**Cellular Transportation**



Cell Membrane:

* Cell membranes are **semi permeable**. This means that the cell membrane will only allow certain molecules through it.

There are different ways that substances travel across the cell membrane.

1. **Passive Transport: NO ENERGY NEEDED!**

**Diffusion:** Compounds move from high concentration to low concentration. Substances will continue to move until equilibrium is reached.



**Osmosis:**  the diffusion of water

1. **Active Transport: ENERGY REQUIRED!**

**Endocytosis**: Large compounds are brought into the cell

**Exocytosis** :Large compounds are sent out of the cell

**Phagocytosis**: Cytoplasm surrounds a particle and packages it within a food vacuole

**The Effect of Osmosis of Cells**

Osmosis is the diffusion of water.

**HYPOTONIC\_\_**: Water moves into the cell and causes the cell to SWELL.

**HYPERTONIC**: Water moves out of the cell and causes the cell to SHRINK.

**ISOTONIC**: Concentrations are equal or the same. This causes the cell to remain its normal shape. The amount of water is balanced inside and outside the cell.

