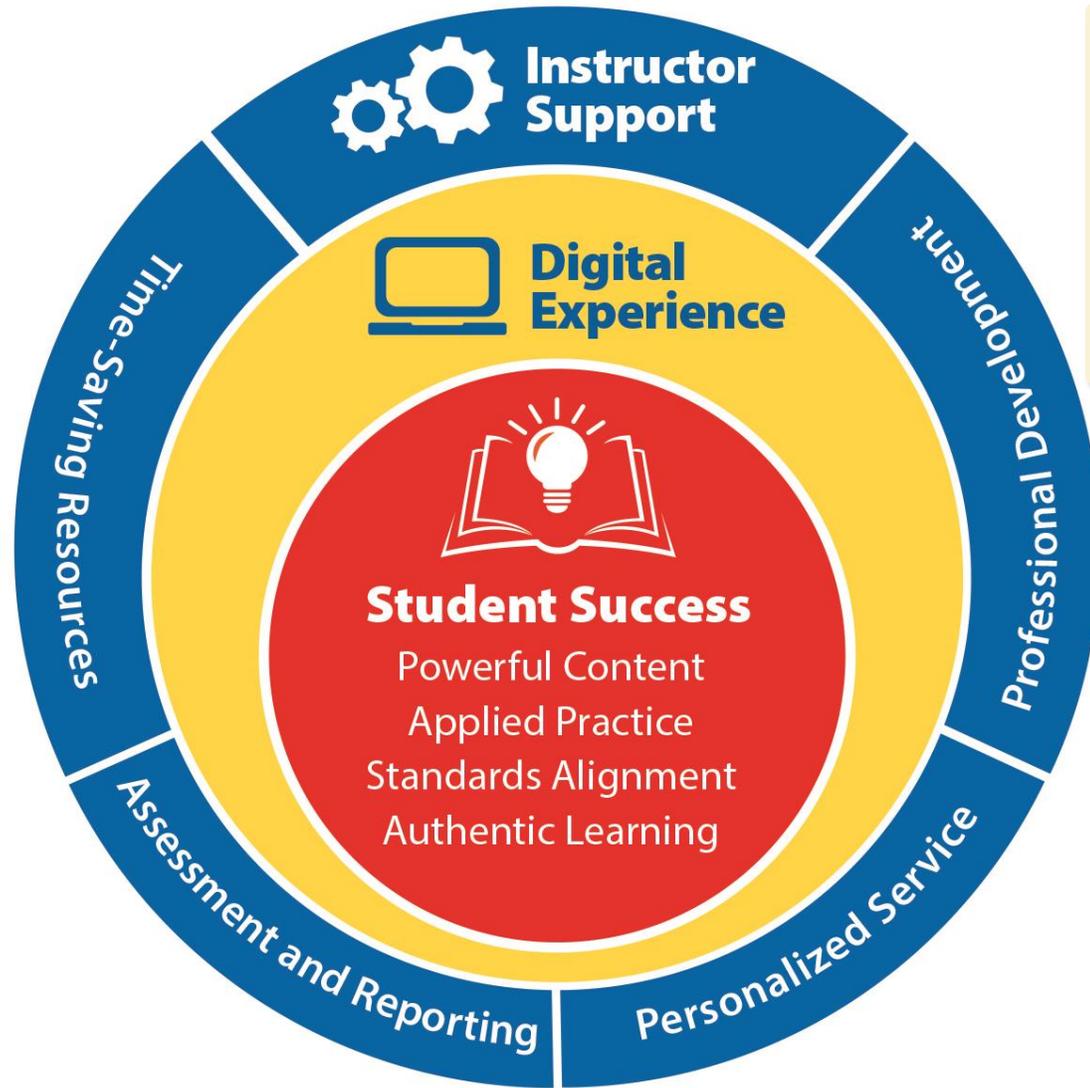




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Student Success Is At the Heart of What We Do



*Shown are examples across various titles

- ✓ Prepare for class
- ✓ Reinforce new concepts
- ✓ Assess learning

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Online Instructor Resources**



Principles of Digital Information Technology: Lesson Plan

Instructor:
Course:

Date:
Unit:

Chapter 1: Introduction to Information Technology

Section 1.1: Computers Are Everywhere

Learning Outcomes

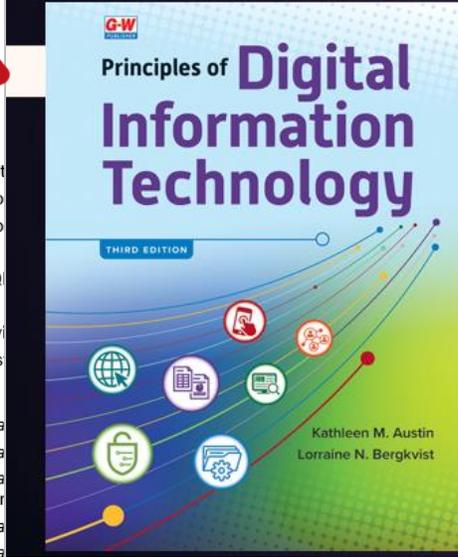
- 1.1-1 List the phases of the digital revolution.
- 1.1-2 Describe embedded computers.
- 1.1-3 Identify communication technologies.
- 1.1-4 Discuss emerging technologies.

Key Terms

- augmented printing
- augmented reality (AR)
- bandwidth
- cloud computing
- computer
- data
- digital revolution
- e-mail
- embedded comput
- emerging technolo
- information techno
- interactive book
- quick response (QR)
- smartphone
- software as a servi
- software-defined s

Materials

- *Principles of Digita*
- *Principles of Digita*
- *Principles of Digita*
(<https://www.g-wor>)
- *Principles of Digita*
- *Principles of Digita*



Presentations for PowerPoint

**Principles of
Digital
Information
Technology**

**Lesson Plans, Presentations,
and Answer Keys**



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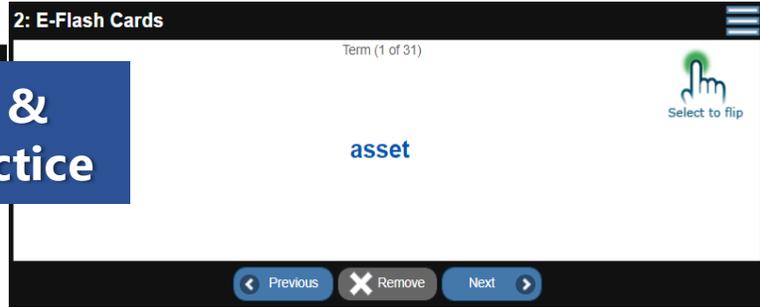
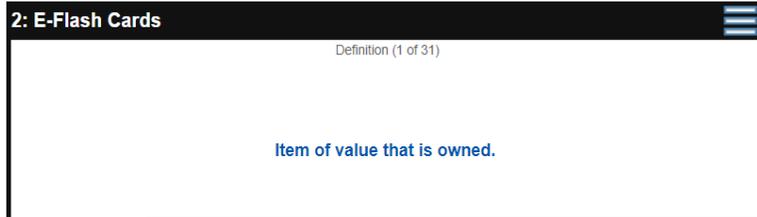
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LMS and CMS Integration Easy Navigation



E-Flash Cards & Vocabulary Practice

2: Vocabulary Game

Select a point value. Choose the term that matches the definition.

Score: 800

<input checked="" type="radio"/> 100	100	100	100
200	200	200	200
300	<input checked="" type="radio"/> 300	300	300
400	400	400	<input checked="" type="radio"/> 400

Definition: Act of giving money, goods, or services to meet the needs of others and support causes that are important to an individual.

- pay yourself first
- variable expense
- recordkeeping
- philanthropy

Check Answer

Interactive Activities

Name:
Date:
Class:

Chapter 1: Introduction to Information Technology

Review Your Knowledge Questions

1. Which event is not a major phase of the digital revolution? (1.1-1)

- A. Giant computers
- B. The Industrial Revolution
- C. Cloud computing
- D. Personal computers

Answer:

2. The Internet began as _____. (1.1-1)

- A. the World Wide Web
- B. NSFNET
- C. ARPANET
- D. WWW

Answer:

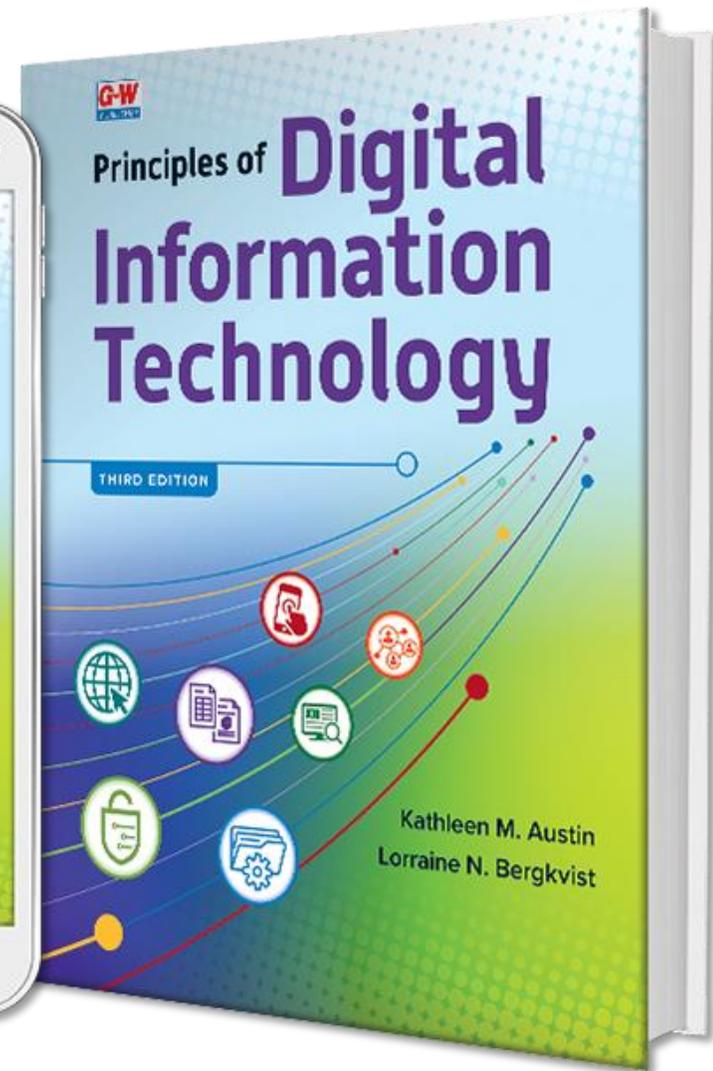
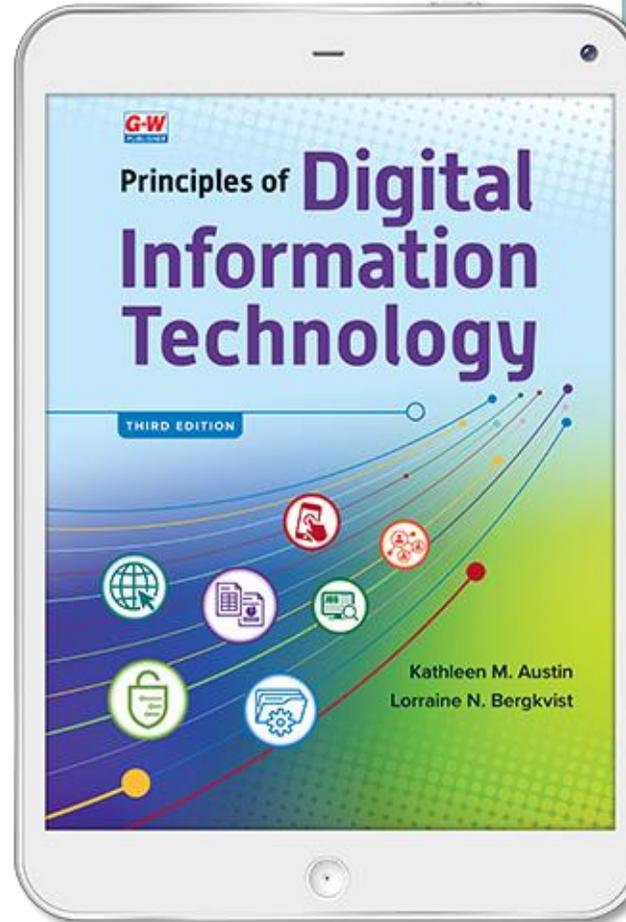
3. Which of the following does not describe or identify an advantage of communication technologies? (1.1-3)

- A. Speed
- B. Reach
- C. Microfinancing
- D. Emerging digital middle class

Answer:

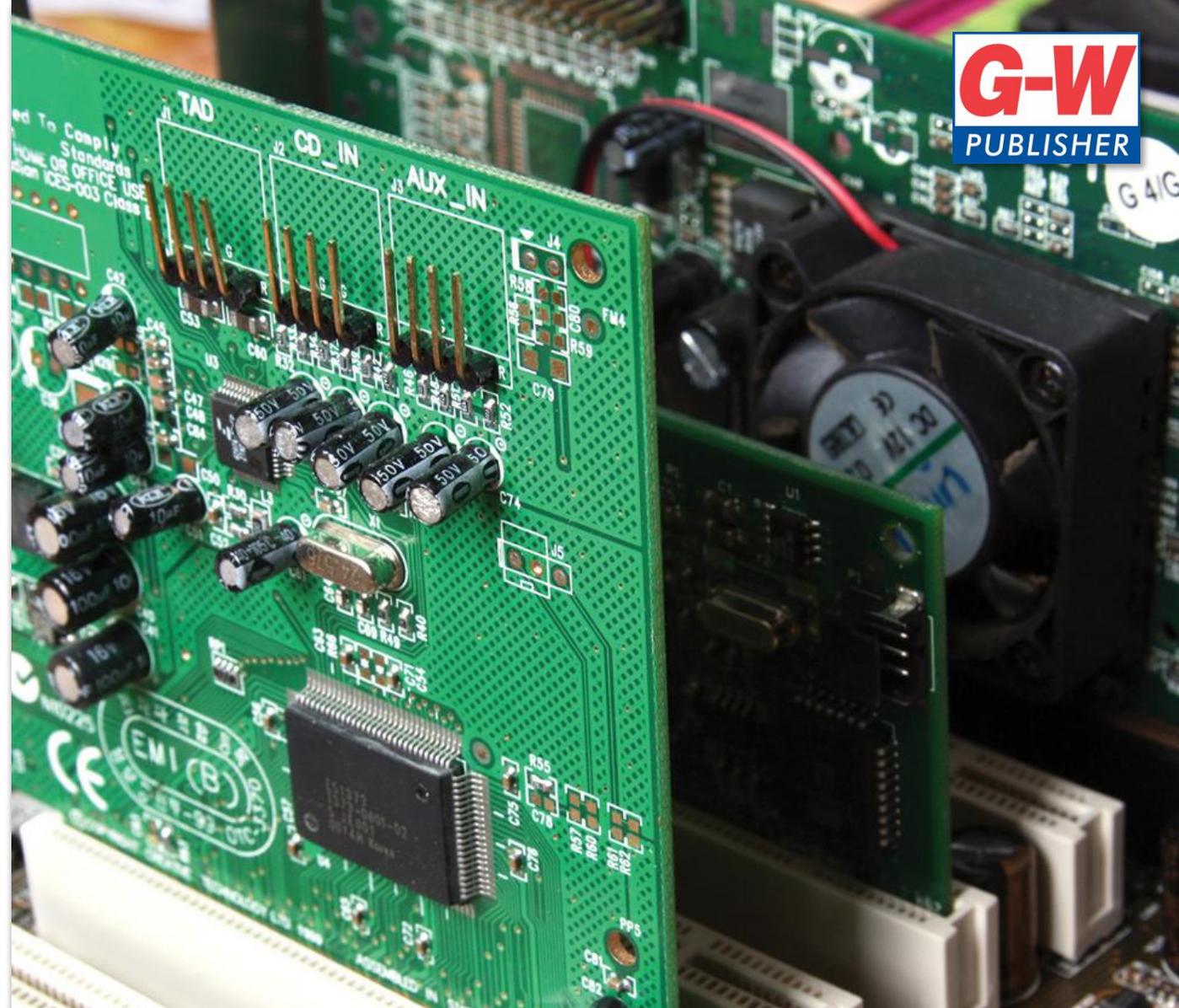
Review Activities

Integrate G-W Digital Resources



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by Kathleen M. Austin & Lorraine N. Bergkvist

Unit 1	Computing Fundamentals
Chapter 1	Introduction to Information Technology
Chapter 2	Hardware
Chapter 3	Software
Chapter 4	File Management
Chapter 5	Purchasing, Maintaining, and Troubleshooting
Unit 2	Key Applications
Chapter 6	Common Microsoft 365 Application Features
Chapter 7	Word-Processing Software
Chapter 8	Formal Documents
Chapter 9	Presentation Software
Chapter 10	Spreadsheet Software
Chapter 11	Advanced Spreadsheet Uses
Chapter 12	Database Software
Chapter 13	Personal Information Management Software
Unit 3	Living Online
Chapter 14	Internet and the World Wide Web
Chapter 15	Communication Networks
Chapter 16	Electronic Communication and Collaboration
Chapter 17	Security, Privacy, and Safety
Chapter 18	Careers in IT



Common Microsoft 365 Application Features

Sections

- Section 6.1 Starting Word, Excel, and PowerPoint
- Section 6.2 Saving, Printing, and Opening Documents
- Section 6.3 Editing and Formatting
- Section 6.4 Document Views, Options, and Help

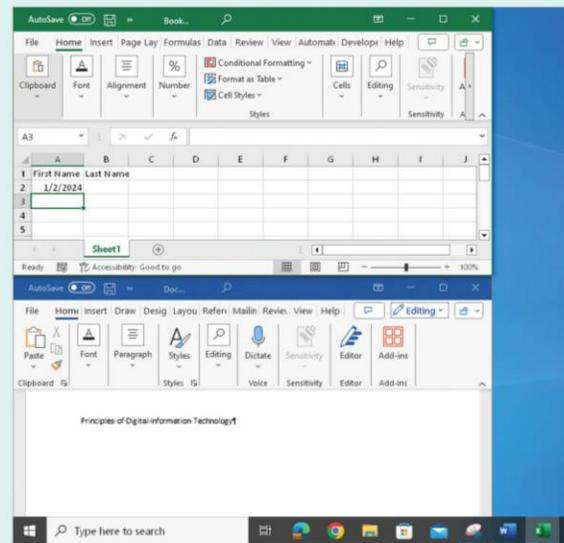


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HANDS-ON EXAMPLE 6.1.3 (CONTINUED)

Managing Open Windows

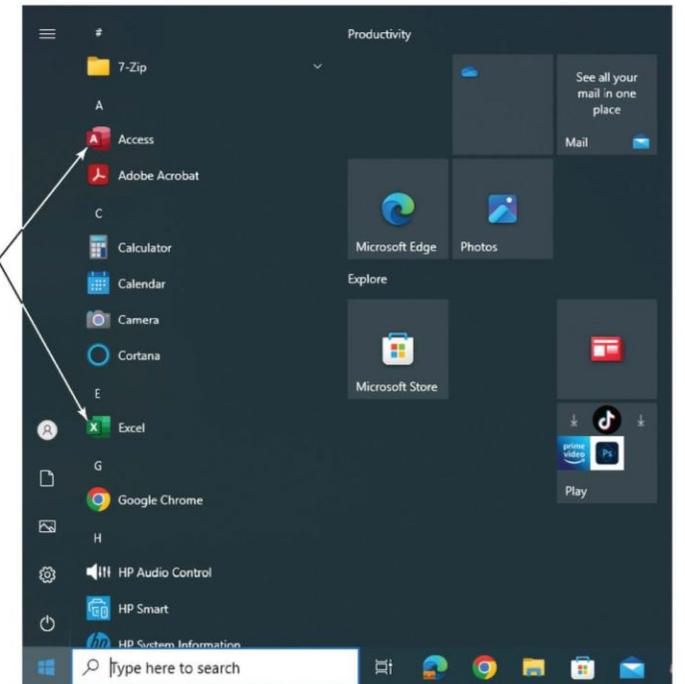
7. Minimize the Word window by pressing the minimize button in the upper-right corner of the window. Although the window is no longer visible, Word is still loaded in the computer's memory. The button corresponding to Word is still displayed on the taskbar.
8. If the Excel window is not active, make it active by clicking the button on the taskbar corresponding to Excel.
9. Click cell **A1**, which is the upper-left cell, so that it is active (surrounded by a thick border).
10. Enter your first name in cell A1.
11. Press the [Tab] key to fix the content of cell A1 and make cell B1 the active cell.
12. Enter your last name in cell B1. Do not be concerned if part of the first name is over
13. Press the [Enter] key to fix the content of cell B1 and make cell A2 active.
14. Enter the following formula in cell A2: =TODAY().
15. Press the [Enter] key to fix the content. Today's date appears in cell A2.
16. Maximize the Word window, and then right-click on an empty space on the taskbar shortcut menu.
17. Click **Show windows stacked** in the shortcut menu. The Word and Excel window positioned as shown. To make either window active, click anywhere within that window.



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18. Applying what you have learned, use the shortcut menu to display the windows cascading.
19. Applying what you have learned, minimize each window so the desktop is visible.

Microsoft 365 programs



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What's New to the Edition



Section 1.1

Computers Are Everywhere

❓ ESSENTIAL QUESTION

How has the digital revolution changed communication?

Learning Outcomes

- 1.1-1** List the phases of the digital revolution.
- 1.1-2** Describe embedded computers.
- 1.1-3** Identify advantages of advances in computing.
- 1.1-4** Discuss emerging technologies.

Key Terms

- augmented printing
- augmented reality (AR)
- bandwidth
- cloud computing
- computer
- data
- digital revolution
- e-mail
- embedded computer
- emerging technologies
- information technology (IT)
- interactive book
- quick response (QR) code
- smartphone
- software as a service (SaaS)
- software-defined storage

Chapter 1 Reading Prep

As you read this chapter, determine the author's point of view or purpose. What aspects of the text help to establish this purpose or point of view?



Chapter 1 Overview

Most young adults have been using computing devices such as tablets or smartphones since they could read and write, or even before then. In the traditional sense, computers are used to complete school assignments, conduct business, and—most of all—communicate. Most people are computer *users*; they know how to *operate* these devices. After completing this course, you will become computer *literate*. That is, you will understand more than just how to operate computers. You will understand not only the details of how computers work, but also the impact computers have on your life and career.

This chapter provides an overview of the field of information technology (IT). You may already know some of the information presented, but much of it will likely be new to you. You will learn about emerging technologies as well as the arithmetic that computers use. Additionally, information is included about future career opportunities. Furthermore, other topics are discussed to start you thinking about issues faced by IT professionals and society as a whole. Perhaps you will be able to solve some of these problems yourself.

Chapter-Opening Materials

WORD 5.1.3, 5.2.6
POWERPOINT 4.4.1

To insert a 3D image, select **Insert>3D Models**. Like the **Insert>Picture** option, the user will be presented with options to import from the device or look for an online model. Select the desired model and click the **Insert** button. Users can also choose more than one model. Practice inserting 3D Models, however, as many 3D images have brought many applications.

Image Location and Size

When an image is selected, small circles called handles are displayed at the middle of each edge and at the corners, as shown in Figure 6-15. These are image manipulation tools used to change the size of images, the corner handles are used to resize the image proportionally, which means the ratio of height to width remains the same. The top and bottom, and sides are used to resize the image independently, which means the ratio of height to width will change when these handles are used. For 3D images, the frame will grow or shrink when the handles are used, but the proportions of the 3D model itself will not change no matter how you use it.

The location of an image can be adjusted by dragging the selected image, not on a handle, and drag the image to a new location that depending on how the image was inserted, its position will be relative to the text, centered, left, right, or top. To align the text around, through, above, or below an object, select **Picture Format>Arrange>Wrap Text** to display the **Wrap Text** menu. You can also right-click the image or model and select **Wrap Text** from the shortcut menu. Either method results in a cascading menu of options for text wrapping.

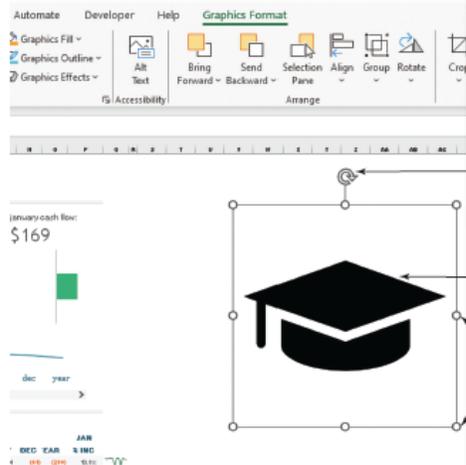


Figure 6-15 When an image is selected, handles are displayed to resize the image.

MOS Certification Objectives

WORD

- **1.11** Search for text
- **1.13** Move to specific locations and objects in documents
- **1.14** Show and hide formatting symbols and hidden text
- **1.21** Set up document pages
- **1.22** Apply style sets
- **1.31** Save and export documents in alternative file formats
- **1.33** Modify print settings
- **1.4** Inspect documents for issues (all)
- **2.11** Find and replace text
- **2.21** Apply text effects
- **2.22** Apply formatting by using Format Painter
- **2.25** Clear formatting
- **3.21** Sort table data
- **3.3** Create and modify lists (all)
- **5.0** Insert and format graphic elements (all)

POWERPOINT

- **1.22** Display presentations in different views
- **1.23** Modify built-in presentation properties
- **1.31** Print slides
- **1.51** Protect presentations by using password
- **1.53** Inspect presentations and correct issues



**Microsoft Office Specialist
(MOS) Associate certifications**

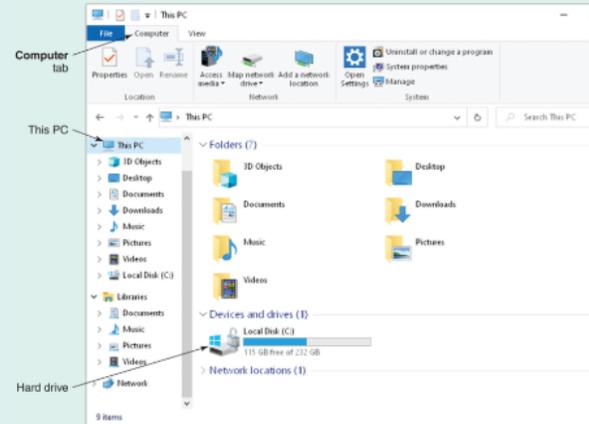


HANDS-ON EXAMPLE 2.1.2

Basic Computer Components

Locate a desktop or notebook computer to use for this activity. Do not open the computer case unless directed to do so by your instructor.

1. In Windows 10, click **File Explorer** in the taskbar at the bottom of the screen (the icon looks like a folder), and then click **This PC** in the left-hand side of File Explorer. A list of hard drives and devices with removable storage is displayed as shown in the image.



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2. Click the **Computer** tab at the top of the window and select **Properties** from the menu that is displayed. The **Settings** window will open.
3. Identify the type of processor.
4. Identify the amount of installed memory (RAM).
5. List the Windows edition and version the computer is using.

HANDS-ON EXAMPLE 2.1.1

Component Identification

Using the image shown, identify the computer hardware components labeled with numbers.



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1. Object number 1 is called a(n) _____.
2. Object number 2 are called _____.
3. Assembly number 3 is called a(n) _____.

Special Features



STEM

Technology

Chuck Hull invented the first 3D printer and obtained the first patents in 1986. Since then, 3D printers have become affordable and are a great way to implement STEAM (STEM plus arts) into modern classrooms. The 3D technology used by drafting software and printers is an enriching teaching tool that inspires creativity which simultaneously allows students to write engaging programs to bring imagination to life.

STEM

Science

Asymmetry is commonly used in photography and videography to create visual interest. Asymmetry is common in nature and biology. For example, the fiddler crab has one small claw and one large claw. The small claw is used for feeding, where the large claw is used for defense or courtship.

FYI

The concept of cloud computing dates back to the 1950s. Functional precursors to the cloud began appearing in the 1990s.

FYI

Kanji are characters in the Japanese written alphabet. QR codes were invented in 1994 for use in the Japanese automotive manufacturing industry.

ETHICS

Bias-Free Language

As you go to work or school each day, you may encounter others who use biased words and comments. Using age, gender, race, disability, or ethnicity to describe others is unethical and sometimes illegal. It is preferable to use bias-free language. Bias-free language does not discriminate or use a person's age, gender, race, ability, or ethnicity to describe them. Use bias-free language in all of your communication to show respect for others. For example, instead of using the term *businessman*, use the term *businessperson*.



CAREER SKILLS

Agriculture and Food Science Technician

Agricultural and food science technicians often work in laboratories assisting agriculture and food scientists. They perform duties such as measuring and analyzing food quality. They use word processing, spreadsheets, and databases to analyze and report on the research results. On occasion, they prepare presentations for the scientists as well.



Special Features





TITANS OF TECHNOLOGY

Jakob Nielsen

Jakob Nielsen, a cofounder of the Nielsen Norman Group, is a consultant on the usability of the World Wide Web and holds a PhD in human-computer interaction. He studies user interactions and proposes quick and easy ways to implement software functions that increase user productivity. Early in his career, Dr. Nielsen worked mostly on large-scale software applications. However, while at Sun Microsystems in the 1990s, he switched to study the usability of what was then the emerging technology of the World Wide Web. While his focus has been on the Internet, his advice to keep common actions performed in the same way is a key concept in the design of user interfaces. Dr. Nielsen has published many books and articles. His 1989 text *Coordinating User Interfaces for Consistency* is considered a standard in how to design a consistent look and feel for software. It is still in demand and frequently cited.

GREEN TECH

Online Sales

Online shopping accounts for roughly 15 percent of all business transactions. While that may seem like a small percentage, that equates to nearly one trillion dollars. To aid customers in online shopping, many companies offer convenient digital coupons that are sent directly to customers through e-mail, text messages, or QR codes. Digital coupons eliminate the costs and resources involved in printing and physically distributing coupons. This makes digital coupons a convenient, environmentally friendly solution that benefits both customers and businesses.

Special Features

ombination. To paste in Microsoft 365, press the [Ctrl] key combination. To cut content in Microsoft 365, press the [Ctrl] key combination. To select what to cut. Then, click press the [Ctrl] key combination.

Identify methods used to format text

Formatting text means changing the appearance of the characters. A style is a group of formatting settings that can be applied in one step, which is an efficient method of formatting text. In general, formatting is accomplished through fonts, styles, and the Format Painter tool.

Section 6.4 Document Views, Options, and Help

6.4-1 Compare and contrast different views of a document.

There are many ways to view a document in Microsoft 365.

Apply Your Knowledge

Answer each of the following to the best of your ability.

1. Launch Microsoft PowerPoint. List the tabs available in the ribbon. Do the same for Microsoft Excel and Microsoft Word. Can you identify any patterns in which tabs are available and the order in which they appear? Write a one-page paper explaining the interface of Microsoft 365. Discuss similarities and differences between the applications.
2. Launch Microsoft Excel, begin a blank spreadsheet, and save it as *LastNameInvoice* in the **Chap06** folder on your PRINC-OF-DIT flash drive. Be sure to substitute your own last name for *LastName*. Enter the data shown below to create an invoice. Enter the word *invoice* with

Users can also get help by entering text into the Search help bar.

Review Your Knowledge

Multiple Choice

Select the best response.

1. What is a document preformatted for a specific use that may contain placeholder text or images the user replaces with actual content? (6.1-1)
 - A. clipboard
 - B. template
 - C. form
 - D. presentation
2. What is the vertical line called that shows where text will be inserted? (6.1-2)
 - A. key tip badge

Challenging position in operations management where over twenty years of experience in top-level administration, financial management, budgeting, logistics, compliance, and information technology can be combined with skills in negotiation, leadership, communication, analysis, team building, problem solving, and attention to detail to maximize the success of a nonprofit organization.

5. Launch Microsoft PowerPoint, and begin a new blank document. Launch the help function, and search for help on adding a motion path. How many results are returned? Evaluate the returned results for relevance, and click the article that appears most relevant. Read the article, and write a one-page paper summarizing your findings.

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Communication Skills



Reading. Read a magazine, newspaper, or online article about an IT company. Analyze the article and distinguish the facts from the author's point of view on the subject. Write a report in which you draw conclusions about the importance of information technology. Use visual support, such as graphs, to share specific evidence from the article with your class to support your understanding of the topic.

Speaking. Select three of your classmates to participate in a cooperative learning situation such as a discussion panel. Acting as the team leader, name each person to a specific task such as timekeeper, recorder, etc. Discuss the topic of buying an electronic store franchise or a local electronics business that is available for sale. What are the advantages and disadvantages of not starting a business from scratch? Present the panel on task and promote democratic discussion.

Writing. Making small improvements in the way things are done can bring about great benefits. Choose three entrepreneurs in the information technology field, and explain how they used innovation to start a new company or improve an existing product.

Internet Research

Office Suites. Research office suite software available aside from the applications within Microsoft 365, including OpenOffice, LibreOffice, and Google Workspace. Create a Venn Diagram for each to illustrate the similarities and differences between the software you identified and Office 365.

Teamwork

Working with your team, make a list of good listening skills versus bad listening skills. After you have completed the list, prepare a short skit that demonstrates both types of listening skills in an IT help desk setting. Incorporate both verbal and non-verbal communication tools to show active listening, such as body language, asking questions, or note-taking. Perform your skit in front of the class. Afterward, ask the audience to give feedback on the information you provided them.

Portfolio Development



File Structure. After you have chosen a file format for your documents, determine a strategy for storing and organizing the materials. The file structure for

storing digital documents is similar to storing hard copy documents.

First, you need a place to store each item. Ask your instructor where to save your documents. This could be on the school's network or a flash drive of your own. Next, decide how to organize related files into categories. For example, *Certificates* might be the name of a folder with a subfolder named *Community Service Certificates*. Within that folder may be another subfolder named *School Certificates*. Appropriate certificates would be saved in each subfolder. The names for folders and files should be descriptive but not too long.

1. Decide on the file structure for your documents.
2. Create folders and subfolders on the school's network drive or your own flash drive.

CTSOs



Extemporaneous speaking. Extemporaneous speaking is a competitive event you might enter with your CTSO. This event allows you to display your communication skills, specifically your ability to organize and deliver an oral presentation. At the competition, you will be given several topics from which to choose. You will also be given a time limit to create and deliver the speech. You will be evaluated on your verbal and nonverbal skills as well as the tone and projection of your voice. To prepare for an extemporaneous speaking event, complete the following activities.

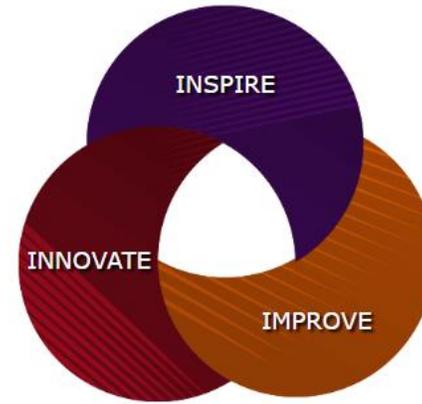
1. Ask your instructor for several practice topics so you can practice making impromptu speeches.
2. Once you have a practice topic, jot down the ideas and points to cover. An important part of making this type of presentation is that you will have only a few minutes to prepare. Being able to write down your main ideas quickly will enable you to focus on what you will actually say in the presentation.
3. Practice the presentation. You should introduce yourself, review the topic that is being presented, defend the topic being presented, and conclude with a summary.
4. Ask your instructor to play the role of competition judge as you give the presentation. Afterward, ask for feedback from your instructor. You may also consider having a student audience listen and give feedback.
5. For the event, bring paper and pencils to record notes. Supplies may or may not be provided.

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End-of-Chapter Content



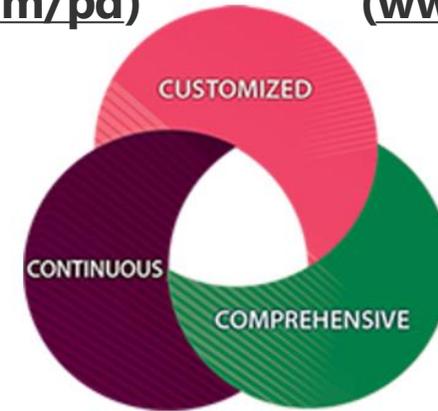
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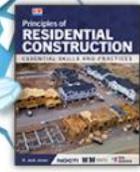
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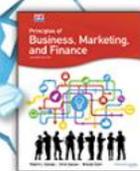
First Day Icebreakers 

Snap, Clap, Pop: Construction

Type: Downloadable Activities
Grade: 9-12
Subject: Architecture and Construction

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Snap, Clap, Pop: Health Science

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Snap, Clap, Pop: Animal Science

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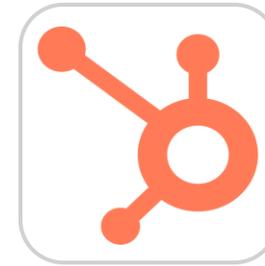


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