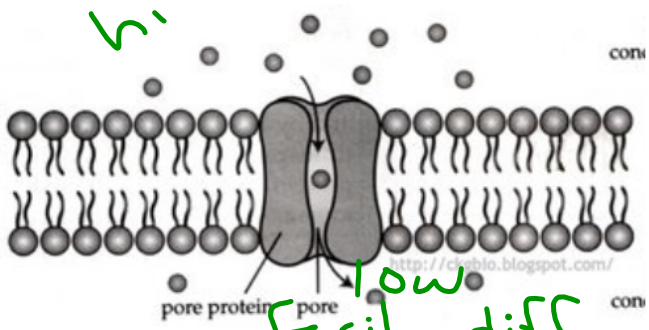
PART H -

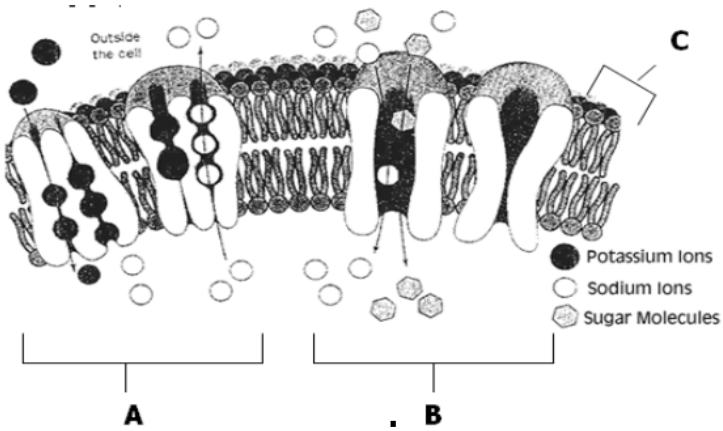


hi low facil. diff

1. The process represented in the diagram above is? facilitated
2. Give evidence on why you picked the process you did in question #1.

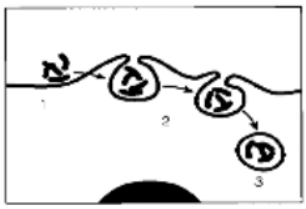
3. Is it passive or active transport? _____
4. Can this process go through the protein in both directions? yes, but high to low
5. What is an example of a molecule that moves through a carrier protein? glucose & enzymes
6. The carrier protein changes its shape to allow the molecules across the membrane.
7 After the substance passes through the carrier protein, the protein assumes its original shape.
8. Does this process require energy? no

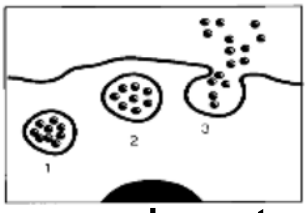
PART G



1. The picture represents both active and passive transport.
2. The _____ potassium pump removes _____ sodium ions while taking in _____ potassium ions
3. Active transport involves the use of ATP, or energy.
4. The black circles in the diagram represent K ions
5. Carrier proteins are used in passive transport and do not require the cell to expend energy. This type of diffusion is called facilitated diffusion.
6. Which area represents passive transports (A, B or C) A
7. Glucose moves [up / down] the concentration gradient. down
8. Name two molecules that move across the membrane by facilitated diffusion: glucose & enzymes and _____
10. One would expect the concentration of sodium to be [higher / lower] inside the cell.

PART G –





1. **Which process is being demonstrated in Diagram A?** endocytosis
2. **What specific name would be given to Diagram A if it were engulfing a solid?** phagocytosis
3. **What specific name would be given to Diagram A if it were engulfing a liquid?** pinocytosis
4. **Which process is being demonstrated in Diagram B?** exocytosis
5. **Does this process require energy?** yes
6. **Endocytosis is common in**

   a. nerve cells **b. plant cells** **c. unicellular organisms** **d. algae**

PART E – Complete the following tables below by checking the correct column for each example.

Example	Passive Transport	Active Transport
The random movement of ions	★	
Net movement of particles from a region of low concentration to a region of greater concentration		★
The movement of oxygen and carbon dioxide across cell membranes	★	
Energy is needed to move particles through the membrane		★
Cells in the gills of marine fish actively pump out salts		★
Water molecules move across a membrane without any energy input from the cell.	★	

	Endocytosis		Exocytosis
	Phagocytosis	Pinocytosis	
Are substances taken into the cell?	yes	yes	no
Are substances being expelled from the cell?	no	no	yes
What types of substances are taken into or expelled from the cell?	another cell	food	waste, hormone, enzyme