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

(Part Two) Date

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

**Compounds containing a mulivelent metal**

* + - * + Remember, this *Part II* of this section is a continuation. Same method to naming and formulas
        + **Multivalent** – metals that form ions in more than one way
        + The Roman Numeral tells you two things:

The metal can form ions with different charges

The charge on the metal ion.

**Rules for Writing FORMULAs of Ionic Compounds containing multivalent metals**

|  |  |  |
| --- | --- | --- |
| **Rule** | Example 1  Iron (III) Bromide | Example 2  Tin (IV) Nitride |
| 1. Identify each Ion and its charge |  |  |
| 2. Use subscripts to write the formula |  |  |
| 3. Double Check: does the ratio of (+) and (-) ions balance out the ratio of atoms? |  |  |

**Try these:**

1. Lead (II) Oxide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Copper (II) Chloride \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Rules for Writing names of Ionic Compounds containing multivalent metals**

|  |  |  |  |
| --- | --- | --- | --- |
| **Rule** | Example 1  Cu2S | Example 2  CrF2 | Example 3  Fe2O3 |
| 1. Identify the metal and its charge (s) from the periodic table |  |  |  |
| 2.Determine the ratio of the ions on the formula |  |  |  |
| 3. Note the charge of the (-) ion from the period table |  |  |  |
| 4. Choose the charge from the (+) ion or metal that balances out the formula |  |  |  |
| 5. Write the name of the compound |  |  |  |

**Try these:**

1. NiO\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. MnCl2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_