

<h1>Year 11</h1> <p>Chemistry</p>			
1	<ul style="list-style-type: none"> <li>SC7b Describe ways of speeding up or slowing down chemical reactions. Describe what a catalyst is. Describe the difference between exothermic and endothermic reactions.</li> </ul>	<ul style="list-style-type: none"> <li>SC7b Explain why changes in temperature, concentration, surface area and pressure affect the rate of reaction (surface area for solids, pressure for gases only). Explain how catalysts speed up chemical reactions. Describe exothermic and endothermic reactions in terms of energy changes when bonds are broken and formed.</li> </ul>	<ul style="list-style-type: none"> <li>SC7b Use collision theory to explain why changes in temperature, concentration, surface area and pressure affect the rate of reaction (surface area for solids, pressure for gases only). Evaluate the use of catalysts to speed up chemical reactions. Explain exothermic and endothermic reactions in terms of energy changes when bonds are broken and formed.</li> </ul>
2	<ul style="list-style-type: none"> <li>SC8a Describe how hydrocarbons including alkanes and alkenes are produced from crude oil by fractional distillation and cracking. Describe the pollutants produced from combustion of fuels and some problems they cause.</li> </ul>	<ul style="list-style-type: none"> <li>SC8a Explain how hydrocarbons including alkanes and alkenes are produced from crude oil by fractional distillation and cracking. Explain how different pollutants produced from the combustion of fuels cause problems to health and the environment.</li> </ul>	<ul style="list-style-type: none"> <li>SC8a Explain how hydrocarbons including alkanes and alkenes are produced from crude oil by fractional distillation and cracking. Evaluate the combustion reactions of fuels and the effect they have on health and the environment.</li> </ul>
3	<ul style="list-style-type: none"> <li>SC8b Describe how the Earth's early atmosphere was formed and how the composition of the atmosphere has changed naturally over time. Describe the effects of human activity on the composition of gases in the atmosphere.</li> </ul>	<ul style="list-style-type: none"> <li>SC8b Explain how the Earth's early atmosphere was formed and how changes result in the current atmosphere. Describe the projected effects of climate change and how the potential harmful effects of climate change can be addressed and limited."</li> </ul>	<ul style="list-style-type: none"> <li>SC8b Draw conclusions from evidence about the composition of the early atmosphere. Evaluate the evidence for increased atmospheric greenhouse gas concentrations being part of the cause of global warming and climate change. Explain the projected effects of climate change and how the potential harmful effects of climate change can be addressed and limited.</li> </ul>
4	<ul style="list-style-type: none"> <li>SC9 Describe the names, formulas and structures of alkanes, alkenes, alcohols and carboxylic acids. Describe the properties and reactions of some members of each group. Describe the production, use and potential problems with polymers and plastics.</li> </ul>	<ul style="list-style-type: none"> <li>SC9 Explain how the structures of alkanes, alkenes, alcohols and carboxylic acids affect the properties and reactions of some members of each group. Explain the production, use and potential problems with polymers and plastics.</li> </ul>	<ul style="list-style-type: none"> <li>SC9 Explain how the structures of alkanes, alkenes, alcohols and carboxylic acids affect the properties and reactions of some members of each group. Evaluate the production, use and potential problems with polymers and plastics.</li> </ul>
5	<ul style="list-style-type: none"> <li>SC10 Describe the use of flame tests and wet chemical techniques to identify some cations and anions. Describe the use of different materials for different applications including the use of ceramics, composites and nanomaterials.</li> </ul>	<ul style="list-style-type: none"> <li>SC10 Explain how flame tests, wet chemical techniques and instrumental analysis can be used to identify cations and anions. Explain the use of different materials for different applications including the use of ceramics, composites and nanomaterials.</li> </ul>	<ul style="list-style-type: none"> <li>SC10 Explain how flame tests, wet chemical techniques and instrumental analysis can be used to identify cations and anions. Evaluate the use of different materials for different applications including the use of ceramics, composites and nanomaterials.</li> </ul>