

Notes for Naming and Writing Formulas of Ionic Compounds

- Ionic Compounds
 - Form with ionic bonds when atoms exchange electrons
 - Form crystals
 - Dissolve easily in water
 - Conduct electricity, when dissolved in water, and are called electrolytes that help with nerve and muscle function
- Ionic Bonds
 - Form when metals lose electrons and non-metals gain electrons and develop a charge.
 - Oppositely charged ions attract each other and form an ionic bond.

- Writing Formulas

- Write the chemical symbol of the first element, along with its oxidation number as a superscript. (Metal atom)

- Example: Calcium \rightarrow Ca^{+2}

- Write the chemical symbol of the second element, along with its oxidation number as a superscript. (Non-metal atom)

- Example: Nitrogen \rightarrow N^{-3}

- Crisscross the superscripts and write them as subscripts, **WITHOUT** the charges.

- Example: Ca^{+2} N^{-3}

 Ca_3N_2

- **Naming Ionic Compounds**

- **Write the full name of the first element (metal)**

- **Example: NaCl**

Sodium

- **Write the beginning of the second element's name (Non-metal), then change the ending to "ide".**

- **Example: Na Cl**

Chlor → Chloride

Sodium Chloride

- Endings for all the Non-Metals:

Nitride

Phosphide

Oxide

Sulfide

Fluoride

Chloride

Bromide

Iodide