



### Curriculum Overview for Chemistry

#### Year 11 Set 3 and 4

<p><b>Half Term 3: Organic chemistry/</b></p> <p><b>Substantive Knowledge:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe how crude oil is formed</li> <li><input type="checkbox"/> Identify alkanes</li> <li><input type="checkbox"/> Identify the general formula for an alkane</li> <li><input type="checkbox"/> Describe fractional distillation.</li> <li><input type="checkbox"/> Describe the properties of hydrocarbons.</li> <li><input type="checkbox"/> Explain the properties of hydrocarbons.</li> <li><input type="checkbox"/> Describe cracking.</li> <li><input type="checkbox"/> Explain why we do cracking.</li> <li><input type="checkbox"/> Compare the reactivity of alkanes and alkenes.</li> </ul> <p><b>Disciplinary Knowledge:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Identify alkenes.</li> <li><input type="checkbox"/> Identify the general formula for an alkene and alkane.</li> </ul> <p><b>Using resources</b></p> <p><b>Substantive Knowledge:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Define potable water</li> <li><input type="checkbox"/> Define LCA</li> </ul> <p><b>Disciplinary Knowledge</b></p> <ul style="list-style-type: none"> <li>▪ <b>Compare LCA for plastic and paper bags.</b></li> </ul>		Skim and Scan of source information Decoding terms Etymology of key terms
		Alkanes, Alkenes, Catalytic cracking, Combustion, Complete combustion, Crude oil, Cracking, Fractional distillation, Homologous series, Hydrocarbons, Steam cracking
		Baseline Recall questions to start every lesson End of unit assessment
		Revision Card preparation for every lesson Repetition of use of revision cards for end of unit assessment Exam questions - application
<p><b>Half Term 4: Using resources</b></p> <p><b>Substantive Knowledge:</b></p> <ul style="list-style-type: none"> <li>▪ <b>Describe how to test for pure water.</b></li> <li>▪ <b>Describe how to make potable water</b></li> <li>▪ <b>Describe ease of obtaining potable water from waste, ground and salt water.</b></li> <li>▪ <b>Evaluate ways of reducing the use of limited resources.</b></li> </ul> <p><b>Disciplinary Knowledge:</b></p> <ul style="list-style-type: none"> <li>▪ <b>Evaluate ways of reducing the use of limited resources.</b></li> </ul>		Skim and Scan of source information Decoding terms Etymology of key terms
		Alloy Composite Corrosion Desalination Displacement Finite resources Ground water Life cycle assessment (LCA) Potable water Raw materials Renewable resources Sterilisation Sustainable development
		Baseline Recall questions to start every lesson End of unit assessment
		Revision Card preparation for every lesson Repetition of use of revision cards for end of unit assessment Exam questions - application