notebooks
adding, 451–452
capturing, 457–458
dressing for job interviews, 568
drive, 569
dual-core processor, 7, see also central processing unit (CPU)
DVD RW drives, digital versatile disk for, 24

E

early computers, 345–346
eBay, 491
education and training careers, 35, 109–110
effective APR, 505
e key, 73–75
electric cars, 510–511
electronic mail, 56–60
account for, establishing, 57–58
address, 57, 547
of application, 554–556
attachments, sending to team members, 60
defined, 56
establishing, 57
forwarding, 59
logins, 56–57
managing, 59–60
netiquette, research information on, 57
passwords for, 56–57
provider, finding, 58
receiving, 59
replying to, 59
sending, 58
services, researching, 549–550
Yahoo!, 56
Electronic Numerical Integrator and Computer (ENIAC), 345
elements, 311, see also objects
Ellison, Larry, 252
e-mail, see electronic mail
employees, 483, see also personnel
handbook for, 576
obligations of, 576–577
rights of, 576–577
employment data, 546–547
employment portfolio, 558–560
employment trends, 540–541
employment websites, online job searching on, 529
ending tag, 379
end-of-class routine, 72
English measurements, 220, 223
ENTER key, 69–70, 72, 78, 81, 83, 85, 91, 96
envelopes
addressing, 190–192
creating, 191–192
Equifax, 513
error-free academic reports, 342–346
errors on slide show, correcting, 124–125
ethics
criticism, constructive, 185
cybercrimes, 4
netiquette, 56, 57
online content, 412
picture piracy, 405
plagiarism, 352
resume, integrity of, 544
etiquette, 56
Excel, Microsoft, 26, 61, 209, 210, 232, 238, 365, 476
charts, inserting, 365–366
graphs, inserting, 365–366
math, problems in, 366–368
solving math problems, use of, 366–368
exclamation marks, 188
expenses, 498
Experian, 513
exponent, 216
Expression Web, 421
external parts of personal computer (PC), 6–7

F

Facebook, 3, 25, 40, 412, 413, 415, 420, 421, 468, 479, 491, 548, 566
fade transitions, 139
Fahrenheit, converting, 225–226
Fair Credit Reporting Act, 513
Fair Isaac Corporation, 513
Federal Department of Education, 515
Federal Trade Commission, 513
FICO credit scoring system, 513–514
free credit report, 514
field notes, 442
fields, 245
file, 25–26, see also data files
copying, 31–32
creating, 27
deleting, 27–29, 31–32
management of, 23–32, 31
moving, 31–32
renaming, 27–29, 31–32
saving, 27
storing, 27
fill handle, 215
filtering, 260–269
blocking data by, 262–263
final round of interviews, 563
finance, defined, 512
finance and accounting teams, 46
finance careers, 37, 519–520
financial control, taking, 498
financial health, maintaining, 511–516
Certified Public Accountant, 511–512
FICO credit scoring system, 514
personal, with FICO, 513–514
student loans, 515
tax health, maintaining, 515
Flash, 378
flextime, 208
flush, 165
flyers, template for creating, 311–314
folders, 23–32
for archived documents, calculating, 518
defined, 26
personal library, 27
sub, 27
types of, 27
fonts, OneNote notebooks, 455–457
font sizes, 455–457
font style, 162
food, agriculture and natural resources careers, 306
forecasting, 512
foreclosure, 502
format/formatting, 161, 226–229
academic reports, 341–351
business correspondence, 184–193
business documents, 173–184
business-ready reports/documents, 361–370
copying, 169–170
data for spreadsheets, 215–216
number, copying, 226–229
pasting, 169–170
press release, 368–370
ribbon/mini-toolbar commands, 161–173
text, 212–213
tools for, 161–163
Format Painter, 170
forms, 248–250
defined, 248
design options for, 250–251
using, 248–250
formulas, 216–221, 239
cell references in, using, 218–219
conversions, 220–222
data, types of, 212
figuring, 239
functional, 229–237
spreadsheet, and operators, 216–218
form view, updating, 259–261
forwarding electronic mail, 59
fractions, converting, 205
free credit report, 514
fuel efficiency costs, 510–511
functional formulas, 229–237
charts, 232–235
costs, calculating, 231–232
graphs, 232–235
profits, calculating, 231–232
totals, calculating, 231–232
functions
Average, 229
defined, 229
Max, 229
Min, 229
OneNote notebooks, 444–450
Sum, 229
funds, 512

G

gadgets, 7, 22–23, see also applications (apps); online apps/gadgets; personal online apps/gadgets
delete, 418–419
iGoogle, 38–39
move, 418–419
theme, changing/adding, 426–428
view, 418–419
Windows 7, 22–23, 38
game consoles, 2
Gates, Bill, 346, 351
g key, 80–82
global positioning system (GPS) tools, 2
Google
SketchUp, 413, 494–495
Google, Inc., 491
initial public offering (IPO) by, 498–501
Google systems, 3, 45, 49, 50, 51, 55, 61, 143, 468, 470–471, 491, 524, 528
Android, 2, 8
apps, 476
Apps for Business, 471
Books Project, 517
Calendar, 269, 413, 414, 422, 430
Chrome, 42, 406, 474
Docs, 61, 116, 144, 413, 422, 475
Earth, 413
Gmail, 56, 144, 422, 548
Google Docs, 472–476
iGoogle, 38–39, 56, 413, 415, 420, 422, 471
OneNote notebooks search tools, 462
Picasa, 275, 413
search engine, 33
Sites, 413, 420, 422, 548
SketchUp, 413, 494–495
Spreadsheet, 209, 237
stemming features of, 52
Web apps, 471–474
government and public administration careers, 36, 408–409
government sites, online, 409
government sites, online, 409
GPA, calculating, 237
gradient color, 317
grammar, 159–160
graphical user interfaces (GUIs), 8
operating system (OS), 8
graphics, 297–299
downloading, 401–403
experiment with, 303–304
in forms, 256–260
inserting, 401–404
reset, 303–304
switch out, 303–304
graphics interchange format (GIF), 276, 401
graphs/charts
business-ready reports/documents, creating/inserting of, 366–368
Excel, inserting, 365–366
functional formulas, 232–235
grayscale photos, 286, 288–290
Great Recession, 502
Greenstreet Publisher, 310
gridlines, 193
gross profit, 484
gross words a minute (gwam), 91
guidelines, for presentations, 120–122

H

hackers, 4
handheld personal computer (PC), 2
handwriting tablet, 11
"hanging" indent, 349
harassment policy, 576
hard drives, 24
hardware, 2
headings
formatting, 164–165
use of, 384–386
health science careers, 36, 271–272
hexadecimal, 394
highlights
defined, 455
OneNote notebooks, 455–457
high market capitalization companies, 503
high-tech financing, 497–504
capital for company, raising, 498
financial control, taking, 498
Google's IPO, 498–501
stock indexes, 501–504
hiring practices, 574–575
h key, 73–75
home keys, 67–70, 71–72
defined, 68
ENTER key, 69–70
keying position, 68
keystroking, 69
positions of, 68
space bar, 69
work-area arrangement, 67
home loans, 504
home tab's tools, 161–163
homonym, 156
horizontal rules with single XHTML tags, 393–395
hospitality and tourism careers, 35, 146–147
research jobs in, 147–148
hourly rate, 533
hourly salaries, 536–537, 572
HTML tags, 378–387
bulleted lists, 386–387
development of, 379–380
extra, for experts, 410
headings, use of, 384–386
numbered lists, 386–387
process for, 379
proofreading, 384
purpose of, 378–379
saving, 380–383
viewing, 380–383
hue, saturation, and brightness (HSB), 286
human resources and management team, 46, 483–484
human services careers, 37
human services community, 538–539
hybrid cars, 510–511

hyperlinks/hyperlinking, 397–400, *see also* links
  browser, through net, 42
  defined, 42, 397
  hypertext links to web, creating, 399–400
  inside document, 397–399
hypertext links to web, creating, 399–400
HyperText Markup Language (HTML), 378
Hypertext REFerence (HREF), 397
Hypertext Transfer Protocol (HTTP), 45, 399
hyphenating numbers, 108

I

IBM (International Business Machines), 107
icons, 8
iGoogle account, 416–418
i key, 75–76
image color, 286
image exposure, 285
image manipulating in documents
  brightness, adjusting, 301–302
  color variation, adjusting, 301–302
  contrast, adjusting, 301–302
  digital images, 297–304
  graphic images, 297–299, 303–304
  three-dimensional pictures, 299–301
images
  adjusting, 278
  deleting, 314–316
  digital, scanning/enhancing, 274–287, 294, 295–296
  manipulating, 283–285, 296, 297–299
  positioning, 277–278, 314–316
  previewing, 278
  publications, adding to, 314–316
  scanning, with OS software, 278–282
  selection of, 276–277
  web page, adding to, 401–406
  Windows Live Photo Gallery for improving, use of, 283–285
image settings, changing, 286–288
imaging devices, 274
importing images, 294–295
income, 498
income statements, 519
incorporation, 486
Information Technology (IT), 3, 63–64
  acronyms, 64
  careers, 35
  communications apps, 470–471
  communications intranet, 479–480
  specialists, 3
  teams, 46
informative tables
  agendas, 202–203
  building, 193–203
  complex, 197–202
  enhancing, 196–197
  improving, 196–197
initial public offering (IPO), 498
  Google, Inc., 498–501
initials, adding, 182–183
input DigiTools, search for alternative, 111
Input Panel, 13
input technologies, 66–67
insignificant words, 52–53
Intel Corp., 32
interest, 505
interest payments, lowering, 505
interface, 7, see *also* user interface (UI)
internal parts of personal computer (PC), 7
International Business Machines (IBM) Model 701, 345
International Organization for Standardization (ISO), 353
International Revenue Service (IRS), 514
Internet, *see also* World Wide Web
  access to, 43–44
  downloading from, 460–461
Internet cloud, *see* World Wide Web
Internet Corporation for Assigned Names and Numbers (ICANN), 49
Internet Explorer (IE), 42, 406
Internet Service Provider (ISP), 57, 548
interns, 532
internships, 532
interview, 526, *see also* job interviews
interviewing skills, *see* resumé building, applying, and interviewing skills
interview questions, 568–570
interview rating scale, 571
in-text citations, 347–349
Intuit Website, 421
investors, 484
invitations, template for creating, 311–314
iPods, 2
iStudio Publisher, 310
IT, *see* Information Technology (IT)

J

Java, 378
JavaScript, 378
job description analysis form, 525
job descriptions, 526
  on corporate websites, 530–531
  defined, 524
  examining, 525
  job description analysis form, completing, 525
  scoring, 535
job discrimination, 575–576
job information sources, searching traditional, 532
job interviews, *see also* résumé building, applying, and interviewing skills
  accepting, 566
  dressing for, 568
  interview questions, 568–569
  interview rating scale, 571
  methods for, 567
  mock, with team members, 571
  preparing for, 566–571
job openings, 524–525
job qualifications, 546
jobs
  comparing, 533–534
  searching for, 528–530
job search documents, previewing/preparing, 542–550
job search skills, *see* career and job search skills
jobs searching, 528–530
  job description, 526, 530–531
  job openings, 524–525
  Occupational Outlook Handbook (OOH), 527–528
  online, 528–529
Joint Photographic Experts Group (JPEG), 276, 401
Jones, Edward, 501
justify
  defined, 165
  text, 165–170

K

key block paragraphs, 101, 104
keyboard, 7, 67
keying
  body position for, 68, 70
  business-ready reports/documents, 361–365
  career-ready, 39
  college-ready, 39
  conversions formulas, and adding styles, 220–221
  speed of, 86, 93, 100, 107
  words, score for, 91
keys, plan for learning new, 73–75
keystroking, 69
keyword(s), 72
  analysis, 557
  defined, 50
  queries, narrowing, 50–51
  for World Wide Web, searching on, 107, 110–111
Knoll, James, 291
Knoll, Thomas, 291

L

labels, 212
landscape orientation, 277, 303
large cap companies, 503
law, public safety, corrections, and security careers, 37, 573–574
leadership, and teamwork, 60
left shift key, 82–84
left tab, 179
legal entity, 486
legal plans, 486
legal services teams, 46
lending, risky, 505
letters, 187
  of application, 554–556, 564
  block style, 188–192
  of recommendation, acquiring, 561
  types of, 187
libraries, 23–32
lighting, 286
Limited Liability Company (LLC), 486
line chart, 233
line height/width, changing, 392–393
links, 42, *see also* hyperlinks/hyperlinking
  within page, creating, 397–398
Linux operating system, 7
liquid crystal displays (LCDs), 292
Live Preview feature, 162
loan calculations, apps for, 506–507
loan/mortgage skills, 504–511
  amortization tables, 507–508
  car loan rates, local, 509–510
  compound interest, 505
  compressed natural gas cars, 510–511
  debt, good/bad, 504
  electric cars, 510–511
  fuel efficiency costs, 510–511
  hybrid cars, 510–511
  interest payments, lowering, 505
  lending, risky, 505
  loan calculations, apps for, 506–507
Local Disk drive, 24
lodge transportation choices, 236
logins, 56
  acceptable use policies (AUPs), 6
  electronic mail, 56–57
  passwords for, use of, 6
lowercase option, 163

M

Macintosh operating system, 7
mainframes, 345
major search tools, 65
management
  defined, 483
  of electronic mail, 59–60
  file, 31
Manufacturer's Suggested Retail Price (MSRP), 510
manufacturing careers, 36, 336–338
map gadgets, adding to website, 430–437
margins, 69, 165
  align text tp, 165–170
  center text, 165–170
  changing, 166–169
  formats, copying/pasting, 169–170
  justify text, 165–170
  texts, copying/pasting, 169–170
markdown amounts, 407
market campaign, planning, 465–466
Market Capitalization, 499
marketing, sales, and customer support careers, 36, 464–466
  market campaign, planning, 465–466
  market research, 465
marketing, sales, and support teams, 46
marketing/financing plans, 484–485
market research, 465
markup amounts, 407
math/mathematics
  apps site, creating, 438–439
  averages, 372
  currency conversions, 145
  formulas, 239
  fractions, decimals, and percents, converting, 205
  markup/markdown amounts, 407
  math skills web page/apps site, 438–439
  multiplication, 34–35
  numbers, hyphenating, 108
  online support on, searching for, 62
  problems in Excel, use of for solving, 366–368
  salary, annual/hourly, 536–537, 572
  symbols, inserting, 335–336
  volume discounts, 270
  web page, creating, 438–439
Max function, 229
Maximize button, 162
media kit, 157
  adding to, 308
  communication, 157
  formatting, 161–163
  multiple graphics, add/resize to, 297–299
  styles to, applying, 171–173
media spaces, building personal new, 413–430
  Google sites, building, 420
  new pages, adding with specifics, 428–430
  principles of, applying, 421–422
  website, creating, 422–428
megapixels, 292–293
memorandum, *see* memos
memos, 173–176
  changes to, making, 175–176
  comments, 175–176
  creating, 174–175
  fixing, 177
  tabs, marking with, 180–181
metric measurements, converting to, 223–225
  into customary, 224–225
  problems with, solving, 223–224
micro-intelligence, 1–6
  acceptable use policies (AUPs), 5–6
  digital brains, 2
  digital communications model, 3
  passwords, for protection, 3–5
microprocessor, 2

Microsoft, 45, 412, 413, 468, 470–471, 491, 524
Access, 245
appearance in, changing, 9–10
Backstage, 323
Bing, 33, 49, 56, 143, 528
Excel, *see* Excel, Microsoft
Expression Web, 421
Hotmail Live, 56
Live, 415
Office, 61, 365, 476
Office Live Workspace, 61
OneNote, *see* OneNote notebooks, Microsoft
PowerPoint, see PowerPoint, Microsoft
Publisher, see Publisher, Microsoft
Web apps, 476–479
Windows, *see* Windows
Word, *see* Word, Microsoft
Miner, Bob, 252
Min function, 229
Mini Toolbar, 164
mini-toolbar commands, *see* Ribbon/mini-toolbar commands, formatting
minutes, 442
mission-critical activities, 522
mission-critical departments
investigating, 46
teamwork in exploring, 45–47
Web information, copy/paste, 47
mission statements, 43–44
defined, 43
Internet, access through Web, 43–44
mixed punctuation, 188–189
m key, 93–95
mobile computers, 346
mock job interviews, with team members, 571
Modern Humanities Research Association (MHRA), 353
Modern Language Association of America (MLA), 353
modified block style letter, 190
monitor, 7
Moore, Gordon, 32
Moore's Law, 32
mortgages, 504
Mosaic, 406
motherboards, 7
mouse, 7
move/moving
file, 31–32
spreadsheets, 211
Mozilla Firefox, 42, 406, 474
MP3 players, 2
multifold resume, designing, 564
multimedia personal computer (PC), 2
multimedia show, personal, 562–563
multiple applications, switching, 16–17
multiple graphics, add/resize to media kit, 297–299
multiple links within page, creating, 399
multiple media visual presentations, 125–126
multiple website pages, creating, 428–430
multiplication, 34–35
multitasking, 32
mushroom cloud, *see* World Wide Web
MySpace, 415, 548

N

NASDAQ, 498, 503–504
National Supercomputing Center, 406
natural resources, agriculture and food careers, 306
navigation/navigating
spreadsheets, 211
World Wide Web, 45
nested, 385
Net, *see* World Wide Web
Netflix, 40
netiquette, 56
e-mail, research information on, 57
Net personal computer (PC), 2
net profit, 484
Netscape Communications Corporation, 406
Network Administrators, 3
networks, 33
new media, 330–331, 413
new pages, adding with specifics, 428–430
New York Stock Exchange (NYSE), 498
n key, 80–82
normal APR, 505
notebooks, 445
note taking, *see also* drawing, sketching, and note taking skills
presentations, for development of, 131–137
rules of, 443
skills of, 442–443
numbered lists, 178–179, 386–387
numbers, *see also* numerical values
copying, 226–229
hyphenating, 108
as type of data, 212
numerical values, 212
spreadsheets, adding to, 215–216

O

Oates, Ed, 252
Obama, Barack, 502
objects, 311, *see also* elements
Occupational Outlook Handbook (OOH), 527–528
offer, 533
o key, 78–80
OneNote notebooks, Microsoft, 297, *see also* drawing, sketching, and note taking skills
appearance of pages, changing, 455–457
colors, 455–457
creating, 444–450
data, adding, 452–454
defined, 444
drawing tools, 451–452, 457–458
fonts, 455–457
font sizes, 455–457
functions of, 444–450
Google-like search tools, 462
handwritten notes, 457–460
highlights, 455–457
Internet, downloading from, 460–461
outlines, 451–454
pages, 447–450
picture, draw on, 461–462
space, adding, 452–454
subpages for drawings, creating, 458–459
online applications, 61, 556–558
completing, 557–558
online apps/gadgets, 412–441, *see also* applications (apps); gadgets
calendar, adding to website, 430–436
map gadgets, adding to website, 430–436
media spaces with, building personal new, 413–430
personal, places for, 415–419
web apps, alternative, 421
online content, 412
online devices, 24
online digital images, sharing personal, 308
online jobs searching, 528–529
employment websites, 529
online loan calculator, 506–507
online Occupational Outlook Handbook (OOH), searching, 527–528
online presentations
creating, 489
preparing for teams, 486–490
website, creating startup, 487–488
World Wide Web, posting presentation on, 488–489
online research tools, 49
online resources, searching, 48–55
Boolean operators, 53–55
insignificant words, 52–53
phrase searching, 52–53
queries, 50–51, 54–55
search results, 51, 53
search tools, 49
stemming, 52–53
online support for math, searching for, 62
online teamworking, 468–495
business plan, 480–486
corporate communications system on Web, starting up, 469–480
presentation, 486–490
startup business, 468
on-the-job teamwork, 522–525
career path, 524–525
department duties/functions, 522–523
job description, 525
opening tag, 378, 379
Open Office, 209, 479
open/opening
applications, 16–17
data files, 29–31
open punctuation, 192–193
open source operating system (OS), 7
operating system (OS), 6–12, 7
changes to, 9
Control Panels of, 9–12, 17–18, *see also* Control Panels
defined, 7
external parts, 6–7
graphical user interfaces of, 8
internal parts, 6–7
management of, 7–8
open source, 7
parts of, 7
peripherals, 11–12
proprietary, 7
types of, 7–8
Windows, 6–12, *see also* Windows
optical zoom, 292
Oracle, 252
order of operations, 217
order of presentations, 138
organic results, 51
orientation, 277
original resumé, creating design of, 564–565
outlines
adding, 451–452
columnar, from bulleted list, 453–454
vertical, creating, 451–452
overtime, 534

P

Page, Larry, 496, 517
PagePlus, 310
PageRank, 497
pages
appearance, changing of, 455–456
creating, 447–448
defined, 445
deleting, 447–448
displaying, 447–448
multiple website, 428–429
OneNote notebooks, 447–448
from templates, creating, 449–450
paid time off (PTO), 534
paraphrase, 348
parenthetical referencing, 351
partnership, 486
passwords
for electronic mail, 56–57
for logging in, use of, 6
proper, 4–5
for protection, 3–5
pasting, 169–170
PDF format
converting to, 333
saving in, 332–333
Pen Tools, 143
percents, converting, 205
. (period), 83–85, 188
peripherals, 11–12
defined, 11
printers, 12
personal and business financial skills, 496–497
financial health, maintaining, 511–517
high-tech financing, 497–503
loan/mortgage skills, 503–511
personal budget, calculating, 62–63
personal business cards, 565
personal computer (PC), 346
defined, 2
desktop, 2
external parts of, 6–7
handheld, 2
internal parts of, 7
iPad, 2
multimedia, 2
Net, 2
portable laptop, 2
tablet, 2
personal efficiency, flowchart for, 338–339
personal financial health, with FICO, 513–514
personal library, 27
personal message, 441–442
online, 442
personal online apps/gadgets, 413–420, *see also* applications (apps); gadgets
iGoogle account, 416–418
personal résumé, writing, 552–553
personal transportation choices, 237
personnel, 485, *see also* employees
phone services, researching, 550–551
photo gallery, image options in, 285–288
photos, with grayscale, 287–288
classic photos, scanning, 289–290
Photoshop (PSD), 274
phrase searching, 52–53
pictures
OneNote notebooks, 452–453
piracy, 405
record, adding to, 253–255
sizing, 403–405
slide show, adding to, 126
picture styles, 299–300
pie charts, 233
pin, 19–20
pixels (px), 275, 392
p key, 97–99
plagiarism, 351
planning skills, for presentations, 131–137
platform, 414
pop, 20–21
Portable Document Format (PDF), 334
portable laptop personal computer (PC), 2
Portable Network Graphic (PNG), 276, 401
portfolio, 558
employment, 558–559
preparing, 558–559
portrait orientation, 278
position/positioning
of home keys, 68
images, 278–279, 315–317

PowerPoint, Microsoft, 61, 116, 123, 125, 143, 210, 397, 478
benefiting with, 149–150
playing with, 150
policies with, 148–149
presentations, 120–122, 567
procedures with, 148–149
user interface (UI), 118–120
predefined, defined, 421
preliminary interviews, 562
presentation personality, 142
presentations
creating, 564–565
job discrimination, 575–576
key to great, 116–125
multimedia show, personal, 562–563
notes for development of, taking, 131–137
online, 457–467
planning skills, for development of, 131–137
PowerPoint, beginning, 120–122
PowerPoint, preparing, 563
practicing, team's, 150
research, for development of, 131–137
skills for, 137–142
visual, 125–131
presentation style, 142
press releases
creating, 369–370
defined, 369, 378
designing, 368–377
DTP, creating in, 331–333
formatting, 376–377
research for, 375
for school, creating, 376
preview/previewing
applications, 37–38
images, 278
primary key, 249
principal, 507
Printers Control Panel, 11
printers/printing, 11, 12, 351–359
Print Shop, 310
processing, 2
product, defined, 480
product website, creating, 488
profits, calculating, 232–233
programs, *see* applications (apps)
projects, creating, 485
prominence, 317
pronoun references, 537–538
proofing/proofreading
communication, 159–160
grammar, 159–160
HTML tags, 384
presentation, 137–138
proofreader marks, 185–186
spelling, 159–160
proper passwords, 4–5
proprietary operating system (OS), 7
proprietary source, 7
proprietorship, 486
protection, passwords for, 3–5
provider, electronic mail, 58
publications
creating, 323–333
elements, 316–323
images, adding to, 314–316
Publisher, Microsoft, 309, 310–314, 362, 365, 368, *see also* desktop publishing (DTP)
business cards, 323–330
business templates, 323
certificates, 327–328
flyers, template for creating, 311–313
invitations, template for creating, 311–313
new media website, press release for, 330–331
PDF format, 332–333
press release, 329–330
publications, creating with, 323–333
report title page, 331–332
punctuation
mixed, 188–189
open, 192–193
spacing with, 91, 97, 101, 188

Q

q key, 99–101
quad-core processor, 7, *see also* central processing unit (CPU)
QuarkXPress, 310
queries, 50–51, 267–268
defined, 267
keywords, narrowing, 50–51
search, 54–55
? (question mark key), 109, 111, 188
Quick Peek, 20
quote, 345

R

range, 216, 230
raster graphics, 276
rate structure, 549
readability, 123–125
reading comments, 175–176
real time, 474
receiving electronic mail, 59
recession, 501
recoloring, 301–302
record career opportunities, 37
record degree opportunities, 241
recording slide show, 141–142
records, 247
pictures, adding to, 257–259
updating, 259–262
reference information, 354–356
relevance, 51
reliable reporting, 263–266
renaming
data files, 29–31
files, 27–29, 31–32
replying to electronic mail, 59
reporting, 261–270
reliable, 265–266
Report Wizard, 264–266
report title page
creating, 331–332
stylized, 331–332
Report Wizard, 264–267
research and development teams, 46
research/researching
employment trends, local, 540–541
for jobs in hospitality and tourism careers, 147–148
online tools for, 49
for papers, 374–375
phone services, 549–550
presentations, for development of, 131–137
for press release, 369
software tools for, 494–450
web hosting services, 549–550
resource educational degrees, 307
results, defined, 50
resumé, *see also* resumé building, applying, and interviewing skills
audience, targeting, 551
building, 550
chronological, creating, 550–558
defined, 526
improving, 563
integrity of, 544
keyword analysis and, 557
multifold, designing, 564
myths of, 544
original, creating design of, 564–565
personal, writing, 558–559
template for, creating, 564
traditional, 550
writing, 557–558
résumé building, applying, and interviewing skills, 542–577, *see also* job interviews; résumé
application correspondence, creating, 550–552
business card, personal, 565
career web page, personal, 565
cell phone message, 549–550
e-mail address, creating, 548
e-mail services, researching, 565–566
employment data, commit to writing, 546–547
Facebook, 548, 566
job search documents, previewing/preparing, 543–547
online applications, 556–557
phone services, researching, 565–566
portfolios, preparing, 557–558
presentations, 558–559
web hosting services, researching, 549–550
Web page, 552
written recommendations, 560–561
reverse/reversing
chronological order, 550
conversions formulas, 220–221
order, 550
Ribbon/mini-toolbar commands, formatting, 161–173, 210
case, 163–165
headings with, formatting, 164–165
home tab's tools, 161–163
margins, 165–170
media kit, 171–173
right shift key, 88–89
right tab, 179
RIM Blackberry, 2
r key, 75–77
rules of note taking, 444

S

salaries
annual, 533–534, 572
comparative, 572–573
defined, 534
employees, 534
hourly, 536–537, 572
investigating, 533–534
package for, 530
range of, 533
sans serif fonts, 131
saturation, 285
save/saving
data files, 29–31
file, 27
HTML tags, 379–383
images, in web or printed format, 276
PDF format, 332–334
scams, 490
scanning/scanner, 11, 277
digital images, 274–291
images, with OS software, 279–282
types of, 277
SCANS, goals of, 207
school loans, 516
science, technology, engineering, and mathematics careers, 36, 216–217
scoring, of job descriptions, 534
scrambling, 322–323
screening, 526
search engine, Google systems, 33
Search Engine Showdown, 49
search/searching
for apps, 17–18
for Control Panels, 17–18
iGoogle account, 416–417
online Occupational Outlook Handbook (OOH), 527–528
online resources, 48–55
online support for math, 62
queries, 54–55
results, 51, 53
techniques for, 53–54
tools for, 49, 65
Windows, apps in, 18
World Wide Web, keywords for, 110, 113–114
second round of interviews, 567
section tabs, 444
sectors, 501
send/sending
attachments, to team members, 60
electronic mail, 58
sentence case, 163
sentence structure, 35
serif fonts, 131
settings, changing in windows, 39
shading, 320–322
shapes, 320–322
shares, 499
sharing
Google Docs, 471–473
online digital images, personal, 308
sheets, 212, *see also* worksheets
shift keys, 92, 99
shuffle, 20–21
side headings, 195
similar page links, 51
simple interest loan, 505
singledocumindedness, 238, 469
Site appearance, 426–427
sketching skills, *see* drawing, sketching, and note taking skills
skewed, 278
SkyDrive, 476
slide show
colors of, 127–130
errors on, correcting, 124–125
picture, adding, 126
recording, 141–142
themes of, 127–130
SmartArt, 136–137
Smart Tags, 171
SMS (Short Message Service), 41
snap, 20–22
snapping photos, 292
snippet, 51
Snipping Tool, 307
Software, *see also* applications (apps)
desktop publishing (DTP), 309
research, tools for, 451–452
sorting, 260–269
defined, 260
from a to z, 260–262
sound check, 11
S&P 497, 503–504

space, adding, 452–454
space bar, 69, 70, 71–72, 92
technique for, 78, 93
spacing, with punctuation, 91, 97, 101
spam, 6
Speaker Notes, 143
speakers, 7
specialized DigiTools, 2
speech recognition headset, 11
speed of keying
check, 93, 100, 109
increasing, 87, 95, 100
spelling, 153–154
split transitions, 139
sponsored links, 51
spreadsheets, 209–238, *see also* customizing/converting spreadsheets
auto fill, 210–214
customizing/converting, 222–229
data, 212–213, 216–217
dates, adding, 216–218
for everyday activities, use of, 237
Excel, 210
formulas, 217–221
moving, 211
navigating, 211
numerical values, adding, 215–216
standards for citation, 351–352
standard word, 91
starting tag, 378
startup business, online teamwork, 472
startup websites, 487–488
Status bar, 157–159
stemming, 52–53
stock exchange, 497
stock indexes, 501–504
Dow, tracking, 503–504
NASDAQ, tracking, 503–504
S&P 500, tracking, 503–504
stock market app, basics of, 499–500
stock markets, 498
storage devices, *see* storage media
storage media, 24
compact discs for CD-RW drives, 24
digital versatile disk for DVD RW drives, 24
hard drives, 24
Local Disk drive, 24
online devices, 24
thumb drive, 24
USB flash drive, 24
viewing, 24–25
storing file, 27
storyboarding
defined, 131
from general to specific, 133–136
Student Aid and Fiscal Responsibility Act, 515
student loans, 515
styles, 171
stylized report title page, 331–332
subdirectories, 400
subfolders, 27
subpages, 457–459
Sum function, 229
switching, multiple applications, 16–17
symbols, inserting, 335–336
synchronization, 414

T

TAB key, 104–105
tables
agendas, preparation using, 202–203
amoritization, 510
defined, 248
manipulating existing, 297–299
tablet personal computer (PC), 2
tab markers on ruler, setting, 179–183
centering text, 182–183
center tab, 179
decimal tab, 179
initials, adding, 182–183
left tab, 179
memo, marking with tabs, 180–181
right tab, 179
types of, 179
watermark as confidential, 182–183, 184
tabulating search results, 53
tag, 283
tagged image file format (TIFF), 276
talking points, 123
tapping applications, 14–16
tax health, maintaining, 514
teamwork
benefits of, 149
and leadership, 60
mission-critical departments, exploring, 45–46, 45–47
online, 468–480
technology sector, comparing, 500–501
"tech" stocks, comparing, 500–501
telecommuting, 208
temperatures, converting, 225–226
templates
for business cards, 325–326
contacts, creating from, 244–273
defined, 244–248, 335
flyers, for creating, 311–314
pages from, creating, 449–450
for resume, creating, 573
temporary employment agency, 526
temporary workers, 532
temps, 532
text, *see also* labels; text values
aligning, 166–169
book reports, applying to, 173
copying, 169–170
format, 212–213
key, 212–213
pasting, 169–170
as type of data, 212
text banner, create, 370
text boxes, 320–322
text values, 212
themes, 127
adding, 426–428
changing, 426–428
planning, 127
of slide show, 127–130
Thesaurus, 175
three-dimensional (3-D) pictures, 297–299
thumb drive, 24
thumbnails, 312
time-and-a-half, 534
Time magazine, 334
time management skills, 430–436
Times New Roman, 131
tint, 286
title of web page, 51
title slide, 120
t key, 105–106
tOGGLE cASE feature, 163
tool tip, 20
top-level domain (TLD), 49
totals, calculating, 229–230
trading volume, 498
traditional resumé, 550
transitions, 139–140
translation apps, 441–442
transportation, distribution, and logistics careers, 36, 373
TransUnion, 513
Turabian, 353
tweets, 41
Twitter, 40, 412, 413, 420
typewriters, 188

U

u key, 87–89
underscore, 45
Undo, 194
Uniform Resource Locator (URL), 45, 51, 399
U.S. Department of Commerce, 468
U.S. Department of Labor, 527, 528, 533
U.S. Military, 528
UNIVersal Automatic Computer (UNIVAC), 345
UPPERCASE option, 163
USB flash drive, 24
user interface (UI), *see also* interface
defined, 7, 118
PowerPoint's, 118–120

V

values
defined, 388
to XHTML tags, applying, 388–390
vector graphics, 276
vectors, 275–276
Ventura Publisher, 310
venture capitalist (VC), 469
vertical outlines, creating, 451–452
video/audio technology careers, 443–445
Views tab, 155–156
virus, 4
visual presentations, 125–131
accessibility, 126–127
multiple media, adding, 125–126
visual appeal of, 126–130
v key, 95–96
voiceover, 141
volume discounts, 270
calculating, 263, 463–465

W

Wacom boards, 7, 457
Wall Street, 498
Wal-Mart, 45
watermark, 182–183
custom, 184
Web, *see* World Wide Web
WebEasy Professional, 421
web hosting services, researching, 549–550
Web information, copy/paste, 47
Web page, 552
web resources, 47–48
websites
calendar, adding to, 430–436
creating, 377–419, 420–421
CSS, 388–396
HTML tags, 378–379
hyperlinks, 397–400
images, adding to web page, 399–400
map gadgets, adding to, 430–438
startup, 487–488
translation of, 441
XHTML tags, 388–390
Wikipedia, 204–205, 420
Windows, *see also* Windows 7
apps in, searching for, 18
Live Messenger, 471
Live Movie Maker, 275
Live Photo Gallery, 275, 279
operating system (OS), 6–12, *see also* operating system (OS)
Vista, 17, 279
XP, 17
windows
applications, 13–17
defined, 13
settings, changing, 39
Windows 7, 18–23, 279, 476
advantages of, 17
apps, 22–23, 38
gadgets, 22–23, 38
pin, 19–20
pop, 20–21
Quick Peek, 20
shuffle, 20–21
snap, 20–22
Windows Live Photo Gallery, 272–274
images, manipulating, 279, 393, 403
image settings, changing, 286–288
photo gallery, image options in, 274–279
wipe transitions, 139
Wizard, 264
w key, 88–89
Woollacott, Emma, 107
Word, Microsoft, 25, 27, 61, 151, 157, 159, 185, 191, 301, 358, 362, 365, 368, 371, 476
documents in Web, creating/sharing, 476–480
reference information in, entering, 354–356
works cited page with, creating, 357–358
WordArt, 319–322
adding, 320–321
shading, adding, 320–321
shapes, adding, 320–321
text banner, create using, 370
text boxes, adding, 320–323
WordPad, 13, 25
word processing skills, 151–210, *see also* format/formatting; informative tables
communication, 156–160
word user interface, 152–156
words
insignificant, 52
keying, score for, 91
word user interface, 151–154
book report, 154
learning, 151–152
practicing, 151–154
Views tab, 155–156
zooming tools, applying, 155–156
work-area, arrangement of, 67, 68
workbook, 210
work/life balance, 208
works cited pages, 347–349
creating, 350–351
worksheets, 216, *see also* sheets
worksheet tabs, renaming, 222–223
World Wide Web, 40–41, 397–399
apps, alternative, 417
citations in, creating, 358–360
corporate communications system on, starting up, 479–480
Google Docs, editing single, 475–476
Google systems apps, 471–474
hyperlinking, browser through, 42
information from, copying/pasteing of, 47
Internet, access an, 43–44
keyboarding in, keywords for, 110–112
Microsoft apps, 469–470
navigating through, 45
online presentations, 444–445
print and, gathering information for, 352–357
secrets of, revealing, 377–378
web resources, 47

writing
business plan, for startup, 480–481, 492–493
letter (e-mail) of application, 554
personal resumé, 552–554
résumé, 551–552
written recommendations, 560–562
letter of recommendation, acquiring, 561
for others, 561–562
WYSIWYG (what you see is what you get), 420

X

XHTML (Extensible Hypertext Markup Language) tags, 388–396
adding, 388–390
attributes to, applying, 392–393
breaks with single, 390–392
defined, 388
depreciation and, 388–389
horizontal rules with single, 390–392
line height/width, changing, 392–393
values to, applying, 392–393
x key, 94–95
XML (Extensible Markup Language), 388

Y

Yahoo!, 49, 412–413, 415, 494, 534, 548
electronic mail service, 56
y key, 90–91
YouTube, 40, 420

Z

Zeek, 481
z key, 101–102
zoom, types of, 292
digital zoom, 292
optical zoom, 292
zooming tools, 155–156
Zuckerberg, Mark, 41