

2-7 How do materials move in and out of cells?

Lesson Review

Write *true* if the statement is true. If the statement is false, change the underlined term to make the statement true.

- _____ 1. A cell is the smallest part of a substance that is still that substance.
- _____ 2. The movement of molecules from more crowded places to less crowded places is called osmosis.
- _____ 3. Movement of materials through a membrane by using energy is called passive transport.
- _____ 4. Most molecules move from places where they are crowded to places where they are less crowded.
- _____ 5. A special molecule called a transport protein uses energy to push molecules through the membrane of a cell.
- _____ 6. The movement of water through a membrane is called diffusion.
- _____ 7. The cell membrane has tiny holes in it that allow materials to pass into and out of the cell.

Skill Challenge

Skills: diagramming, using models, applying concepts

Each symbol on the diagram below represents either a substance needed or not needed by the cell. These substances pass into or out of the cell by diffusion, using passive transport. Substances moving into the cell are needed by the cell, and substances moving out of the cell are not needed by the cell.

Study the diagram below. Draw arrows in the diagram to show whether each substance will move into or out of the cell. Then, answer the questions that follow.

1. Is substance X needed or not needed by the cell? Explain.

2. Would substance Y move into or out of the cell? Explain.

