

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

Period: \_\_\_\_\_

Date: \_\_\_\_\_

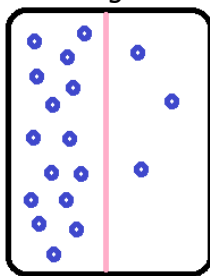
## Evidence 3: Cell Transport Regular

## Option 3 – Mini Lab

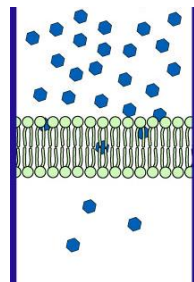
You may work with a partner or on your own. These activities can be completed in any order. You are responsible for knowing all the bolded terms and the key concepts of these activities.

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

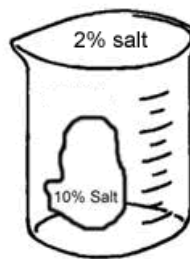
1. Define diffusion –
2. Define concentration gradient –
3. Explain how the food coloring activity demonstrated diffusion.
4. Why can you smell what is INSIDE the balloon?
5. If the odor passes through the balloon, what part of a cell does the balloon skin represent?
6. Can anything pass through the 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.



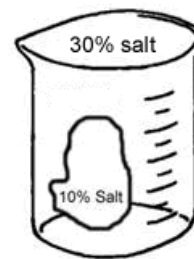
A



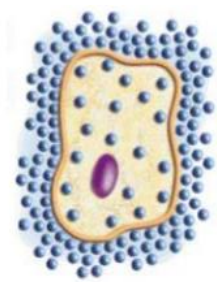
B



C

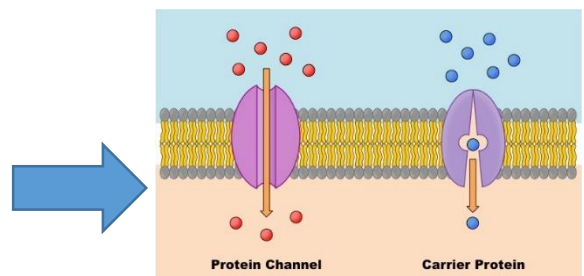


D



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?