

**Review and Reinforce**

# Discovering Cells

## Understanding Main Ideas

If the statement is true, write *true*. If the statement is false, change the underlined word or words to make the statement true.

1. \_\_\_\_\_ Cells are the basic unit of structure and function in living things.
2. \_\_\_\_\_ Telescopes are instruments that can magnify very small objects.
3. \_\_\_\_\_ Cells were first observed by Robert Hooke.
4. \_\_\_\_\_ Light microscopes use beams of electrons to produce magnified images.
5. \_\_\_\_\_ Resolution is the condition when objects appear larger than they really are.
6. \_\_\_\_\_ Magnification is the ability to distinguish details on an object.
7. \_\_\_\_\_ If a compound microscope has a 10x lens in its eyepiece and a 20x lens in its nosepiece, its total magnification is 100x.

## Building Vocabulary

Write the definition of each of these terms in the spaces provided.

8. cell  
\_\_\_\_\_
9. microscope  
\_\_\_\_\_
10. cell theory  
\_\_\_\_\_

Place the outside corner, the corner away from the dotted line, in the corner of your copy machine to copy onto letter-size paper.

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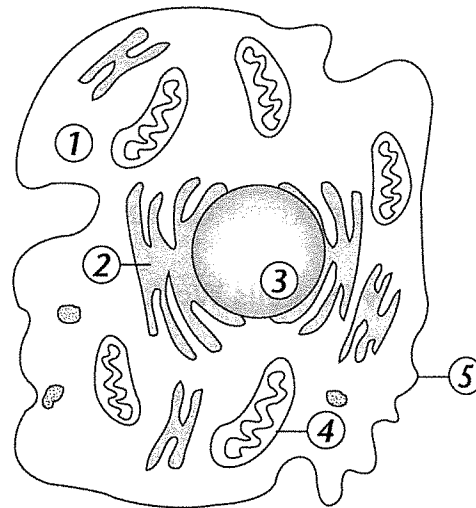
# Looking Inside Cells

## Understanding Main Ideas

Identify each of the cell structures in the figure.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

*Simplified Animal Cell*



## Building Vocabulary

On a separate sheet of paper, write a definition for each of these terms.

6. tissue
7. chloroplast
8. ribosome
9. nucleus
10. mitochondria
11. organ
12. multicellular

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# Chemical Compounds in Cells

## Understanding Main Ideas

Answer the following questions in the spaces provided.

1. Describe one way that cells use water.

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2. Explain why living things store energy in lipids instead of in carbohydrates.

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3. Name two ways that living things use proteins.

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Name the elements found in each of these compounds.

4. nucleic acid \_\_\_\_\_

5. lipid \_\_\_\_\_

6. protein \_\_\_\_\_

7. carbohydrate \_\_\_\_\_

## Building Vocabulary

On a separate sheet of paper, write a definition for each of these terms.

- 8. element
- 9. compound
- 10. enzyme

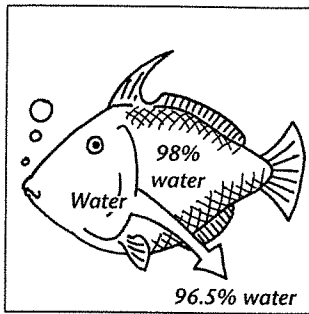
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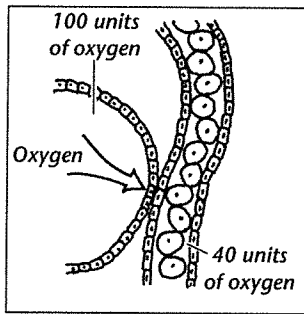
# The Cell in Its Environment

**Understanding Main Ideas**

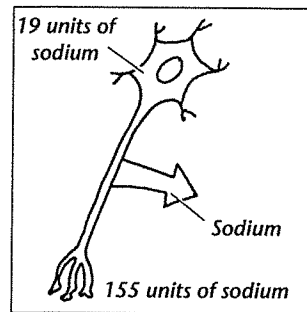
Fill in the blank to identify the process illustrated in each of the following figures.



*Water moves out of the cells of a saltwater fish and into the ocean.*



*Oxygen moves from the lungs into the bloodstream.*



*Sodium is pumped out of a nerve cell.*

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

Answer the following questions on a separate piece of paper.

4. How does active transport differ from passive transport?
5. What makes the cell membrane selectively permeable?

**Building Vocabulary**

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>6. ___ osmosis</li> <li>7. ___ exocytosis</li> <li>8. ___ diffusion</li> <li>9. ___ endocytosis</li> </ol> | <ol style="list-style-type: none"> <li>a. the process by which large molecules are engulfed by a cell</li> <li>b. the process by which molecules tend to move from an area of higher concentration to an area of lower concentration</li> <li>c. the process by which large molecules are expelled from a cell</li> <li>d. the process by which water moves across a selectively permeable membrane</li> </ol> |
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