

## Chapter 7 Cell Structure and Function

### Section 7–1 Life Is Cellular (pages 169–173)



**TEKS FOCUS:** 3F History of biology and contributions of scientists; 4A Parts of prokaryotic and eukaryotic cells

*This section explains what the cell theory is. It also describes the characteristics of two categories of cells, prokaryotes and eukaryotes.*

#### Introduction (page 169)

1. What is the structure that makes up every living thing? \_\_\_\_\_

#### The Discovery of the Cell (pages 169–170)

2. What was Anton van Leeuwenhoek one of the first to see in the 1600s? \_\_\_\_\_

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3. What did a thin slice of cork seem like to Robert Hooke when he observed it through a microscope? \_\_\_\_\_

\_\_\_\_\_

4. What did the German botanist Matthias Schleiden conclude? \_\_\_\_\_

\_\_\_\_\_

5. What did the German biologist Theodor Schwann conclude? \_\_\_\_\_

\_\_\_\_\_

6. How did Rudolph Virchow summarize his years of work? \_\_\_\_\_

\_\_\_\_\_

7. What are the three concepts that make up the cell theory?

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

#### Exploring the Cell (pages 170–172)

8. Why are electron microscopes capable of revealing details much smaller than those seen through light microscopes? \_\_\_\_\_

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**Prokaryotes and Eukaryotes** (pages 172–173)

9. Circle the letter of each sentence that is true about prokaryotes.
- a. They grow and reproduce.
  - b. Many are large, multicellular organisms.
  - c. They are more complex than cells of eukaryotes.
  - d. They have cell membranes and cytoplasm.
10. Are all eukaryotes large, multicellular organisms? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
11. Complete the table about the two categories of cells.

**TWO CATEGORIES OF CELLS**

Category	Definition	Examples
	Organisms whose cells lack nuclei	
	Organisms whose cells contain nuclei	