

Living Things ▪ *Guided Reading and Study*

Looking Inside Cells

This section describes cell structure and function in plant cells and animal cells, and explains how specialized cells are organized.

Use Target Reading Skills

Before you read, preview the figure Plant and Animal Cells in your textbook. Then write two questions that you have about the illustrations in a graphic organizer like the one below. As you read, answer your questions.

Plant and Animal Cells

Q. How are animal cells different from plant cells?
A.
Q.
A.

Introduction

1. What are organelles?

Enter the Cell

2. The rigid layer of nonliving material that surrounds plant cells is the _____.

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3. Circle the letter of each sentence that is true about the cell wall.
 - a. Cell walls are made of cellulose.
 - b. Plant cells have cell walls.
 - c. Animal cells have cell walls.
 - d. Water and oxygen cannot pass through the cell wall.
4. What does the cell wall do?
5. Where is the cell membrane located in cells that have cell walls?
6. Where is the cell membrane located in cells that do NOT have cell walls?
7. Is the following sentence true or false? The main function of the cell membrane is to control what comes into and out of a cell.

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Sail On to the Nucleus

8. Circle the letter of each sentence that is true about the nucleus.
 - a. Materials pass in and out of the nucleus through pores in the nuclear envelope.
 - b. Chromatin contains the instructions that direct the functions of a cell.
 - c. The nucleolus is part of the nuclear envelope.
 - d. Ribosomes are made in the nucleolus.

Organelles in the Cytoplasm

9. Circle the letter of the part of the cell that is the region between the cell membrane and the nucleus.
 - a. organelle
 - b. nucleus
 - c. cytoplasm
 - d. chromatin

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10. In the table below, describe the function of each organelle in the cytoplasm.

Organelles in Cytoplasm	
Organelle	Function
Mitochondria	
Endoplasmic reticulum	
Ribosomes	
Golgi bodies	
Chloroplasts	
Vacuoles	
Lysosomes	

Specialized Cells

11. In a many-celled organism, cells are specialized to perform different _____.
12. Circle the letter of each sentence that is true about specialized cells.
- In many-celled organisms, cells are often organized into tissues.
 - An organ system is made up of similar tissues.
 - A tissue is a group of cells that work together to perform a specific function.
 - A group of organs that work together to perform a major function is called an organ system.