



Topic Name	Term	Skills Developed	Link to NC Subject Content	Next link in curriculum	Other Notes
<b>Elements, Mixtures &amp; Compounds</b>	<i>Autumn</i>	<ul style="list-style-type: none"> <li>Collecting data</li> <li>Analyse patterns</li> <li>Justify opinions</li> <li>Review theories</li> <li>Draw conclusions</li> <li>Make observations</li> <li>Estimate risks</li> <li>Plan variables</li> <li>Test hypotheses</li> <li>Construct explanations</li> <li>Discuss limitations</li> </ul>	<ul style="list-style-type: none"> <li>A simple (Dalton) atomic model</li> <li>Differences between atoms, elements and compounds</li> <li>Chemical symbols and formulae for elements and introduced to the formula for compounds</li> <li>The varying physical and chemical properties of different elements</li> <li>The principles underpinning the Mendeleev periodic table</li> <li>The periodic table: periods and groups; metals and non-metals</li> <li>How patterns in reactions can be predicted with reference to the periodic table</li> <li>The properties of metals and non-metals</li> <li>The concept of a pure substance</li> <li>Mixtures, including dissolving</li> <li>Simple techniques for separating mixtures: filtration,</li> </ul>	<ul style="list-style-type: none"> <li>Y8 Spring: <b>Chemical Reactions</b></li> </ul>	<p>Links to GCSE Topic 1 – <b>Atomic structure &amp; the Periodic Table</b></p> <p><b>Year 9:</b></p> <ul style="list-style-type: none"> <li>Atomic structure</li> <li>Atoms, Elements, Mixtures &amp; Compounds</li> <li>Development of the periodic table</li> <li>Trends in group 1, 7, &amp; 0</li> <li>Properties of alkali vs transition metals</li> <li>Separating mixtures</li> </ul> <p>Links to GCSE Topic 8 – <b>Chemical Analysis</b></p> <p><b>Year 10:</b></p> <ul style="list-style-type: none"> <li>Pure and impure substances</li> </ul>



			<p>evaporation, distillation and chromatography</p> <ul style="list-style-type: none"> <li>The identification of pure substances</li> </ul>		
<b>Chemical Reactions</b>	<i>Spring</i>	<ul style="list-style-type: none"> <li>Estimating risks</li> <li>Test hypotheses</li> <li>Collecting data</li> <li>Presenting data</li> <li>Draw conclusions</li> <li>Constructing explanations</li> <li>Justifying opinions</li> <li>Draw conclusions</li> <li>Construct explanations</li> </ul>	<ul style="list-style-type: none"> <li>The chemical properties of metal and non-metal oxides with respect to acidity</li> <li>Chemical reactions as the rearrangement of atoms</li> <li>Representing chemical reactions using formulae and using equations</li> <li>Conservation of mass changes of state and chemical reactions</li> <li>Combustion, thermal decomposition, oxidation and displacement reactions</li> <li>Exothermic and endothermic chemical reactions</li> <li>Reactions of acids with metals to produce a salt plus hydrogen</li> <li>What catalysts do</li> <li>The tests for oxygen, carbon dioxide and hydrogen gas</li> </ul>	<ul style="list-style-type: none"> <li>Y8 Summer: <b>Earth &amp; Environments</b></li> </ul>	<p>Links to GCSE Topic 3 – <b>Quantitative Chemistry</b> <b>Year 11:</b></p> <ul style="list-style-type: none"> <li>Conservation of mass</li> </ul> <p>Links to GCSE Topic 4 – <b>Chemical Changes</b> <b>Year 9:</b></p> <ul style="list-style-type: none"> <li>Reactions of metals and acids</li> </ul> <p><b>Year 11:</b></p> <ul style="list-style-type: none"> <li>Strong and weak acids</li> <li>Titration</li> </ul> <p>Links to GCSE Topic 5 – <b>Energy Changes</b> <b>Year 11:</b></p> <ul style="list-style-type: none"> <li>Endothermic and Exothermic reactions</li> <li>Catalysts</li> </ul> <p>Links to GCSE Topic 8 – <b>Chemical Analysis</b> <b>Year 10:</b></p> <ul style="list-style-type: none"> <li>Testing for gases</li> </ul> <p>Links to GCSE Topic 9 –</p>



					<b>Year 10:</b> <b>Chemistry of the Atmosphere</b> <ul style="list-style-type: none"><li>• Combustion</li></ul>
<b>The Earth &amp; Environment</b>	<i>Summer</i>	•	•	•	Links to GCSE Topic 1 –