

Prior Learning				
Lesson Number	AQA Spec	Title	Content	Assessment/ Homework
1	4.5.1.1 4.5.1.2 4.5.1.3	<b>Key concept: Endothermic and exothermic reaction</b>	<ul style="list-style-type: none"> <li>Explore the temperature changes produced by chemical reactions.</li> <li>Consider how reactions are used to heat or cool their surrounding.</li> <li>Investigate how these temperature changes can be controlled.</li> </ul>	
2.		<b>Required practical: investigate the variables that affect temperature changes in reacting solutions, such as acids plus metals, acids plus carbonates, neutralisations, displacement of metals</b>	Devise a hypothesis. <ul style="list-style-type: none"> <li>Devise an investigation to test your hypothesis.</li> <li>Decide whether the evidence supports your hypothesis.</li> <li>Recap all general equations from C4</li> </ul>	<b>Assessment:</b>  <b>Teacher marked</b>  <b>Exampro questions linked to required practical</b>
3	4.5.1.2	<b>Reaction profiles</b>	<ul style="list-style-type: none"> <li>Use diagrams to show the energy changes during reactions.</li> <li>Show the difference between exothermic and endothermic reactions using energy profiles.</li> <li>Find out why many reactions start only when energy or a catalyst is added.</li> </ul>	
<b>4 Higher tier only</b>	4.4.1.3	<b>Energy change of reactions</b>	<ul style="list-style-type: none"> <li>Identify the bonds broken and formed during a chemical reaction.</li> <li>Consider why some reactions are exothermic and others are endothermic.</li> <li>Use bond energies to calculate overall energy changes.</li> </ul>	<b>Assessment:</b>  25-mark quiz  Self-assessed

<b>5 TRIPLE ONLY</b>	4.5.2.1	<b>Cells and batteries</b>	<ul style="list-style-type: none"><li>• Make simple cells and measure their voltages.</li><li>• Consider the importance of cells and batteries.</li><li>• Find out how larger voltages can be produced</li></ul>	
<b>6 TRIPLE ONLY</b>	4.5.2.2	<b>Fuel cells</b>	<ul style="list-style-type: none"><li>• Find out how fuel cells work.</li><li>• Compare and contrast the uses of hydrogen fuel cells, batteries and rechargeable cells.</li><li>• Learn what reactions take place inside hydrogen fuel cells.</li></ul>	
<b>7</b>	4.3.1.4	<b>Chemical measurements and uncertainty</b>	<ul style="list-style-type: none"><li>• Explore ideas about the accuracy of measurements.</li><li>• Consider how closely measurements reflect true values.</li><li>• Consider uncertainties of equipment and measurements</li><li>• Calculate percentage uncertainty</li></ul>	
<b>End of Unit test</b>				
<b>Where we will use these ideas again</b>				