

# Chapter 8

## Cellular Transport and the Cell Cycle

### Reinforcement and Study Guide

#### Section 8.1 Cellular Transport

*In your textbook, read about osmosis: diffusion of water.*

Complete the table by checking the correct column for each statement.

Statement	Isotonic Solution	Hypotonic Solution	Hypertonic Solution
1. Causes a cell to swell			
2. Doesn't change the shape of a cell			
3. Causes osmosis			
4. Causes a cell to shrink			

*In your textbook, read about passive transport and active transport.*

For each item in Column A, write the letter of the matching item in Column B.

#### Column A

- \_\_\_\_\_ 5. Transport protein that provides a tubelike opening in the plasma membrane through which particles can diffuse
- \_\_\_\_\_ 6. Is used during active transport but not passive transport
- \_\_\_\_\_ 7. Process by which a cell takes in material by forming a vacuole around it
- \_\_\_\_\_ 8. Particle movement from an area of higher concentration to an area of lower concentration
- \_\_\_\_\_ 9. Process by which a cell expels wastes from a vacuole
- \_\_\_\_\_ 10. A form of passive transport that uses transport proteins
- \_\_\_\_\_ 11. Particle movement from an area of lower concentration to an area of higher concentration
- \_\_\_\_\_ 12. Transport protein that changes shape when a particle binds with it

#### Column B

- a. energy
- b. facilitated diffusion
- c. endocytosis
- d. passive transport
- e. active transport
- f. exocytosis
- g. carrier protein
- h. channel protein

## Review the Key Terms

contractile vacuole (kun TRAK tile • VAK yew ohl)

hypertonic solution (hi pur TAH nihk)

turgor pressure (TUR gur)

isotonic solution (i suh TAH nihk)

plasmolysis (plaz MAH luh sus)

exocytosis (eks oh si TOH sus)

active transport

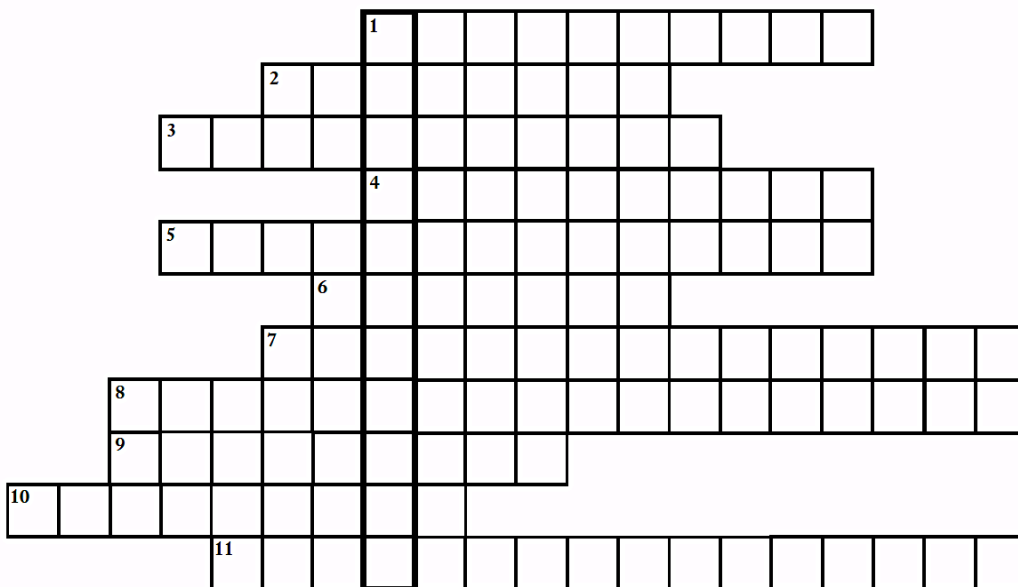
diffusion

hypotonic solution

osmosis

passive transport

Some of the Chapter 9 key terms are listed above. Review the definitions of these words. Then use the clues to complete the puzzle. The letters in the dark boxes will make up a word that tells you what you are studying in Chapter 9.



1. solution in which the concentration of dissolved substances is higher outside the cell than inside the cell \_\_\_\_\_
2. solution in which the concentration of dissolved substances is the same outside and inside the cell \_\_\_\_\_
3. results when a plant cell loses water and causes a plant to wilt \_\_\_\_\_
4. process that cells use to get rid of waste materials \_\_\_\_\_
5. pressure created by water inside a cell \_\_\_\_\_
6. passing of water molecules through a membrane \_\_\_\_\_
7. process in which a cell must use energy to transport materials across a membrane \_\_\_\_\_
8. organelle that squeezes extra water from a cell \_\_\_\_\_
9. movement of particles from an area of higher concentration to an area of lower concentration \_\_\_\_\_
10. solution in which the concentration of dissolved substances is higher inside the cell than outside the cell \_\_\_\_\_
11. movement across a membrane by diffusion \_\_\_\_\_