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

 (Part Three) Date

 (Refer to pp. 88 – 95 of BC Science 9) Block

**Polyatomic Ions**

* \_\_\_\_\_\_\_\_\_\_\_\_ that are able to gain or lose electrons form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

carries an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ so it cannot exist on its own.

always pairs up with ions that carry an \_\_\_\_\_\_\_\_\_\_\_ charge.

* **Refer to Table 3.10 on p. 92, and the back of your periodic table for common polyatomic ions.**

**Ionic Formula for Ionic Compounds Containing a Polyatomic Ion**

|  |  |  |
| --- | --- | --- |
| **Steps for Writing the Formula** | **Example 1****iron (III) carbonate** | **Example 2****ammonium sulphate** |
| 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. |  |  |
| 4. Use subscripts to write the formula. |  |  |

**Try these:**

1. potassium acetate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. ammonium hydroxide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Naming Ionic Compounds Containing a Polyatomic Ion**

|  |  |  |
| --- | --- | --- |
| **Steps for Writing the Name** | **Example 1**Cu2SO4 | **Example 2**NH4CH3COO |
| 1. Identify the positive ion, check if it is multivalent and write its name. |  |  |
| 2. Identify the negative ion and write its name. |  |  |
| 3. Write the name of the compound. |  |  |

**Try these:**

1. NaOH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. (NH4)2CO3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_