

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? _____

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? _____

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	