**Cell Transport**

**Phospholipid Bilayer a.k.a** the \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Regulates what \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_ the cell.
* Selectively Permeable
* Provides \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Composed of \_\_\_\_\_\_ Flexible Layers
* Forms a strong barrier between the cell and its surroundings

**Phospholipid Structure**

* The polar Phosphate group is **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
* Water \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* The non polar fatty acid tails are **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* Does not like water

**Selectively Permeable**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Diffusion**

* Movement of particles from an area of \_\_\_\_\_\_\_\_\_\_\_\_ concentration to an area of \_\_\_\_\_\_\_\_\_\_\_ concentration without the use of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* particles move \_\_\_\_\_\_\_\_\_\_\_\_ the concentration gradient.
* When the particles are even throughout a space - it has reached \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Osmosis**

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ through a selectively permeable membrane.

**Osmotic Pressure**

Osmosis exerts pressure (osmotic pressure) on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ side of the membrane.

**Tonicity**

 The osmotic pressure or tension of a solution, as in the cells would swell or shrink depending on the tonicity of the environment.

**Hypertonic Solutions**

* Contain a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ concentration of solutes (dissolved substances) than the cell.
* Water moves \_\_\_\_\_\_\_\_\_\_\_\_\_ of the cell causing it to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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**Isotonic Solutions**

* Contain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ concentration of solutes (dissolved substances) as the cell.
* Water moves freely \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_ of the cell maintaining \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.



**Hypotonic Solutions**

* Contain a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ concentration of solutes (dissolved substances) than the cell.
* Water moves \_\_\_\_\_\_\_\_\_\_\_\_\_\_ the cell causing it to \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and possibly \_\_\_\_\_\_\_\_\_\_\_\_.



**Facilitated Diffusion (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)**

* The movement of particles across the cell membrane with the aid of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (protein channels).
* Does not require \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Example: Red blood cells have a channel that allows glucose to pass through it in either direction

**Active Transport**

* Cells sometimes need to move materials \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the concentration gradient.
* Requires \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ And the help of a membrane protein

**Endocytosis**

* Large molecules and even solid clumps of materials may be transported \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the cell by the folding in of the cell membrane.
	+ Phagocytosis
		- The taking in of \_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Pinocytosis
		- The taking in of \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Exocytosis**

 The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of large amounts of materials from the cell.