LEARNING AS ONE NATION

Expanded Project

GC1 Q1_3

SHS LEARNING ACTIVITY

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-01. Dalton's Atomic Theory (~1805)**

Learning Target: To describe the atomic theory of John Dalton

References: *(Author, Title, Pages)*
Brown et al., Chemistry: The Central Science 12th edition. p. 40.
V. Sojo, CVIF-DLP Learning Activities

Unlike most scientists of his time, **John Dalton** (1766-1844) was born poor. He worked and studied very hard and went on to make multiple significant contributions to Science. Chief of these is his **Atomic Theory**, built upon work by many other scientists of his time (all great Science is built upon the knowledge gathered by previous scientists; therefore, we must study their work). The main ideas of Dalton's atomic theory are:

1. Elements are made of extremely small particles (the atoms).
2. Atoms of the same element are identical or exactly the same.
3. Atoms of different elements are different.
4. Atoms are **indivisible**.
5. In a chemical compound, atoms of different elements are combined in simple proportions of integer (whole) numbers (1, 2, 3, …).
6. In chemical reactions, atoms are combined, separated, or rearranged.
7. Atoms cannot be created or destroyed.
8. Atoms of an element do not change into atoms of another element.

Exercises: Explain in two (2) sentences maximum.

1. Explain why the underlined part in idea #4 is now known to be wrong.
2. We also know that ideas #7 and #8 are right in the vast majority of the chemistry that we do. However, there are cases in which atoms can indeed be created, destroyed, or transformed into other atoms. Identify and describe at least one process to which these cases belong.