

Name: _____

Date: _____

Period: _____

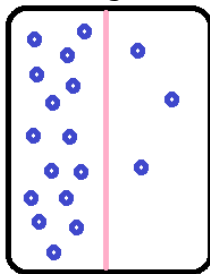
Evidence 3: Cell Transport

Option 2: Mini Lab

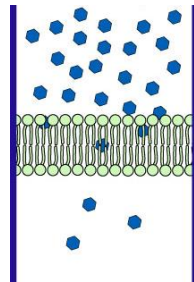
You may work with a partner or on your own. These activities can be completed in any order. You are responsible for knowing all the bolded terms and the key concepts of these activities.

Station One: Diffusion – read the instructions and answer the following questions.

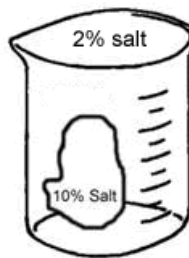
1. Define diffusion –
2. Define concentration gradient –
3. Explain how the food coloring activity demonstrated diffusion.
4. Why can you smell what is INSIDE the balloon?
5. If the odor passes through the balloon, what part of a cell does the balloon skin represent?
6. Can anything pass through the balloon skin? Why or why not?
7. Can anything pass through a cell membrane? Why or why not?
8. Below are several images. Draw an arrow showing the direction the particles will move if diffusion is occurring.



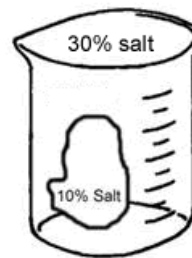
A



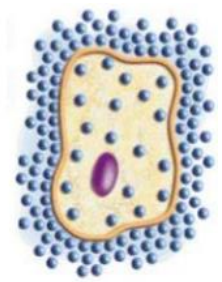
B



C

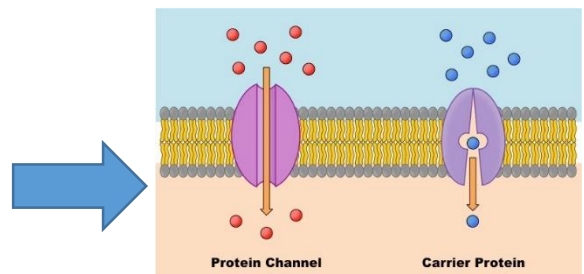


D



E

9. At what point will diffusion stop?
10. Label the concentration gradient on images A, B and E.
11. Is diffusion active or passive transport? Explain.
12. Sometimes the molecules diffusing are too big to pass through the membrane so they are helped by a protein. What kind of diffusion is this?



Station Two: Active Transport – watch the video and read the passages to answer the following questions.

1. In which direction do molecules move during active transport (**high to low** or **low to high**)?
2. Does active transport require energy? _____ What molecule is energy? _____
3. In active transport molecules are moving _____ the concentration gradient.
4. Endocytosis is moving molecules (**into** or **out of**) a cell.
5. Exocytosis is moving molecules (**into** or **out of**) a cell.
6. What is embedded in the cell membrane that needs ATP to move the molecules across the membrane?

Station Three: Osmosis

1. What is **Osmosis**?
2. Does the movement of water across a membrane require energy? _____ Why or why not?
3. Would it be considered passive or active transport? _____ Why?

The raisins at your station are in three different states.

4. Which one is in equilibrium?
5. Which one will allow water to move into the cell through osmosis?
6. Which one will lose water through osmosis?