

water

polar molecule

intramolecular forces

attraction between atoms within molecule

intermolecular forces

- attraction between molecules
 - Oxygen has negative force
 - hydrogen positive force

Hydrogen bonding

attraction of bonded hydrogen atom to unbonded electron pair on another molecule

does not make up chemicals it is between two SEPERATE chemicals

physical properties of water

surface tension

resistance of liquid to an increase in surface area

cohesive forces

forces holding liquid together to present minimum surface area

water is sticky

capillary action

spontaneous rising of liquid in narrow tube due to two forces

- cohesion
- adhesion

cohesion and adhesion

adhesion - water sticking to something else

cohesion - water sticks to water

allows water to bead up

cohesion and adhesion create high surface tension which allow somethings to walk on water

Great Solvent

the universal solvent

hydrophilic - polarity is stronger than cohesive forces of water

water will bond around polar substances

hydrophobic - nonpolar that get pushed out by water's cohesive substances

Ice density

solid less dense than liquid

heat capacity

- water is good at retaining heat
 - **helps keep temperature constant**

sweating explained

heat breaks hydrogen bonds as water evaporates and takes heat with them which cools you down