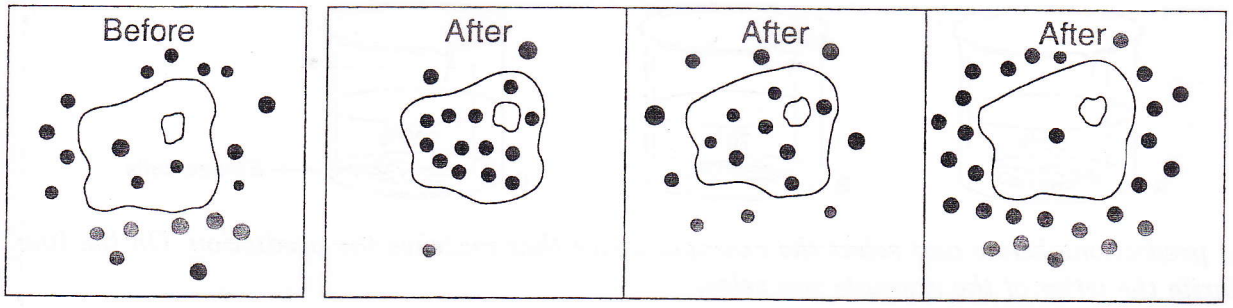
Name_____Hour_____

Special Cell Processes

1. The first picture below, labeled ***Before***, shows a cell surrounded by oxygen molecules before diffusion takes place. Each of the small black dots represents an oxygen molecule. Which of the three pictures labeled ***After*** shows where these oxygen molecules would be found after diffusion takes place.



2. What is diffusion? (pg. 184) _____

_____

3. How do molecules get through the cell membrane? (pg. 185) _____

_____

4. What is osmosis? (pg. 185) _____

5. Which way would the water molecules move in the following situations? (In or Out)

   a. cucumber slice is placed in salt water _____

   b. salt is pouted on a snail _____

   c. vegetables are sprinkled with water _____

   d. potato slice is placed in pure water _____

6. Circle the letter in front of the sentence that best explains the process of osmosis.

   a. Osmosis is the movement of water into or out of a cell from where it is in large amounts to where it is in small amounts.

   b. Osmosis is the movement of water into or out of a cell from where it is in small amounts to where it is in large amounts.

   c. Osmosis is the movement of salt into or out of a cell from where it is in large amounts to where is in small amounts.

RETEACHING

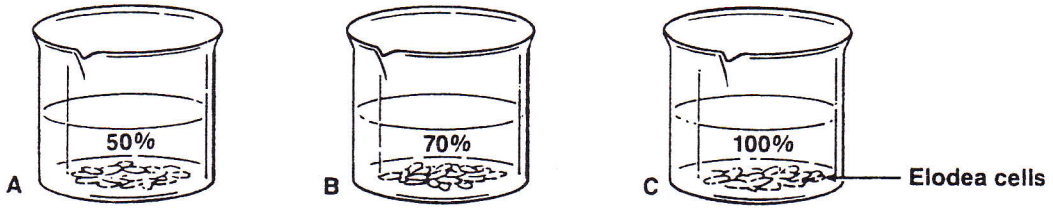
Name _____ Date _____ Class _____

CELL PROCESSES

The cytoplasm of *Elodea* cells is composed of about 70 percent water molecules and 30 percent other kinds of molecules.

Read the three examples given below.

A. *Elodea* cells are put into a liquid that is 50 percent water.
B. *Elodea* cells are put into a liquid that is 70 percent water.
C. *Elodea* cells are put into a liquid that is 100 percent water.



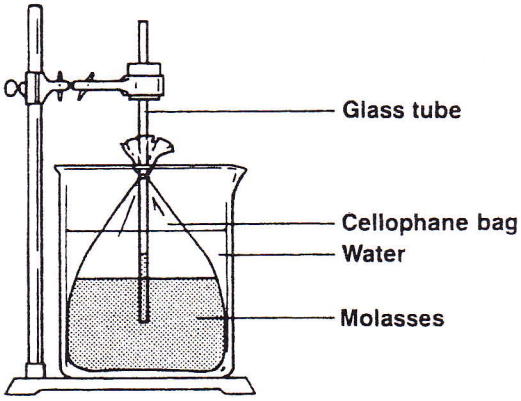
Study the predictions below and select the example above that matches the prediction. On the line to the left, write the letter of the example you select.

_____ **1.** The *Elodea* cells in the liquid will shrink.

_____ **2.** The *Elodea* cells in the liquid will swell.

_____ **3.** The *Elodea* cells will not change in size.

The diagram to the right shows a cellophane bag containing molasses. The bag is in a beaker of water. An open glass tube extends from the bag. The molasses comes up a short distance in the tube.



Use the diagram to answer the questions below.

_____ **1.** Movement of water molecules across the membrane is the result of
(a) osmosis. (b) breathing. (c) the glass tube. (d) air pressure.

_____ **2.** After 24 hours, the size of the cellophane bag will probably be
(a) smaller. (b) larger. (c) the same.

_____ **3.** After 24 hours, the beaker will contain
(a) water only. (c) both water and molasses.
(b) molasses only. (d) neither water nor molasses.

_____ **4.** After 24 hours, the cellophane bag will contain
(a) water only. (c) both water and molasses.
(b) molasses only. (d) neither water nor molasses.

_____ **5.** After 24 hours, the level of liquid in the glass tube
(a) will be lower. (b) will be higher. (c) will be the same.

Section 7-3 Vocabulary Review

Use the terms below to complete the sentences.

active transport **cell theory** **exocytosis** **middle lamella** **osmosis**
passive transport **phagocytosis** **pinocytosis** **plasma membrane**
selectively permeable membrane **transport protein** **vesicle**

1. The concept that forms the basis of modern biology is called the _____.
2. In plants, between the two primary cell walls of adjacent cells there is an area called the _____.
3. _____is the diffusion of water inot and out of cells across a(n) _____.
4. Solid chunks of material are taken in by the plasma membrane through a process called _____.
5. The _____ is the outer boundary of a cell that encloses its contents.
6. A small sac formed by a membrane is known as a(n) _____.
7. In facilitated diffusion, _____ are used to aid the passage of particles across the plasma membrane.
8. Some cells rid themselves of waste or secrete substances needed elsewhere through a process called _____.
9. The name of the process by which liquid droplets are taken in by the plasma membrane is _____.
10. Water, lipids, and lipid-soluble substances are moved across membranes by the process of _____.
11. The movement of particles across a plasma membrane involving the use of cell energy is called _____.