The 21st Century COACH

21st CENTURY SKILLS IN 21-MINUTE LESSONS

SADDLEBACK
EDUCATIONAL PUBLISHING

Using Technology, Information, and Media

T

Defining Types of Information

INTRODUCE **THINK ABOUT IT** *What types of information are you looking for, and where can you find them?*

TEACH **LISTEN UP!** Libraries are full of books, and the Internet is full of Web pages. Knowing where to find specific information shortens your search time. **Reference works**, which may be found in **databases**, contain specific information. For example:

- dictionary: contains word definitions and pronunciations
- thesaurus: contains synonyms, or words that mean the same thing as other words
- encyclopedia: contains articles on many topics
- atlas: contains maps and information about geography
- almanac: contains a collection of facts and statistics (published yearly)

In addition, there are categories of Web site **domain names**. A .gov site is an official U.S. government site. University and educational sites end in .edu. Sites for non-profit organizations end in .org, and commercial sites end in .com. The material found in commercial sites may not be as reliable or trustworthy as that found in other domains.

LET'S EXPLORE Challenge students to name specific types of information resources.

- As a class, spend 1–3 minutes listing examples of everyday reference information that students may use daily, for example, phone or social-network address books.
- Write examples on the board.
- Ask class: *How do everyday references save you time and trouble?*

TIME FOR Q & A Discover more about types of information resources.

▶ *In what reference works could you find which team won the 2010 Superbowl?*
Examples: almanac, NFL Web site

▶ *In what reference work could you find which country is east of Spain?*
Example: atlas

REFLECT *How can defining types of information help you with your work?*

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DEFINING TYPES OF INFORMATION

LESSON OBJECTIVE
Identify different types of information, including print, electronic, and media-based information.

TERMS TO KNOW
databases: electronic collections of information
domain names: types of Web site categories, including .gov, .org, .edu, and .com.
reference works: print or electronic resources that contain facts or other information

GOES WELL WITH LESSONS:
22, 38, 83

21st Century Activities ... Each done in under 21 minutes

PRACTICE

Compare Resources

Small groups find information about topics using assigned reference works. Write these topics on the board: *Martin Luther King, Jr.; the Brooklyn Bridge; the World Series.*

- Assign each group a different reference work: a dictionary, an encyclopedia, an almanac, or an official Web site.
- Have groups use their reference works to find information on the three topics. Groups then compare the information each resource provides on their topic.

☐ CLASS WORK ☐ HOMEWORK
☐ EXTRA CREDIT ☐ PROJECT

APPLY

Types of Information

Pairs complete **Activity Sheet 37.**
- Read aloud the descriptions of different types of information sources.
- Pairs match the types of information with their definitions.
- Give pairs access to online or hard copy reference works to answer *Apply* questions.

Possible Answers 1. J; 2. G; 3. B; 4. C; 5. F; 6. A; 7. H; 8. E; 9. I; 10. D; 11. think deeply about; 12. Washington; 13. Answer will vary, depending on which President is in office.

☐ CLASS WORK ☐ HOMEWORK
☐ EXTRA CREDIT ☐ PROJECT

EXTEND

Connect to Business Literacy

When you are looking for a job, you turn to various resources and fully research the job.

Use online or print information sources to find a job posting. Then use appropriate sources of information to find out the history of the company and the types of products or services it provides. Write the information on a **Computer Screen** graphic organizer **(p. T7)**, and use it to do a short presentation for the class.

☐ CLASS WORK ☐ HOMEWORK
☐ EXTRA CREDIT ☐ PROJECT

Types of Information

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WHY TRY?
Because—
I can find good information!

INVESTIGATE Once you know the type of information you need, you can look in various reference works to find the information. Reference works may be shelved in the library reference section or found in online databases. Reference works organize information by type and category. Online information is categorized by domain names:

- .gov for government
- .org for non-profit organizations
- .com for commercial sites
- .edu for educational sites

DEFINE Match the following definitions with their descriptions on the right.

1. _____ **dictionary**
2. _____ **encyclopedia**
3. _____ **atlas**
4. _____ **thesaurus**
5. _____ **.gov**
6. _____ **almanac**
7. _____ **.com**
8. _____ **quotation book**
9. _____ **.edu**
10. _____ **.org**

a. published yearly, it gives current facts and statistics on many subjects

b. contains maps, charts, and facts about places

c. book of synonyms

d. domain name for a non-profit site

e. collection of famous sayings

f. domain name for government site

g. set of books containing alphabetized articles on almost any subject

h. domain name for a business

i. domain name for a school Web site

j. alphabetical collection of words and their definitions

APPLY Work with your partner. Use the types of information resources described above to answer the following questions.

11. What does the word *cogitate* mean? _____

12. In what state is the Columbia River? _____

13. In what year was the current President of the United States born? _____

Defining Media

INTRODUCE **THINK ABOUT IT** *What do you think of when you hear the word* media? *Is "media" the message or the way the message is delivered?*

TEACH **LISTEN UP!** *Media* refers to various means of communication. Within each category, there are many different ways to communicate. Media can be broken down into four main categories:

1. **Television media:** commercials, news programs, **PSAs**
2. **Radio media:** talk radio, **podcasts,** news programs
3. **Print media:** newspaper and magazine articles, ads, editorials, opinion pieces
4. **Computer media:** Web sites, blogs, online magazines, ads

Conclude by telling students that the world of media is always expanding. As people seek new ways to spread their message, new ways of communicating are developed.

LET'S EXPLORE Discuss how different types of media have created 24-hour news access.

- Brainstorm a list of news sources that students use. The list may include the Internet, news programs on TV and the radio, and newspapers.
- Discuss how the Internet has expanded the ways we receive news. Point out that this is one example of how demand can expand media.

TIME FOR Q & A Discover more about various types of media.

▶ *What are some examples of local media?*
Examples: local newspaper, school newsletter, cable access station

▶ *What form of media has grown the most in the past few years?* computer media

▶ *What are some examples of national media?*
Examples: national newspaper, network news programs

▶ *Where do most of your media messages come from?*
Examples: TV, Internet

REFLECT *Do you think social networks are an example of computer media? Why or why not?*

LESSON OBJECTIVE
Define the word *media* and identify different types of media.

TERMS TO KNOW
media: various means of communication
PSAs: Public Service Announcements; radio or television ads that raise awareness about issues, such as health and safety
podcasts: Web-based audio recordings available for download

GOES WELL WITH LESSONS: 22, 50, 108

21st Century Activities ... Each done in under **21** minutes

PRACTICE

Is It Media?
Partners practice identifying various types of media.
- Have pairs take turns describing a recent article, news program, ad, or other type of media they have seen.
- After the first student has finished the description, the second student identifies what category applies. Is it print media, television, radio, or computer?
- Tell pairs to alternate until time is called.

☐ CLASS WORK   ☐ HOMEWORK
☐ EXTRA CREDIT   ☐ PROJECT

APPLY

Media ID
Individuals complete **Activity Sheet 49.**
- Study the chart, reading the media examples and reviewing the media categories.
- Identify categories for each example in *Classify*.
- Create and categorize two examples of your own for *Apply*.
Possible Answers 1. Print **2.** Computer **3.** Television **4.** Computer **5.** Print, Computer **6.** Television, computer **7.** Television, radio, print, computer **8–9.** Answers will vary.

☐ CLASS WORK   ☐ HOMEWORK
☐ EXTRA CREDIT   ☐ PROJECT

EXTEND

Connect to Global Awareness
International news is delivered through all forms of media. You may read international news stories online or in the newspaper. You may see international stories on television.

What images come to mind when you think of international media? Search the Internet for images that you think represent international media. Create a slide show or multimedia presentation of the images you find. Your presentation is another type of media!

☐ CLASS WORK   ☐ HOMEWORK
☐ EXTRA CREDIT   ☐ PROJECT

Media ID

INVESTIGATE ▶ Read the headings on the chart below. The four categories of media are listed across the top. Examples of media are listed in the first column.

	Print	Radio	Television	Computer
1. A current events article in a national magazine				
2. A podcast by a popular DJ				
3. A TV news documentary				
4. Homework tips from a Web site				
5. Your school newspaper				
6. A video of your home team's game, posted online				
7. An advertisement for a local theater's production				
8.				
9.				

CLASSIFY ▶ Decide on the category for each example. In some cases, the media examples can fit into more than one category. Place a check mark in the columns to show the category for each example.

APPLY ▶ The last two boxes in the first column are blank. Write two examples of media in the boxes. Then select the best category or categories for each example.

Defining Technology

INTRODUCE THINK ABOUT IT *What do you think of when you hear the word technology? Does it have only one definition or many?*

TEACH LISTEN UP! Many people think of the word *technology* only as it relates to digital technology, such as computers. But the word can be used in countless ways. In fact, *technology* refers to the practical application of knowledge. Here are some kinds of technology you might see:

- **Medical technology:** a huge category that includes everything from artificial joints and organs to MRIs and laser-surgery
- **Assistive technology:** technology used to help people with disabilities to function in various environments
- **Information technology:** technology related to the ways people share information, such as cell phones, the Internet, and satellite TV

LET'S EXPLORE As a class, brainstorm ways people have communicated since the beginning of history.

- Create a list on the board of ways people have communicated, such as cave paintings, snail mail, the telegraph, telephones, cell phones, e-mail, and so on.
- Place checkmarks by the modern, most-often used methods of communication today.
- Discuss how these modern methods have changed the world.

THINK, PAIR, SHARE Ask pairs to discuss how technology helps people do research today (for example, the Internet, microscopes, space-travel technology, and so on). Ask random pairs to share their ideas with the class.

REFLECT *How does technology help you in your everyday life?*

LESSON OBJECTIVE
Discover how technology can be used to research and communicate.

TERMS TO KNOW
technology: a practical application of knowledge

GOES WELL WITH LESSONS:
33, 62, 93

21st Century Activities ... Each done in under **21** minutes

PRACTICE

Technology Game
- Give students three **Note Cards (p. T10).** Have them write an example of each technology. Prepare your own note cards with additional examples.
- Divide the class into two teams. One player from each team comes to the front at a time. Read the example on the card, and have the two players race to say the technology type.

There may be some overlap in the examples on the cards. Cull them as you go through them. Also remember that some examples may fall into multiple categories.

☐ CLASS WORK ☐ HOMEWORK
☐ EXTRA CREDIT ☐ PROJECT

APPLY

Overlapping Technologies
Individuals complete **Activity Sheet 61.**
- Students read about technology.
- Students match technologies with their technology types.
- For *Synthesize*, distribute copies of the **Journal (p. T3).** Students then write about examples of the technology types and the importance of technology in everyday life.

Possible Answers 1. Medical **2.** All 3 types **3.** Information *SYNTHESIZE:* Answers will vary but should clearly fall into the prescribed categories.

☐ CLASS WORK ☐ HOMEWORK
☐ EXTRA CREDIT ☐ PROJECT

EXTEND

Connect to Health Literacy
Technology has caused many changes in healthcare. The medical industry may soon keep digital medical records that, once a patient signs a form, can be accessed by other medical workers.

People don't all agree on this issue. Some say that patients should be able to give doctors only the information they need instead of all-or-nothing. Others say that having a full medical history will help doctors keep patients safe. Form two groups with your classmates: One for the digital records, and one against. Debate the issue in class.

☐ CLASS WORK ☐ HOMEWORK
☐ EXTRA CREDIT ☐ PROJECT

Overlapping Technologies

INVESTIGATE ▶ Read about technology.

Technology is a term that can be applied to work in any field. The word *technology* means knowledge that is applied in a practical way. This worksheet explores a few types of technology that help people research, communicate, and stay healthy. These technology types are:

- **Medical technology:** This includes every technology related to health and medicine.
- **Assistive technology:** This includes every technology that helps people with disabilities live and function in the world.
- **Information technology:** This includes every technology used to help people communicate.

APPLY ▶ Read about each device. Then, use what you have learned about the three types of technology above to help you choose the technology type that matches that device. Circle your answer(s). Some devices may have more than one answer.

1. CAT scans (or CT scans) are a way to see inside the human body. They are used to find a number of diseases, including cancer.

Medical Technology   Assistive Technology   Information Technology

2. The TDD (Telephone Device for the Deaf) helps people with deafness use the telephone. It translates incoming messages from voice to type. It also translates outgoing messages from type to voice.

Medical Technology   Assistive Technology   Information Technology

3. Satellites are devices sent into space to broadcast information, such as television signals, to a broad area.

Medical Technology   Assistive Technology   Information Technology

SYNTHESIZE ▶ In your Journal, write one more example of each kind of technology described above. Also include information about how any or all of these technologies have helped you, your friends, or your family members.