LEARNING AS ONE NATION

Expanded Project

SHS LEARNING ACTIVITY

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

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

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

Subject: _____

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

Activity Title: **LA01.1: Exercises on Review: Atomic Theory of Matter**

Learning Targets:
1) To calculate the number of sub-atomic particles and the over-all charge of an atomic species.
2) To draw the simplified representation of an atomic species.

References:
(Author, Title, Pages)

Exercises:

1) **Complete the table** below by providing the:
   a) **necessary information** on the $^{A}_{Z}\mathbf{X}$ representation;
   b) **number of sub-atomic particles**; and
   c) **over-all charge** of the atomic species highlighted.
2) **Draw** a simplified representation of the atomic species. You may follow the same legend as that of **Fig. 1** in **LA01**, or you may opt to create your own. Properly indicate the symbols for each atomic species in your legend.

   (Note: In Junior High School Chemistry, it is stated in **Pauli's Exclusion Principle** that **no more than two electrons can occupy the same orbital**. This is why in Fig. 1 in LA01, only **a maximum of two electrons** can be seen 'residing' in an orbital.)

	$^{19}_{9}\mathbf{F}^{2-}$
Element name	
Element symbol (**X**)	
Atomic number (**Z**)	
Mass number (**A**)	
Number of protons	
Number of neutrons (**N**)	
Number of electrons	
Over-all charge	
Type (Cation, Anion, or Neutral)	

Simplified representation of $^{19}_{9}\mathbf{F}^{2-}$: