LEARNING AS ONE NATION

Expanded Project

GC1 Q1_10

S H S L E A R N I N G A C T I V I T Y

Name: _____ **Score/Mark:** _____

Grade and Section: _____ **Date:** _____

Strand: ☑ STEM ☐ ABM ☐ HUMSS ☐ ICT (*TVL Track*)

Subject: *General Chemistry 1*

Type of Activity: ☑ Concept Notes ☐ Skills: Exercise/Drill ☐ Illustration ☐ Performance Task ☐ Essay/Report ☐ Others: _____

Activity Title: **A-08. Names and Chemical Formulas of Ionic Compounds**

Learning Target: To name and write chemical formulas of ionic compounds
To classify ionic compounds

References: *(Author, Title, Pages)* De Guzman, D. F., et. al., Discover Science Chemistry, pp. 165-166
M.D.A.D. Cadeliña, CVIF-DLP Learning Activities

Cations and anions are components that form ionic compounds. There are two types of ionic compounds: **binary** (made of two elements) and **ternary** (made of three elements). These two are named in the same way. To name a given ionic compound, the cation name is stated first followed by the anion name. To write a **chemical formula**, these guidelines should be followed:

1. Write down ions which will combine to form a compound.
2. Crisscross the charges of ions. The charges will be the subscripts of the elements in the formula. If there is only one atom of an element, the number one (1) is no longer written.
3. When there are polyatomic ions, use a parenthesis to separate them from the subscript that indicates the number of ions in the formula.
4. The numerical subscript of the formula must be written in its simplest form by dividing the subscripts by any common multiple.

	Chemical formula to name	Name to chemical formula
Binary compound	$Al_2O_3 \rightarrow Al^{3+} + O^{2-}$ Aluminum + oxide Aluminum oxide	Calcium chloride Calcium + chloride $Ca^{2+}\ Cl^{-} \rightarrow \boxed{CaCl_2}$
Ternary compound	$Mg(OH)_2 \rightarrow Mg^{2+} + OH^{-}$ Magnesium + hydroxide Magnesium hydroxide	Copper (II) sulfate Copper (II) + sulfate $Cu^{2+}\ SO_4^{2-} \rightarrow Cu_2(SO_4)_2$ $\rightarrow \boxed{CuSO_4}$

Exercise: Write the name or the formula as appropriate. Show the complete process following the examples.

1] Sodium hydrogen carbonate
2] Lithium phosphate
3] Lithium iodide
4] Cobalt (II) dichromate
5] K_2CO_3
6] MgO
7] $KClO_4$
8] $HgSO_4$