**Cell Membrane Structure and Function Notes**

Essential Question: How does the cell membrane’s structure allow it to maintain homeostasis?

**Homeostasis Review:**

* The ability to maintain a stable internal environment (even if the environment changes!)
* Cell membranes are important in maintaining the correct level of fluids inside

**Cell Membrane Structure (how its made)**

1. Phospholipid Bilayer

a) phosphate group head- Hydrophilic (loves water)

b) fatty acid tails- Hydrophobic (hates water!)

* + - Remember: tails in, heads out

2. Cholesterol

* + a) gives the cell membrane strength

3. Proteins

* + a) Creates pores or channels to allow large molecules to pass through

**Cell Membrane Function (how/why it works)**

* Regulates what enters and leaves the cell
* Maintains homeostasis because it is semi-permeable (only allowing certain materials to enter or exit)

**Transport= Movement of materials or molecules across the membrane**

* Passive Transport (no energy required)= Movement of materials from HIGH to LOW concentrations

1. Diffusion= random movement of particles from high concentration to low concentration

* + - Stops when equal on both sides
		- Ex. Osmosis- when WATER moves across the membrane

2. Facilitated Diffusion= movement from high to low concentration through a protein pore

* + - When particles are TOO LARGE to pass through