Chemistry

Rules for Writing and Naming Simple Ionic & Covalent Compounds

Naming Molecules

1st element: -If there is only 1,- "normal" name

-If more than 1, add a prefix

2nd element:

-Always use a prefix AND change ending to -ide

EXAMPLES:

 N_2O

PCI₃ SF₆

CO CO2 **Prefixes**

1 = mono-

2 = di-

3 = tri-

4 = tetra-

5 = penta-6 = hexa-

7 = hepta-8 = octa-

9 = nona-

10 = deca-

Ionic Binary Compounds

- * lonic compound made of two elements. 1st element is a metal 2nd element is a nonmetal
- Naming Binary Compounds 1st element - same name 2nd element- change ending to -ide
 - **When cation is transition, you must include Roman Numerals to tell its oxidation #**

Names to Formulas (binary compounds)

Sodium Chloride Aluminum Sulfide

Magnesium Iodide Potassium Iodide

Calcium Oxide Magnesium Nitride

What about Transition, Tin, and Lead??

E-Configuration Explanation:

Writing and Naming: Iron (III) Oxide

Fe3+

 PbO_2

PbO

MEMORIZE: Zn+2

Polyatomic Ions in Ionic Compounds

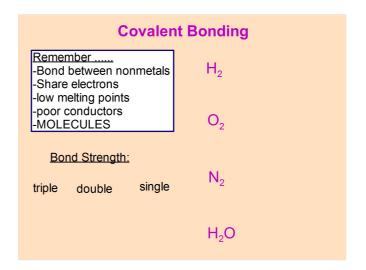
Naming Rules

- 1. Name cation and anion according to previous naming
- 2. **When naming the polyatomic, give it the name you learned - nothing changes!

Bonding Rules

- 1. Never change a polyatomic's subscripts.
- 2. When criss-crossing oxidation #s, use parenthesis around the polyatomic.

Polyatomic Examples Aluminum Nitrate Copper (II) Sulfate Calcium Hydroxide Silver Nitrate Potassium Cyanide Ammonium Phosphate Ammonium Chloride



Diatomic Molecules

Discovered by **BrINCIHOF**

-They can <u>never</u> be alone. If they are not bonded to another element, then there are two of them.

More Practice..... F₂ HCI CH₄ CO₂

Activote Quiz!

Decide if each is Ionic (A) or Covalent (B)

- 1. NaCl
- 2. N₂0
- 3. CaSO₄
- 4. FeO
- 5. H₂O