

2 Moving Cellular Materials

What You'll Learn:

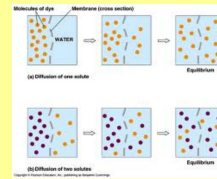
Describe the function of a selectively permeable membrane.

Explain how the process of diffusion and osmosis move cellular material.

Explain how passive and active transport differ.

Passive Transport

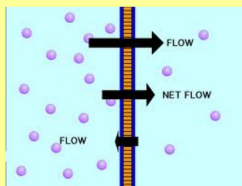
*Cell membrane is selectively permeable. It allows some things to enter or leave while keeping other things in/out.



*Passive transport requires no energy to move molecules.

Diffusion

*Random movement of molecules from area with a lot to an area where there are few.

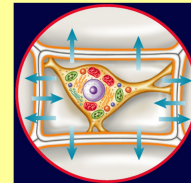


*Molecules are always trying to be balanced (equilibrium).

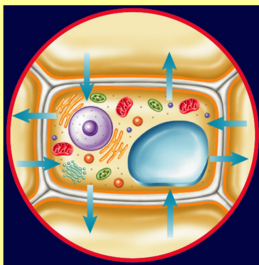
Osmosis

*Is the diffusion of water

- Losing water from a plant cell causes its cell membrane to come away from its cell wall.
- This reduces pressure against its cell wall, and a plant cell becomes limp.

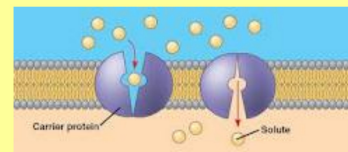


- If water around the cells would move into them, the cells would fill with water.



Facilitated Diffusion

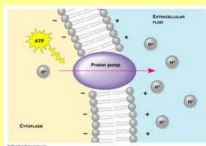
*Transport proteins are used to move substances to large either into or out of the cell.



Active Transport

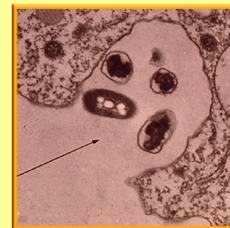
*A substance is needed inside a cell even though the amount of that substance inside is already greater than the amount outside.

*Requires energy to move molecules.



Endocytosis and Exocytosis

*Endocytosis- molecule enters the cell when the membrane surrounds it.



*Exocytosis is opposite. It is when the vesicle fuses to the cell membrane and the contents are released.

