

**Passive Transport and Cell Membrane Worksheet**

Name \_\_\_\_\_  
Date \_\_\_\_\_ Period \_\_\_\_\_

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1. When molecules diffuse in/out of a cell is the cell doing work? Explain.

2. Describe the state of equilibrium.

3. True or False? At equilibrium the random movement of molecules stops.

Explain using the term "net movement".

4. What are the solutes in cells?

What is the solvent in cells?

5. Identify the net movement of water in each of the following conditions. Give a brief explanation for each answer.

a) When the external solution has a lower concentration of solutes compared to the cytoplasm (cytosol).

b) When the external solution has a higher concentration of solutes compared to the cytoplasm.

c) When the concentration of solutes outside the cell is equal to the concentration inside the cell.

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6. Phospholipids are the major components of the cell membrane. Describe the structure of a phospholipid using the following terms: fatty acids, glycerol, hydrophilic, hydrophobic.