

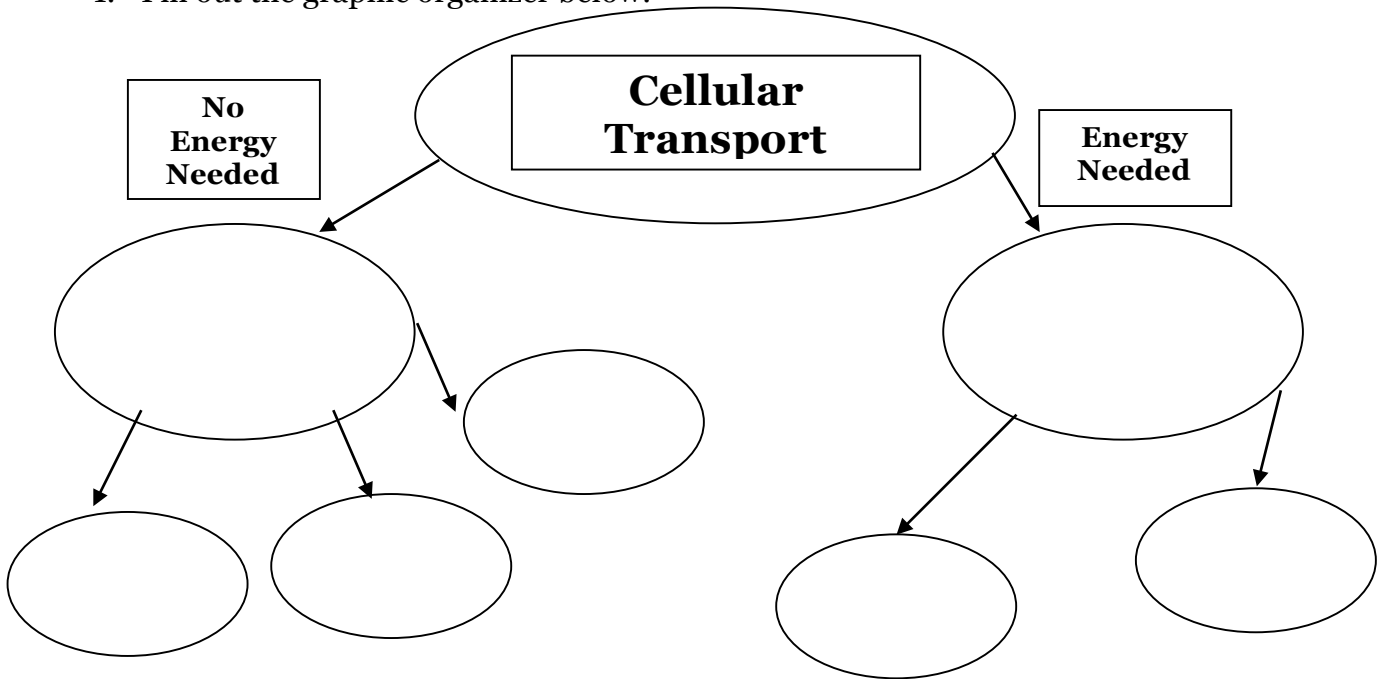
Name: _____

Period: _____

Date: _____

Diffusion, Osmosis, & Cell Transport Worksheet

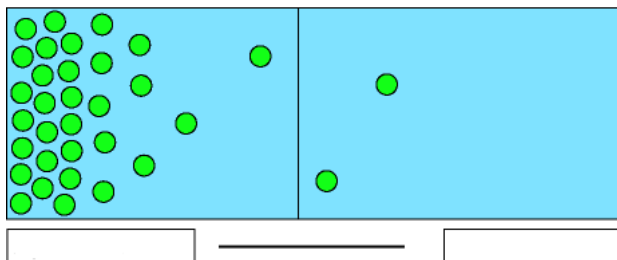
1. Fill out the graphic organizer below:



On the diagram below:

- Write high concentration on the side that has a high concentration of solute and low concentration on the side that has a low concentration of solute.
- Complete the line with an arrow to show which way the solute will move.

Diffusion



● solute

- Define Diffusion
- Define Osmosis
- How is the cell membrane selectively permeable?

7. Describe what the cell membrane looks like.

8. **Y or N:** Is water always able to diffuse through a cell's selective permeable membrane?

9. **Y or N:** Are molecules (particles) always able to diffuse through a cell's selective permeable membrane?

10. What is the determining factor that will or will not allow molecules (particle) to diffuse?

11. Consider the solution in the drawing below, with the two sides divided by a pierced membrane. In the blank drawing on the right, show how the solution would look once it has reached equilibrium.



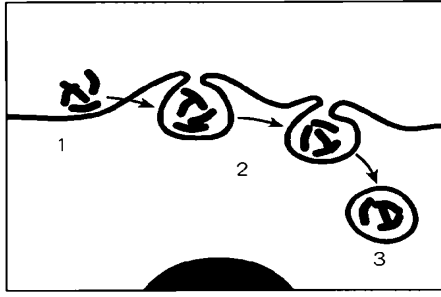
12. What are three examples of molecules that a cell would want to be able to move effectively across its cell membrane? (Be more specific than “food.”)
 - a.
 - b.
 - c.

13. What general type of macromolecule is a phospholipid (*this is what the cell membrane is made of*)? What is an example of this general type of molecule that you could find at home?

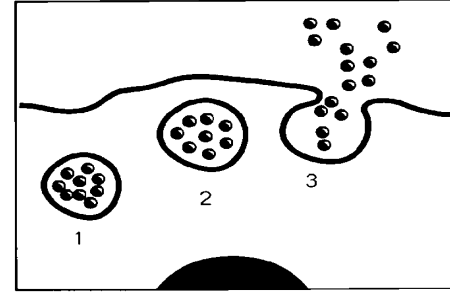
14. Hands on Question: Go into your kitchen and pour a *small* amount of vegetable oil in your hands. Now wash it off in the sink using **ONLY** water (*no soap!*). What happens? (Ok...now you can use soap.) What can you say about the interactions between oil and water? What general type of molecule is vegetable oil?

15. What process is shown in Figure A below? _____

16. What process is shown in Figure B below? _____

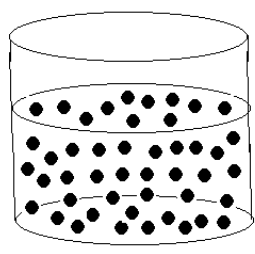


A

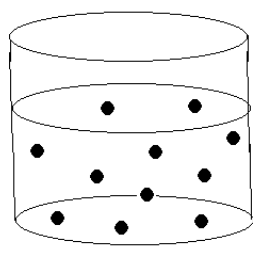


B

17. Examine the diagrams below. The black dots represent solute molecules dissolved in water



A



B

In which beaker is the concentration of solute the greater?

A or B

18. What will happen to a houseplant if you water it with salt water? **Why?**

19. Look at these pictures of a cell surrounded by oxygen molecules. The small dots are oxygen molecules. Circle the picture that correctly shows where oxygen molecules should appear **after diffusion has taken place.**

