

# Chapter 16 Lesson Plan

## Construction Fundamentals

Chapter Resources		
Textbook Activity	Teacher CD	Online Learning Center
<b>Design a Highway</b> Design and map an improved highway.	Lesson Plan Flash® Presentation ExamView® Chapter Test	Chapter Activities Chapter Quizzes

### FOCUS

Chapter 16 discusses the four major categories of construction—residential, industrial, commercial, public works—with details of each type.

### Objectives

- Define and give examples of the four major types of construction.
- Name and describe six types of structures.
- Name and describe the three types of tunnels.
- Explain the reasons for building a canal.
- List the seven types of bridges.

### Tying to Previous Knowledge

Have each student identify or name one structure from any of the four categories.

### TEACH

1. **Picture Display.** Make a bulletin board that is a montage of construction pictures. To prepare, simply put the title “Construction” across the top of the bulletin board. Once you begin discussing Chapter 16, have each student bring in at least one small picture that represents a type of construction.
2. **Picture Display, option two.** As an alternative to the above, divide the bulletin board into four sections, one for each type of construction. Put up titles for each section (residential, industrial, commercial, and public works). Underneath each title, place pictures that illustrate that type of construction.
3. **Systems model.** Review the basic systems model (discussed in Chapter 3) with the students. Ask for examples of input, process, output, and feedback that relate to the construction system.
4. **Real-world applications.** Since this chapter introduces construction, discuss with students any projects that are ongoing within the community.
5. **Development of technology.** Show a video of some noteworthy construction undertaking(s).

# Chapter 16 Lesson Plan

## Construction Fundamentals (continued)

### ASSESS

Have students complete Chapter Test 16. Chapter tests are found in the *ExamView*® Assessment Suite on this Teacher Resource CD-ROM.

### Reteach

1. To give some insight into powered machines in the construction trade, have the students use a manual and an electric stapler side by side. Ask the class to discuss the pros and cons of each.
2. Ask the class to analyze why commercial structures (such as skyscrapers) in urban areas are relatively small in footprint but tall in height, and residences are relatively short but have a proportionally larger footprint.

### Enrich

1. Review a road or street map with the class, focusing on the concept of scale. For example, ask students to determine distances. Why might a map deliberately not be drawn to scale?
2. Ask the class why irrigation canals are almost always designed to run downhill from the water source. Why can water not be pumped in an uphill direction?

### REFLECT

Construction is such a large part of our society that it is not unlikely for the class to be able to name 25 construction jobs right off the top of their heads. Emphasize that building and rebuilding are activities that seem to go on continuously. Discuss patterns of building—the growth of suburbs, for example—and their effects on our society.