

Formula writing and Naming Rules for Ionic and Covalent Compounds

Make sure you have this information on your periodic table!!!

Valence Electrons

These Groups will lose electrons, making them positive

The diagram shows a periodic table with arrows pointing from the word "positive" to groups 1, 2, and 3. The groups are labeled with numbers 1 through 8 above the table. The elements in each group are listed as follows:

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	
H							He	
Li	Be		B	C	N	O	F	Ne
Na	Mg		Al	Si	P	S	Cl	Ar
K	Ca		Ga	Ge	As	Se	Br	Kr
Rb	Sr		In	Sa	Sb	Te	I	Xe
Cs	Ba		Tl	Pb	Bi	Po	At	Rn
Fr	Ra							

Ionic Compounds – Formula (Binary)

1. Write the ions with their charges.
2. Cross the charges, drop the + and -

Ex: Magnesium Phosphide Ex: Aluminum Nitride



Ionic Compounds – Naming (Binary)

1. Write the first ion's name, no changes.
2. Write the second ion's name, changing the ending to -ide.

Ex: NaCl

Sodium Chloride

Ex: Mg_3P_2

Magnesium Phosphide

Ionic Compounds Practice

- Sodium Sulfide
- Barium Nitride
- Aluminum Bromide
- Potassium Phosphide
- Ammonium Fluoride
- Li_2O
- K_2O
- CaBr_2
- Al_2S_3
- Rb_2S

Covalent Compounds - Formula

1. Write out the 1st element, using the numerical prefix as the subscript.
2. Write out the 2nd element, using the numerical prefix as the subscript.

Ex: Dihydrogen Oxide



Ex: Carbon Dioxide



Covalent Compounds - Naming

1. Write out the numerical prefix of the 1st element, then write it's name.
2. Write out the numerical prefix of the 2nd element, then write it's name, changing the ending to -ide.



Dinitrogen Pentoxide



Carbon Tetrachloride

Covalent Compounds Practice

- Trinitrogen Hexafluoride
- Silicon Dioxide
- Carbon Tetra bromide
- Triphosphorous Nona sulfide
- Chlorine Trioxide
(Chlorate)
- I_2O
- NO
- F_7Br_2
- P_2S_3
- SO_4