

Name: _____ Period: _____ Date: _____

Chapter 2: Inorganic Chemistry

- Atomic structure and the periodic table
- Bonds – ionic, covalent (and hydrogen)
- Solubility and polarity, electrolytic properties
- Properties of water, hydrogen bonding
- Acids, bases and buffers

Atomic structure

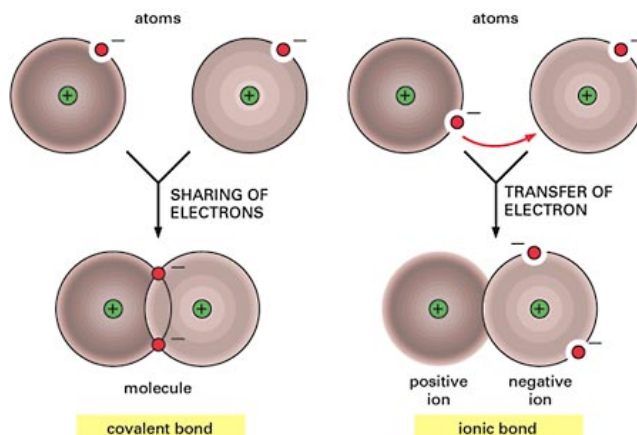
● Atomic number	
● Atomic mass	
● Number of electrons	
● Electron energy level	
● # valence electrons	

Bonds involve valence electrons

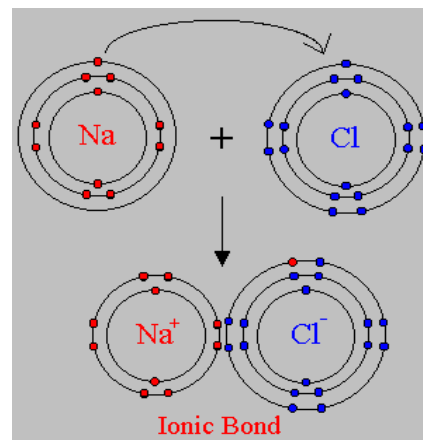
● Metals tend to _____ electrons	
● Nonmetals tend to take electrons when bonding with metals	
● Nonmetals tend to share electrons when bonding to other non-metals	

What is a cation? What is an anion?

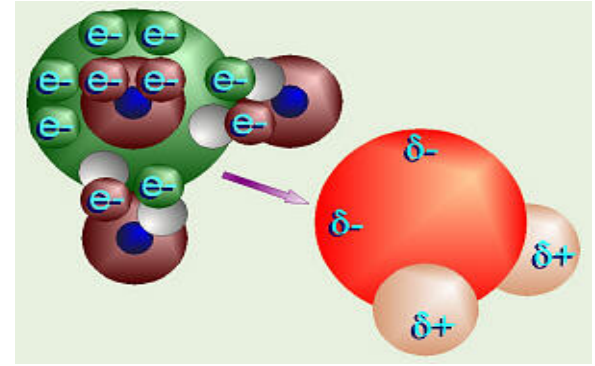
Ionic bonds – What do you know?



Covalent bonds – What do you know?



WATER – It is ‘polar covalent’, what does that mean?



Water is the “Versatile Solvent”

The hydrogen bonds between _____ and _____ cause unique properties of water

Polar solvents dissolve polar solutes

- Give examples of compounds that dissolve in water:

- Only ionic compounds form _____ in water

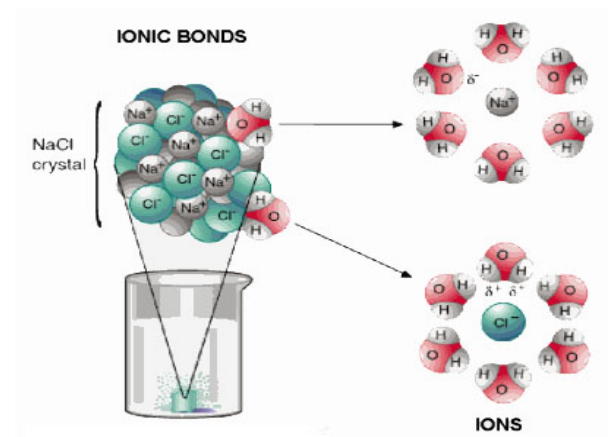
Nonpolar solutes do not dissolve in polar solvents (water)

- Examples:

Acids, Bases, Buffers

- Acids release H^+ in solution
- Bases release OH^- in solution

What is a buffer? Give an example.



Why are buffers important to ecological systems?

