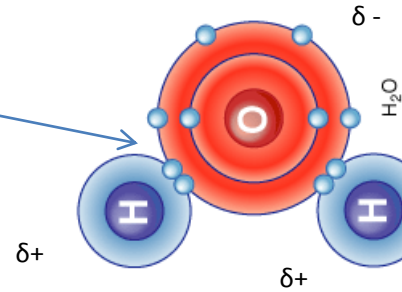
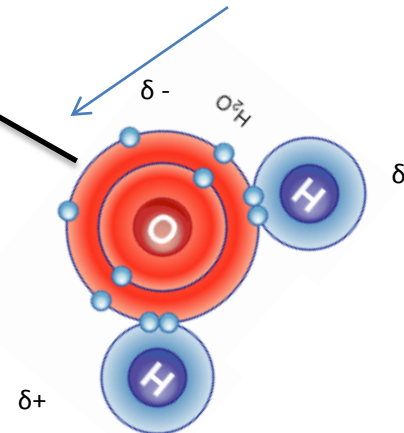


# Everything I know about H<sub>2</sub>O!!

Covalent Bond: Hydrogen and Oxygen share the electrons



Hydrogen Bond: Between two water molecules

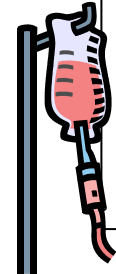


**Polarity:**  
Oxygen side is slightly negative (δ-),  
Hydrogen sides are slightly positive (δ+)

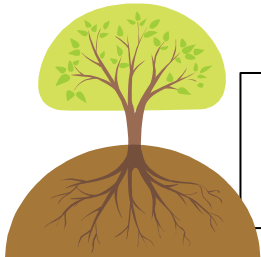


**Different Densities:**  
Water is less dense as a solid, meaning frozen water will not sink!

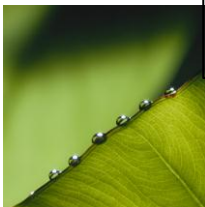
**Universal Solvent**  
Can break down covalent and ionic bonds allowing lots of molecules to be dissolved into solution. Ex: salt water and sugar water. (Saline solutions dissolve in blood)



**Surface Tension:**  
Allows insects to "walk" on water



**Adhesion**  
Movement of water upward from roots to stems to leaves.



**Cohesion**  
Allows water to form drops

**High Heat Capacity:**  
Specific heat of water = 4.187 kJ  
(That's a lot of energy needed to raise water just 1°C.) This property helps organisms maintain homeostasis!