

Diffusion - The movement of particles from an area of greater concentration to an area of lesser concentration

Concentration Gradient - The difference in concentration between a region of greater concentration and one of lesser concentration

Facilitated Diffusion - A type of transport that occurs because of specialized transport proteins in the cell membrane, each type of transport protein is specific to the substance it carries. Only works in the direction of the concentration gradient. It speeds up the movement across a membrane from a region of high concentration to an area of lower concentration.

Osmosis - The diffusion of water across a semi permeable membrane from a region of high concentration of water to a region of low concentration of water.

Osmotic Pressure - The increase in pressure resulting from the flow of water in osmosis

Passive Transport - A process by which materials move across a cell membrane without the expenditure of cellular energy. The direction of movement is determined only by the concentration gradient

Active Transport - A process in which the movement of materials across a cell membrane requires the expenditure of cellular energy against the concentration gradient

2 processes of active transport:

-A substance is moved across a membrane molecule by molecule. Each molecule must first bind to a transport protein on one side of a membrane and then be released by the same protein on the other side of the membrane

-Involves a membrane vesicle.

Endocytosis - The process of transporting material into a cell by means of a vesicle. Materials become enclosed within an in-pocketing of the cell membrane. The outer surface of the membrane closes over, pinching off the pouch within the cell. Inside cell contents are released.

Pinocytosis-The process in which liquids or very small particles from the surrounding medium are taken into a cell by the formation of a vesicle

Phagocytosis - The process in which large particles or small organisms are ingested into a cell by the formation of a vesicle

Exocytosis - The movement of materials out of the cell by the reverse of endocytosis

Tissue - In multi-cellular organisms, a group of cells that are similar and are organized into a functional unit; usually integrated with other tissues to form an organ