

The Plasma Membrane

Reinforcement and Study Guide

In your textbook, read about maintaining a balance.

Use each of the terms below just once to complete the passage.

glucose

plasma membrane

homeostasis

organism

balance

selective permeability

Living cells maintain a **(1)** _____ by controlling materials that enter and leave. Without this ability, the cell cannot maintain **(2)** _____ and will die. The cell must regulate internal concentrations of water, **(3)** _____, and other nutrients and must eliminate waste products. Homeostasis in a cell is maintained by the **(4)** _____, which allows only certain particles to pass through and keeps other particles out. This property of a membrane is known as **(5)** _____. It allows different cells to carry on different activities within the same **(6)** _____.

In your textbook, read about the structure of the plasma membrane.

For each statement below, write true or false.

- _____ **7.** The structure and properties of the cell wall allow it to be selective and maintain homeostasis.
- _____ **8.** The plasma membrane is a bilayer of lipid molecules with protein molecules embedded in it.
- _____ **9.** A phospholipid molecule has a nonpolar, water-insoluble head attached to a long polar, soluble tail.
- _____ **10.** The fluid mosaic model describes the plasma membrane as a structure that is liquid and very rigid.
- _____ **11.** Eukaryotic plasma membranes can contain cholesterol, which tends to make the membrane more stable.
- _____ **12.** Transport proteins span the cell membrane, allowing the selectively permeable membrane to regulate which molecules enter and leave a cell.
- _____ **13.** Proteins at the inner surface of the plasma membrane attach the membrane to the cell's support structure, making the cell rigid.