**Biology Note-taking Guide**

**7.3 A: Passive Transport**

\*DO NOT TURN IN\*

**The Cell Membrane**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells have a cell membrane
* The function of the cell membrane is to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and to protect and support the cell.



* The cell membrane is made of a lipid bilayer with embedded proteins.
* The “heads” of the lipid bilayer are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, meaning they don’t combine with water.
* The “tails” of the lipid bilayer are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, meaning that they will combine water.
* This structure keeps the inside of the cell (cytoplasm) separate from the outside of the cell.

**Passive Transport**

* The two types of passive transport are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a special type of facilitated diffusion involving the transport of water.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ does **NOT** require cellular energy to move substances across the cell membrane.

**Diffusion**

* Diffusion is the movement of substances from an area of \_\_\_\_\_\_\_\_\_\_\_\_\_ concentration to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ concentration until equilibrium is reached.

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* + Equilibrium means that the particles are spread out evenly
	+ Small hydrophobic stuff like \_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_ can do this.

**Facilitated Diffusion**

* Facilitated diffusion is the diffusion of larger substances like glucose through the cell membrane with the help of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.



**Osmosis: A Special Type of Facilitated Diffusion**

* Osmosis is the facilitated diffusion of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ across the cell membrane through special protein channels called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.



* Remember **SALT SUCKS** – Water moves towards the area with a higher concentration of solute (salt)



* In animal cells when the solution is hypotonic, the cell could burst and die because osmosis moves water in the cell. Organelles called contractile vacuoles help pump water back out of the cell.