

TOPIC 3: Cellular Transport

Please use the podcast from Council Rock High School for TOPIC 3 to guide you. The podcast can be found at <http://www.crsd.org/Page/31715>

1. What 4 types of organisms have a cell wall?
 - a.
 - b.
 - c.
 - d.
2. Diffusion moves molecules from a _____ concentration to a _____ concentration.
3. True or false: after equilibrium is reached, molecules do not move anymore.
4. In a **hypotonic** solution, there is a low solute / high water concentration outside a cell. Water moves _____ the cell.
5. Circle one: Who does better in a hypotonic solution? **PLANTS** **ANIMALS**
6. In a **hypertonic** solution, there is a high solute / low water concentration outside a cell. Water moves _____ the cell.
7. In an **isotonic** solution, there is an _____ solute / water concentration outside and inside a cell.
8. Circle one: Who does better in an isotonic solution? **PLANTS** **ANIMALS**
9. Facilitated diffusion needs the help of a _____ to move large/charged molecules across a cell membrane.
10. What type of molecule is the “facilitator” in facilitated diffusion? _____
11. The only type of cellular transport to go AGAINST the concentration gradient is called _____.
12. What important energy molecules allows active transport to happen? _____
13. What happens to the shape of the protein when the ATP binds to it?

14. What happens to the shape of the protein when the potassium ions bind to it?

15. In the $\text{Na}^+ \text{K}^+$ pump, _____ ions of sodium go through first. Then, _____ ions of potassium go through.