# Naming Molecular and Ionic Compounds

* a compound made from two different elements is called a **BINARY COMPOUND**

-naming of *MOLECULAR BINARY COMPOUNDS* and *IONIC COMPOUNDS* follow the rules set out by the **International Union of Pure and Applied Chemistry (IUPAC)**

**To start:** 1. Determine if the molecule is molecular or ionic.

**\*Remember: Molecular (non-metal / non-metal)**

**Ionic (metal / non-metal)**

2. Write the **entire name of the first element.**

3. Change the ending on the name of the second element to **-*ide*.**

e.g. oxygen **oxide**, fluorine **fluoride,** carbon **carbide,**

phosphorus **phosphide,** nitrogen **nitride**

4. If its:

Ionic

Molecular

Use a **prefix** to indicate the number of each type of atom in the formula:

**Mono** for one **Hexa** for six

**Di** for two **Hepta** for seven

**Tri** for three  **Octa** for eight

**Tetra** for four **Nona** for nine

**Penta** for five **Deca** for ten

**DO NOT** include the prefixes for the number of elements present in the molecule

***\*You do not but mono in front of the first element but it is necessary in front of the second element if there is only one of them.***

***e.g. CO is carbon monoxide***

e.g. CO2 1. **Molecular** or Ionic?

2. **Carbon**

3. **Oxide**

4. **Carbon dioxide**

e.g. CCl4 1. **Molecular** or Ionic?

2. **Carbon**

3. **Chloride**

4. **Carbon tetrachloride**

e.g. NaF 1. Molecular or **Ionic**?

2. **Sodium**

3. **Fluoride**

4. **Sodium fluoride**

e.g. Al2O3 1. Molecular or **Ionic**?

2. **Aluminium**

3. **Oxide**

4. **Aluminium oxide**