

**Form 2 Chemistry  
Scheme of Work  
2017/ 2018 Term III**

Week	Topics/ Objectives	Activities
1	Return papers and clarify any misconceptions	Teacher will address any problems encountered by students on any topics.
2-4	<p style="text-align: center;"><b>Periodic Table</b></p> <ul style="list-style-type: none"> <li>-Outline(include groups, periods, metals, non-metals&amp; metalloids; Discuss arrangement of elements;</li> <li>-Groups(include group# written as Roman numerals),</li> <li>-Periods;</li> <li>-Explain electronic configuration and information it provides with respect to group # and period # to identify an element;</li> <li>-Group I,II, VII &amp; VIII- Names and how their reactivity varies ascending/ descending the group and general points about the groups (include the formulae of the halogens as diatomic molecules and their state symbols at room temperature);</li> <li>-Mention the Transition Metals and general properties</li> </ul>	Students will identify the uses of elements from the different groups.
5-6	<p style="text-align: center;"><b>Bonding</b></p> <ul style="list-style-type: none"> <li>-Reasons for elements bonding;</li> <li>-The three types of bonding and the type of atoms involved ( ionic- metal &amp; non-metal atoms, covalent- non-metals and metallic- one type of metal atoms.)</li> <li>-<i>Note: State covalent bonding involves i) <b>Giant macromolecular</b> structures ii) <b>simple covalent molecules</b> which have <b>weak intermolecular forces (van der Waals forces)</b> which are easily broken (little energy required unlike the strong bonds which require large amounts of energy )</i></li> </ul>	Teacher will give exercises with combinations to identify the type of bonding present
7-8	<p style="text-align: center;"><b>Balanced Chemical equations</b></p> <ul style="list-style-type: none"> <li>-List simple covalent molecules and their names: CO, CO<sub>2</sub>, SO<sub>2</sub>, SO<sub>3</sub>, NH<sub>3</sub>, CH<sub>4</sub>, H<sub>2</sub>O, NO, NO<sub>2</sub>, F<sub>2</sub>, Cl<sub>2</sub>, Br<sub>2</sub>, I<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub>, N<sub>2</sub></li> <li>- Write balanced chemical equations for any reaction given the reactants and products formed.</li> </ul>	<p>Teacher will state the importance of the anions and cations to write chemical formulae which is needed throughout the study of chemistry.</p> <p>Teacher will give students rxns to balance and correct them on the board ≈ 15</p>
9	<p style="text-align: center;"><b>Water Cycle &amp; Water Pollution</b></p> <ul style="list-style-type: none"> <li>-Processes involved; Diagram</li> <li>- Sources, effects and solutions to water pollution</li> </ul>	Given as a project at the beginning of the term to be submitted for course work (≈ two weeks allocated for project)