**3.2 Names and Formulas of Ionic Compounds** Name

(Part One) Date

(Refer to pp. 84 – 95 of BC Science 9)  Block

**Chemical name**

* + - * + The chemical name always has **2** parts.

1st part: **positive** ion, which is always a **metal** in a compound containing **2** elements.

2nd part: **negative** ion, which is always a **nonmetal** in a compound containing **2** elements.

non-metal names end in "-**ide**". Ex. Chlorine turns into chloride

**Rules for Writing the Names of Ionic Compounds**

**Naming Two Element Ionic Compounds**

|  |  |  |  |
| --- | --- | --- | --- |
| **Rule** | Example 1  K3P | Example 2  MgS | Example 3  Al2O3 |
| 1. Name the metal ion. |  |  |  |
| 2. Name the non-metal ion with the ending "-ide". |  |  |  |
| 3. Write the name of the compound. |  |  |  |

**Try these:**

1. AlBr3  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Li2O \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Rules for Writing Formulas of Ionic Compounds**

* positive charges **balance** negative charges.

use this to find the r**atio** of positive ions to negative ions.

use the ratio to write **subscripts** in the formula.

Final formula must represent the smallest **whole** number ratio.

**Writing Formulas for Two Element Ionic Compounds**



|  |  |  |  |
| --- | --- | --- | --- |
| **Rule** | Example 1  sodium fluoride | Example 2  calcium oxide | Example 3  magnesium phosphide |
| 1. Identify each ion and its charge. |  |  |  |
| 2.Determine the total charges needed to balance positive with negative. |  |  |  |
| 3. Note the ratio of positive ions to negative ions.  (OR Swap and drop) |  |  |  |
| 4. Use subscripts to write the formula |  |  |  |

**Try these:**

1. Ca+2 with Cl-1\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. aluminum sulphide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_