

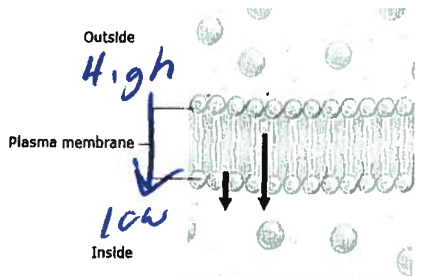
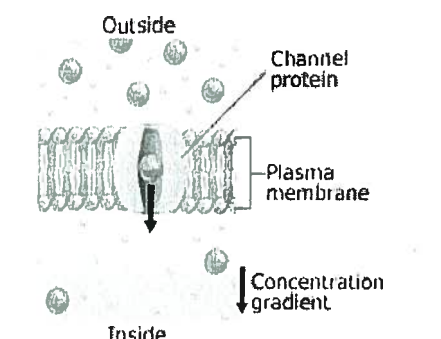
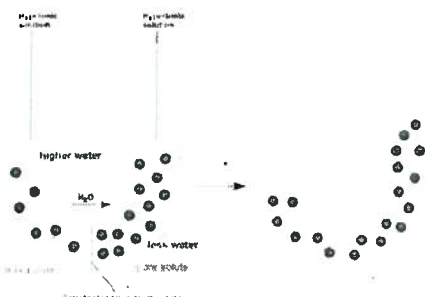
GN: Cellular Transport

There are two main ways the cell moves substances across the plasma membrane.

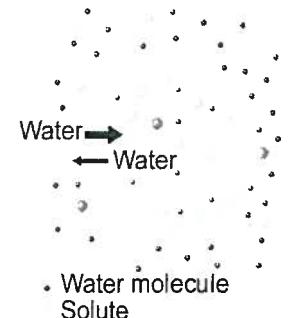
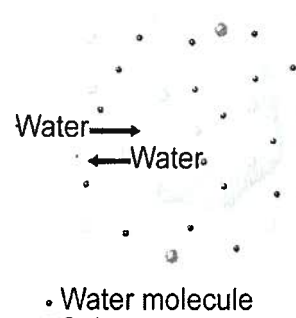
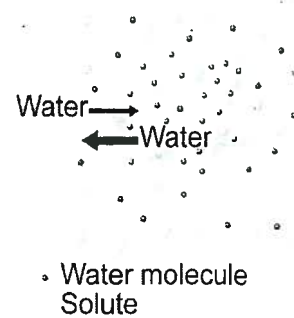
1. Passive Transport - No energy required.

Dynamic Equilibrium is the movement of particles until there is an even concentration throughout.

3 types of Passive Transport "Free"

<p>Diffusion - Movement of particle from <u>high</u> to <u>low</u> concentration.</p>  <p>3 ways diffusion is affected.</p> <ol style="list-style-type: none"> 1. <u>Temperature</u> 2. <u>Concentration</u> 3. <u>Size of the substance</u> 	<p>Facilitated Diffusion - uses <u>Channel</u> or <u>carrier</u> proteins to diffuse materials.</p> 	<p>Osmosis - the diffusion of <u>water</u> from higher to lower concentrations across a selectively permeable membrane.</p> 
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HOW WATER MOVES by OSMOSIS

<p>Hypotonic - MORE water outside the cell. Cell has more solute. Water moves <u>IN</u>.</p>  <p>Cell SWELLS</p>	<p>Isotonic - Water concentration is <u>equal</u> inside and outside the cell. Water moves in/out equally.</p>  <p>Cell STAYS the same size.</p>	<p>Hypertonic - LESS water outside the cells. Cell has less solute. Water moves <u>OUT</u>.</p>  <p>Cell SHRINKS.</p>
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exp. Egg in water

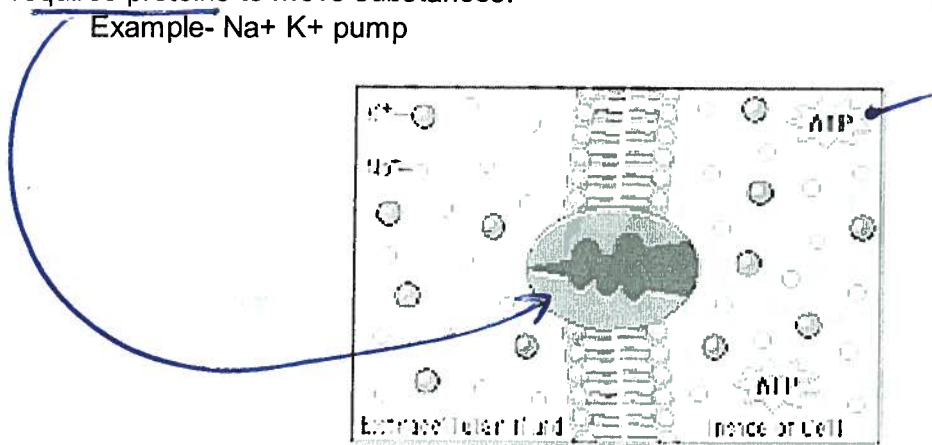
Egg in corn syrup

2. Active Transport - requires Energy (ATP) to move substances across the membrane.

- usually moves substances from low to high concentrations, against the gradient.

- requires proteins to move substances.

Example- Na⁺ K⁺ pump



Other types of Active Transport

