

ATOMS AND BONDING

IONIC BONDS:

- 2 atoms with opposite charges attract
- EX: sodium and chloride (have a 1:1 ratio)

COVALENT BONDS:

-2 atoms share one or more pairs of outer shell electrons

- EX: connects 2 hydrogen atoms

Nonpolar:

-electrons are shared evenly

-both compounds will be close in electronegativity

Polar:

-pulling of shared, negatively charged electrons

-makes the atom partially negative and the other electron partially positive

ACIDS: a compound that donates a H^+ (hydrogen atom) to the solution

BASES: a compound that removes an H^+ from the solution

-basic solutions called alkaline

BUFFERS: a substance that minimizes changes in PH level

- Removes an H^+ when there is too many, but donates an H^+ when there are too few)
- EX: carbonic acid (located in the blood stream)
- EX: sodium bicarbonate(located in the pancreas)

PROPERTIES OF WATER

-the overall charge of a water molecule is polar(the bonds between hydrogen and oxygen are polar)

-allows water to be a UNIVERSAL SOLVENT

Cohesion: the attraction of water molecules

Adhesion: the attraction of water molecules to other things