

Study Guide Cell Discovery and Theory

In your textbook, read about the history of the cell theory and microscope technology.

Respond to each statement.

1. **Name** the invention that helped scientists discover the cell.

2. **Tell** why Hooke called the structures he saw in the cork *cellulae* (“small rooms”).

3. **Name** the type of microscope that uses a series of magnifying lenses.

Write the term or phrase that best completes each statement. Use these choices:

cell theory cells daughter cells genetic material organisms

The (4) _____ includes the following three principles:

1. All living organisms are composed of one or more (5) _____ .
2. Cells are the basic unit of structure and organization of all living (6) _____ .
3. Cells arise only from previously existing cells, with cells passing copies of their (7) _____ on to their (8) _____ .

In your textbook, read about basic cell types.

Complete the table by checking the correct column(s) for each description.

Description	Prokaryotes	Eukaryotes
9. Organisms that break down molecules to generate energy		
10. Organisms that have cells lacking internal membrane-bound organelles		
11. Organisms whose cells do not have nuclei		
12. Organisms that are either unicellular or multicellular		
13. Organisms that are generally unicellular		
14. Organisms that have cells containing organelles		
15. Organisms that have plasma membranes		