

Name \_\_\_\_\_

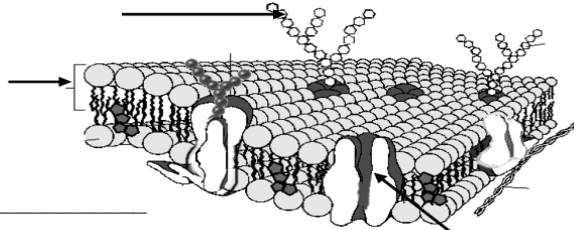
### Chapter 7-3 Cell Boundaries

1. Name two functions of the cell membrane:

2. The cell membrane contains \_\_\_\_\_ molecules that are embedded in the lipid bilayer.

3. Why do scientists call the membrane a "mosaic"? \_\_\_\_\_

4. On the image, label the
- a. lipid bilayer
  - b. protein channel
  - c. carbohydrate chains



5. What three types of organisms have cell walls? \_\_\_\_\_

6. What is the main function of the cell wall? \_\_\_\_\_

7. What are plant cell walls composed of? \_\_\_\_\_

8. One of the most important functions of the cell membrane is to \_\_\_\_\_ the movement of dissolved \_\_\_\_\_ from the liquid on one side of the membrane to the liquid on the other.

9. A solution is a \_\_\_\_\_ of two or more substances.

10. Define diffusion: \_\_\_\_\_

11. When the particles are the same throughout, the system has reached \_\_\_\_\_

12. Diffusion depends on \_\_\_\_\_ particle movements, therefore it [ does | does not ] (circle) require energy.

### OSMOSIS

13. If a substance is able to diffuse across a membrane, the membrane is said to be \_\_\_\_\_

14. Define osmosis: \_\_\_\_\_

15. Isotonic means \_\_\_\_\_

Hypertonic means \_\_\_\_\_

Hypotonic means \_\_\_\_\_

16. Because cells are hypertonic in relation to fresh water, \_\_\_\_\_ produces a net movement of water into the cell. If that happens, the cell will become \_\_\_\_\_ and can even burst.

17. In plant and bacteria cells, what keeps them from bursting due to osmotic pressure? \_\_\_\_\_

### FACILITATED DIFFUSION

18. Cell membranes have \_\_\_\_\_ that make it easy for certain molecules to cross the membrane.

19. When proteins help molecules move across the membrane, it is called \_\_\_\_\_