

## Curriculum

Class: 8 I.P.  
Subject: Chemistry

Cycle:

Textbook: Physical Science – Glencoe  
Mc Graw Hill

Units	Objectives	Learning Outcomes
1- The Periodic Table	<u>The Periodic Table</u> <u>Lesson 1:</u> Using the periodic table <u>Lesson 2:</u> Metals <u>Lesson 3:</u> Non-metals and metalloids	<u>The Periodic Table</u> <u>Lesson 1:</u> 1- Organization of elements in the periodic table 2- Elements in groups and periods 3- Element keys  <u>Lesson 2:</u> 1-Location of metals in the periodic table 2- Characteristics of metals 3- Categories of metals: -Alkali metals -Alkaline earth metals -Transition metals  <u>Lesson 3:</u> 1- Location of non-metals and metalloids in the periodic table 2- Characteristics of non-metals and metalloids 3- Emphasis on semiconductors, halogens and noble gases.

<p>2- Elements and Chemical Bonds</p>	<p><u>Elements and Chemical Bonding</u>  <u>Lesson 1:</u> Electrons and energy levels  <u>Lesson 2:</u> Compounds, chemical formulas and covalent bonds  <u>Lesson 3:</u> Ionic and metallic bonds</p>	<p><u>Elements and Chemical Bonding</u>  <u>Lesson 1:</u>  1- Electron's distance from nucleus, energy and energy levels  2- Valence electrons    <u>Lesson 2:</u>  1- Chemical properties of compounds and elements they are made from  2- Covalent bonds  3- Properties of covalent bonds  4- Polarity of water molecule    <u>Lesson 3:</u>  1- Ionic bonds  2- Ions  3- Metallic bonds</p>
<p>3- Chemical Reactions and Equations</p>	<p><u>Chemical Reactions and Equations</u>  <u>Lesson 1:</u> Understanding chemical reactions  <u>Lesson 2:</u> Types of chemical reactions  <u>Lesson 3:</u> Energy changes and chemical reactions</p>	<p><u>Chemical Reactions and Equations</u>  <u>Lesson 1:</u>  1- Chemical reactions  2- Signs of chemical reactions  3- Reactants and products  4- Law of conservation of mass  5- Balancing chemical reactions    <u>Lesson 2:</u>  1- Types of chemical reactions    <u>Lesson 3:</u>  1- Chemical reactions and bond breaking and forming  2- Endothermic and</p>

<p>4- Mixtures and Solubility</p>	<p><u>Mixtures and Solubility</u>  <u>Lesson 1:</u> Substances and mixtures  <u>Lesson 2:</u> Properties of solutions</p>	<p>exothermic reactions  3- Factors affecting the rate of chemical reactions  4- Catalysts</p> <p><u>Mixtures and Solubility</u>  <u>Lesson 1:</u>  1- Difference between substances and mixtures  2- Differences between substances (elements and compounds)  3- Differences between mixtures (homogeneous and heterogeneous)</p> <p><u>Lesson 2:</u>  1- Solvents and solutes  2- Types of solutions  3- Concentration  4- Solubility  5- Saturated versus unsaturated solutions</p>
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