

Name: \_\_\_\_\_

### Unit 4 – Homeostasis and Transport

1. In diffusion, molecules move from an area of \_\_\_\_\_ concentration to an area of \_\_\_\_\_ concentration.
2. **True / False:** Molecules no longer move across the cell membrane once equilibrium is reached.
3. In a hypotonic solution, there is a \_\_\_\_\_ solute / \_\_\_\_\_ water concentration OUTSIDE the cell. Water moves \_\_\_\_\_ the cell.
4. In a hypertonic solution, there is \_\_\_\_\_ solute / \_\_\_\_\_ water concentration OUTSIDE the cell. Water moves \_\_\_\_\_ the cell.
5. In an isotonic solution, there is an \_\_\_\_\_ solute/water concentration outside AND inside the cell. Water moves \_\_\_\_\_ the cell.
6. Plant cells are healthiest in what type of solution?      **Hypotonic**      **isotonic**      **hypertonic**
7. Animal cells are healthiest in what type of solution?      **Hypotonic**      **isotonic**      **hypertonic**
8. Facilitated diffusion is requires a \_\_\_\_\_ to move large or charged particles across the cell membrane.
9. What type of molecule is the “facilitator” in facilitated diffusion? \_\_\_\_\_
10. The type of transport that goes against the concentration gradient is \_\_\_\_\_
11. What is required for active transport to occur? \_\_\_\_\_
12. An example of an active transport protein pump in humans is the \_\_\_\_\_

Draw and label a plant and animal cell in each type of solution. Star the healthiest.

Cell type	Hypotonic	Hypertonic	Isotonic
Animal			
Plant			