

**Binary Ionic Compounds Guided Notes:***Ionic bond* – \_\_\_\_\_

- Positive ions are called \_\_\_\_\_ (\_\_\_\_\_ electrons), \_\_\_\_\_ (left side of the PT)
- Negative ions are called \_\_\_\_\_ (\_\_\_\_\_ electrons), \_\_\_\_\_ (right side of the PT)

*Ionic compounds* – compounds that contain ionic bonds

- One atom gains electrons (\_\_\_\_\_ -- \_\_\_\_\_)
- one atom loses electrons (\_\_\_\_\_ -- \_\_\_\_\_)
- Atoms gain or lose to achieve \_\_\_\_\_ -- an \_\_\_\_\_

*Binary Ionic Compounds* – compounds containing only \_\_\_\_\_

- May contain \_\_\_\_\_ of each element, but only 2 elements
- Examples: \_\_\_\_\_
- Cation (\_\_\_\_\_ ) is written \_\_\_\_\_
- Anion (\_\_\_\_\_ ) is written \_\_\_\_\_

Writing the formulas for Ionic Compounds:

1. Na and F

2. Ca and O

3. Mg and F

4. Al and S

**Formula Writing Binary Ionic Compounds:**

- You don't need to draw the transfer of electrons to write binary ionic compounds.

*What do you notice about the charge and the subscripts when you write the formula with Al and O?*

- Steps for Writing Binary Ionic Compounds:
  1. Figure out the charges for each ion
  2. Drop the sign of the charge (+ or -)
  3. Switch the number of the charge from the cation to the anion and vice versa.

Example: Mg and P

Write the binary ionic formula for the following:

1. Sr and Cl
2. K and N
3. Be and N
4. Mg and O

*Naming Binary Ionic Compounds:*

- \_\_\_\_\_: lose electrons, positive charge, metal  
-- NAME DOES NOT CHANGE
- \_\_\_\_\_: gain electrons, negative charge, nonmetal  
-- CHANGE THE ENDING TO -ide

Write the names for the binary ionic compounds below:

1.  $\text{CaCl}_2$
2.  $\text{Rb}_3\text{N}$
3.  $\text{Sr}_3\text{N}_2$
4.  $\text{MgS}$