

Ionic Compounds

Naming:

1. Name the cation using the element's name off the periodic table
 - * if the metal has multiple charged states (those metals that have "d" electrons available to give away) , a Roman numeral is added after the cation's name to indicate the ion's charge
2. Name the anion
 - a) If only one element symbol - use the root name with an *-ide* ending
 - b) If it contains more than one element - use the name of the polyatomic ion

Writing formulas: The general rule is to "criss-cross" the absolute value of the charges to balance out the transfer of electrons

Covalent Compounds

Naming:

1. Name the 1st element in the formula directly off the periodic table
2. Name the 2nd element using the root name with an *-ide* ending
3. Add prefixes to each element to indicate the number of atoms that are present in the compound (* mono- is not used for the 1st element)

Writing Formulas: Use the prefixes in front to determine the subscripts for each element

Acids

Naming:

A. Binary acids

- a) use the prefix "hydro-"
- b) plus root name of the 2nd element with *-ic* ending
- c) add the word "acid" to the end

B. Oxyacids

NO "hydro"

- a) name is based on the name of the polyatomic ion
 - if it ends in *-ate* change to *-ic* ending
 - if it ends in *-ite* change to *-ous* ending
- b) add the word "acid" to the end

Writing formulas: Use "criss-cross" rule with hydrogen as your cation