



## GCSE Chemistry

	Autumn term	Spring term	Summer term
<p><b>Year 10</b></p> <p><b>Completed</b> 2015-16</p> <p><b>Options curriculum</b> 14 hours total per fortnight for Separate Sciences option</p>	<p>Students study the following topics:</p> <ul style="list-style-type: none"> <li>Atomic structure</li> <li>Ionic bonding</li> <li>The Periodic Table and covalent bonding</li> <li>Rates of Reaction</li> <li>The structure of the Earth</li> <li>Construction materials</li> <li>Metals and alloys</li> <li>Making cars</li> </ul>	<p>Students study the following topics:</p> <ul style="list-style-type: none"> <li>Cooking and food additives</li> <li>Smells</li> <li>Paints and pigments</li> <li>Making crude oil useful</li> <li>Using carbon fuels</li> <li>Clean air</li> </ul>	<p>Students study the following topics:</p> <ul style="list-style-type: none"> <li>Making polymers</li> <li>Designer polymers</li> <li>Manufacturing chemicals: making ammonia</li> <li>Acids and bases</li> <li>Fertilisers and crop yields</li> <li>Chemicals from the sea: the chemistry of sodium chloride</li> </ul>
<p><b>Year 11</b></p> <p><b>To be completed</b> 2016-17</p> <p><b>Options curriculum</b> 14 hours total per fortnight for Separate Sciences option</p>	<p>Students study the following topics:</p> <ul style="list-style-type: none"> <li>The Group 1 elements</li> <li>The Group 7 elements</li> <li>Transition elements</li> <li>Metal structure and properties</li> <li>Purifying and testing water</li> <li>Moles and molar mass</li> <li>Percentage composition and empirical formula</li> <li>Quantitative analysis</li> <li>Titrations</li> </ul>	<p>Students study the following topics:</p> <ul style="list-style-type: none"> <li>Gas volumes</li> <li>Equilibria</li> <li>Strong and weak acids</li> <li>Ionic equations and precipitation</li> <li>Electrolysis</li> <li>Energy transfers – fuel cells</li> </ul>	<p>Students study the following topics:</p> <ul style="list-style-type: none"> <li>Redox reactions</li> <li>Alcohols</li> <li>Depletion of the ozone layer</li> <li>Hardness of water</li> <li>Natural fats and oils</li> <li>Detergents</li> </ul>