

CHAPTER

5

DIRECTED READING WORKSHEET

The Cell in Action

As you read Chapter 5, which begins on page 106 of your textbook, answer the following questions.

What If . . . ? (p. 106)

1. Scientists have found an enzyme that acts like a cellular fountain of youth. What can this enzyme do?

What Do You Think? (p. 107)

Answer these questions in your ScienceLog now. Then later, you'll have a chance to revise your answers based on what you've learned.

Investigate! (p. 107)

2. Yeast are fungi that eat _____ and produce the gas _____.

Section 1: Exchange with the Environment (p. 108)

3. How is a cell like a factory?

What Is Diffusion? (p. 108)

4. Look at Figure 1. Why does the line between the dye and the gelatin blur?



Chapter 5, continued

5. Particles naturally travel from areas of _____ concentration to areas of _____ concentration.
6. Osmosis is the _____ of _____ through the cell membrane.
7. The particles of food coloring in Figure 2 are too large to move through the barrier. True or False? (Circle one.)
8. How do water, salts, and sugars keep a blood cell from swelling?

9. How does a wilted plant “drink” water?

Moving Small Particles (p. 110)

10. Which of the following particles use special protein “doorways” to pass through the cell membrane? (Circle all that apply.)
- | | |
|----------------|----------|
| a. amino acids | c. water |
| b. oxygen | d. sugar |

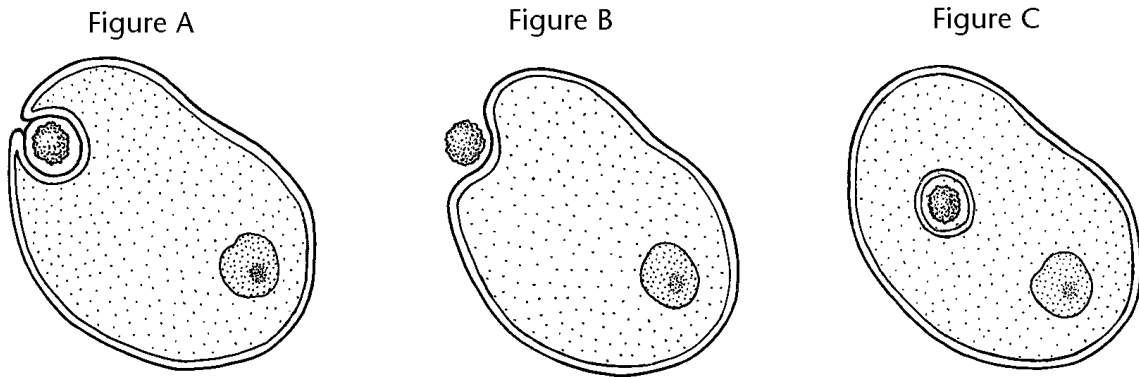
After you finish reading page 110, indicate whether each of the following statements describes active or passive transport by writing *A* for active or *P* for passive in the space provided.

11. _____ uses energy from the molecule ATP
12. _____ diffusion of particles through proteins
13. _____ the way sugar enters a cell if there is more sugar outside the cell than inside the cell
14. _____ the movement of particles from an area of low concentration to an area of high concentration
15. _____ no energy used by the cell

Chapter 5, continued

Moving Large Particles (p. 111)

Use the figures below to answer the following questions.



16. In which order would the figures demonstrate exocytosis?

17. In which order would the figures demonstrate endocytosis?

Review (p. 111)

Now that you've finished Section 1, review what you learned by answering the Review questions in your ScienceLog.

Section 2: Cell Energy (p. 112)

1. What is your body telling you when you feel hungry?

From Sun to Cell (p. 112)

2. Does your body need plants for energy? Why or why not?

