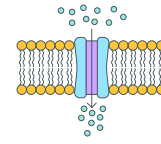




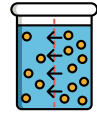
Diffusion, Osmosis and Active Transport

Fill in the blanks with the correct term:

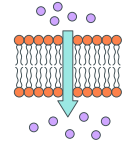
_____ - The movement of particles from an area of higher concentration to an area of lower concentration.



_____ - The movement of water molecules across a partially permeable membrane from a dilute solution to a concentrated solution.



_____ - The movement of water molecules across a partially permeable membrane from a dilute solution to a concentrated solution.



Comparison Table

Process	Requires energy?	Example in cells
Osmosis		
Diffusion		
Active Transport		

Factors Affecting Diffusion

Explain how each factor affects the rate of diffusion:

Concentration Gradient	
Temperature	
Surface Area	



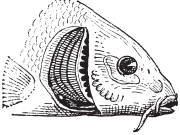




Single-celled organisms have a large surface area to volume ratio, allowing them to transport enough molecules in and out of the cell to meet their needs through diffusion alone.



Diffusion, Osmosis and Active Transport

Adaptations for Exchange Surfaces in Multicellular Organisms

Organ/Structure	Adaptation(s)
Lungs (mammals) 	
Small intestine (mammals) 	
Gills (fish) 	
Roots (plants) 	
Leaves (plants) 	

Isotonic and High Energy Drinks in Sport



Isotonic drinks are named as such because they have the same concentration of the same substances as body fluids. They help replace water and electrolytes through sweating, aiding hydration and recovery.

High energy drinks are typically more concentrated with sugars and may provide a quick source of energy rather than hydration.