Curriculum

Class: Grade 8

Subject: Chemistry

Cycle: 3

Textbook: National Textbook

Learning Domains/Units	Objectives	Learning Outcomes/ Competencies
 Pure Substances Elements (metals and non-metals) Compounds 		 Recognize that pure substances cannot be separated into simpler substances by physical separation techniques. Recognize that pure substances are characterized by specific properties such as boiling point, melting point and density. Classify pure substances into elements and compounds. Define elements and compounds. Classify elements into metals and non-metals. Describe the properties of metals and non-metals. Relate the properties of metals and non-metals to
Atoms, Molecules and Ions		 Recognize that matter is made up of particles which can be atoms, molecules, or ions. Define an atom List the names and charges of the three fundamental subatomic particles .

	 Calculate the number of fundamental particles in atoms and the charges of the nuclei and electron clouds given the atomic symbol of each. Represent the atomic symbols of certain atoms given the number of fundamental particles in each. Locate atoms in the periodic table given their atomic symbol. Define a molecule. Recognize that molecules can be made of the same or different atoms. Define ion. Explain the formation of cations and anions. Recognize that ions can be mono-atomic, di-atomic, or poly-atomic.
Symbols and Formulas	 Explain that symbols and formulas constitute a chemical language. Write the symbols of number of familiar elements. Write the formulas of a number of molecules and ions. Write the names of a number of compounds given their formulas.
Allotropes: diamond and graphite	 Define allotropes. Name two allotropic forms of carbon (graphite and diamond). Relate the properties of the allotropic forms of carbon to their uses.

Chemical Reactions	
Chemical equations	 Identify chemical reactions that take place in everyday life. Define chemical equation and identify reactants and
	products.Write chemical equations using word equations.Balance chemical equations.
Types of chemical reactions	 Identify and illustrate by examples the three types of chemical reactions: decomposition, synthesis, and displacement (single and double) reactions.
Rate of chemical reactions	 Relate time to the progression of chemical reactions. Distinguish between the properties of fast and slow chemical reactions and give examples of each. Explain the effects of temperature and catalysts on the rate of chemical reactions.
Acids, Bases and Salts	 List the names of acids and bases used in everyday
Acidic and basic solutions	life.Identify the properties of acids and bases.
Acidity: Concept of pH	 Recognize that pH is a measure of the acidity of a solution. Describe the pH scale.
• Salts	 Recognize that salts are formed of anions and cations. Recognize some types of reactions used to prepare salts.