

Name \_\_\_\_\_

Date \_\_\_\_\_

### Cell Membrane and Transport Practice

**Directions.** Complete each question to the best of your ability. Use your science inquiry log, notes and textbook to help you.

1. Write the letter of the definition next to the correct vocabulary word.

- |                             |   |
|-----------------------------|---|
| _____ lipid bilayer         | A. protein channel in the cell membrane that allows water to pass through                               |
| _____ selectively permeable | B. process through which molecules pass through special protein channels in the cell membrane           |
| _____ passive transport     | C. double-layered sheet that gives the cell membrane a strong, flexible barrier                         |
| _____ diffusion             | D. type of cellular transport requiring cellular energy   |
| _____ facilitated diffusion | E. some substances can pass through and others cannot   |
| _____ osmosis               | F. type of cellular transport that does not use cellular energy   |
| _____ aquaporin             | G. facilitated diffusion of water through a selectively permeable membrane                              |
| _____ active transport      | H. process by which particles move randomly from high to low concentration until equilibrium is reached |

2. Explain the function of the cell membrane in the cell.

3. Explain why it is important for cell membranes to be selectively permeable. Why is this necessary for the cell to survive?

4. Complete the following comparison chart for the different types of cellular transport. Place an "X" if the characteristic is true for each type of cellular transport.

Type of cellular transport	Does <u>not</u> use cellular energy	Does use cellular energy	Occurs across the cell membrane	Involves proteins in the cell membrane	Involves molecules and/or ions	Based on the random movement of particles
Diffusion						
Facilitated diffusion						
Active transport						