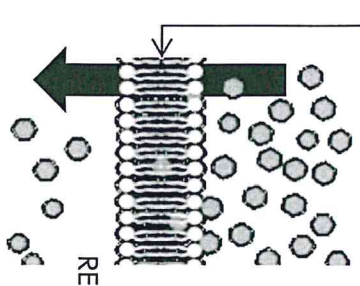


Name: \_\_\_\_\_  
Date: \_\_\_\_\_

# TRANSPORT ACROSS THE CELL MEMBRANE

Period: \_\_\_\_\_  
Assignment #: \_\_\_\_\_

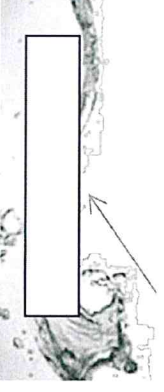


Occurs \_\_\_\_\_ the concentration gradient (high → low)

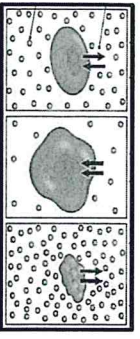
REQUIRES

for the transport of water

for the transport of glucose



water moves until it reaches



**DIRECTING**

Can you match the terms at the bottom to their correct spot in this flow chart?



Occurs \_\_\_\_\_ the concentration gradient (low → high)

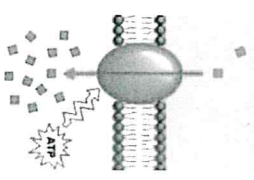
REQUIRES

for small ions

for bulk transport



example

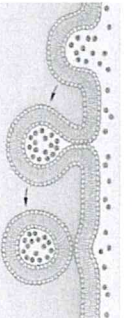


into the cell

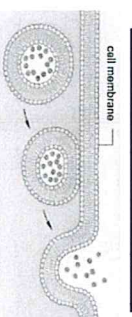
out of the cell



example



example



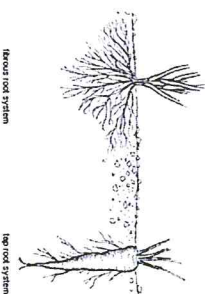
ATP energy	simple diffusion	active transport	osmosis	phospholipid bilayer
exocytosis	facilitated diffusion	passive transport	solute	amoeba eating
down	protein channel	hormone export	no energy	equilibrium
against	Na <sup>+</sup> /K <sup>+</sup> pump	protein pump	endocytosis	

# OSMOSIS

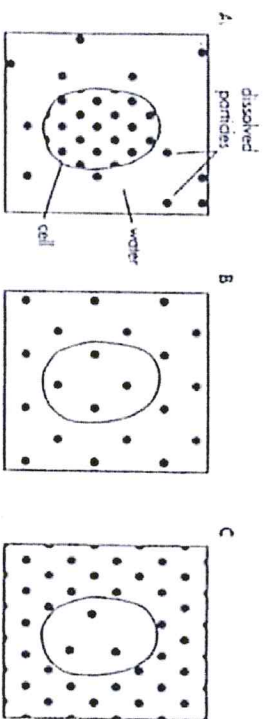
1. Why wouldn't bacteria be able to survive on salted fish? Explain using the concept of osmosis.



3. The roots of a plant have cells that absorb water from the soil. There is a high concentration of minerals inside the root cells compared to the minerals in the soil.  
 a. Explain why water moves from the soil into the root hair cell.



2. The cells in the beakers shown below are permeable to water only. Indicate the **tonicity** of each solution (isotonic, hypertonic, or hypotonic) AND indicate the **direction of water movement** (into the cell, out of the cell, or no net movement of water). (use terms in box below)



Tonicity of Solution:

Direction of Water Movement:

Isotonic	Hypotonic	Hypertonic
Into the cell	Out of the cell	No net water movement

b. Complete each sentence below. (use terms in box below)

1. The soil is  compared to the root cells.

2. The root cells are  compared to the soil.

Isotonic	Hypotonic	Hypertonic
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4. Soft drinks may contain various concentrations of solutes. Some soft drinks have a low solute concentration and are a source of water for your body's cells. Others have a high solute concentration and can dehydrate your cells. Which of these drinks should be marketed as "thirst quenchers"? Explain your answer in terms of water concentration and water movement.

