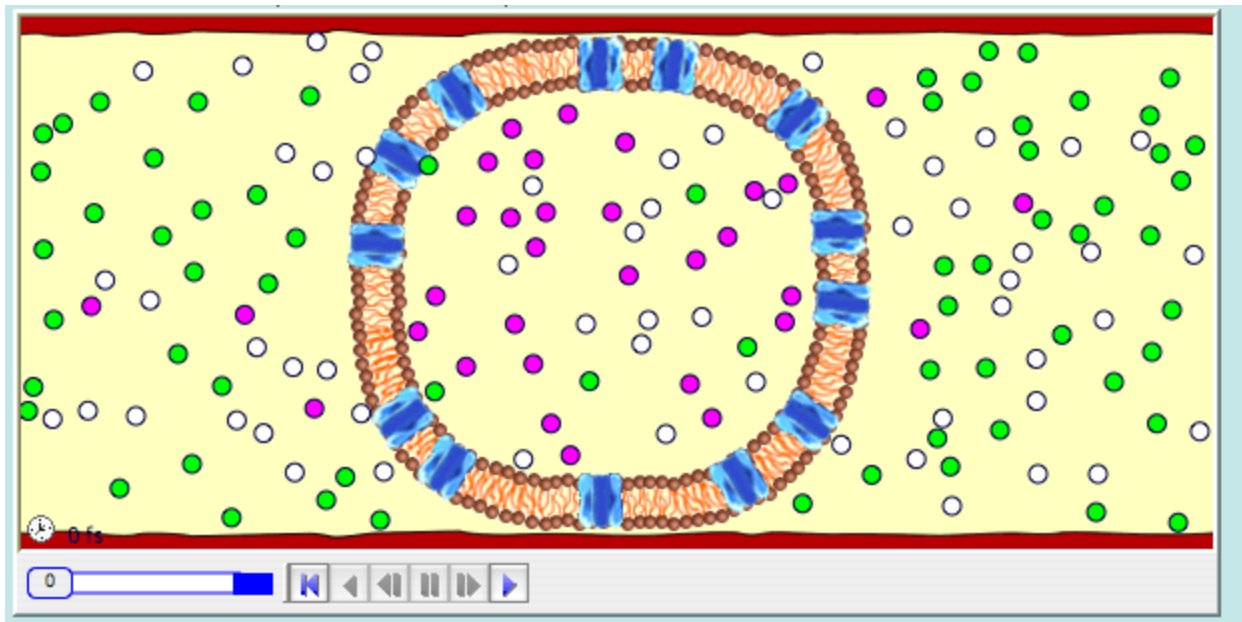


Diffusion: molecules moving from high concentration to low concentration.

Osmosis: The diffusion of water from high concentration to low concentration.



Diffusion is the movement of molecules from areas of high concentration to areas of low concentration. An example is when you open a bottle of perfume the molecules spread out in the room.

Diffusion also occurs through the semi-permeable cell membrane. Molecules which can go directly through the cell membrane or through carrier protein channels. Using a protein channel is called facilitated diffusion. Both move molecules from high concentration to low concentration, flowing down the concentration gradient. Eventually the molecules will be equally dispersed & the cell is said to reach equilibrium.. (# inside = # outside)

Osmosis is the diffusion of water from high concentration to low concentration.

An isotonic solution contains the same concentration of solutes and water as does the cell.

A hypotonic solution contains less solutes and more water than the cell. (Distilled water)

A hypertonic solution contains more solutes & less water than the cell. (Salt water) The water concentration is higher inside the cell.

Active transport moves molecules from low to high concentration which is up the concentration gradient. Since this requires an output of energy it is called active transport.

Endocytosis & exocytosis are used to transport substances too large to pass through the cell membrane or through protein channels.

In endocytosis cells ingest fluids, macromolecules & large particles by surrounding them with the cell membrane which then forms a vesicle.

Pinocytosis transports fluids into the cell. (cell drinking)

Phagocytosis transports solids into the cells.

In exocytosis vesicles within the cell fuse with the cell membrane & then release their contents to the outside of the cell.