

## Year 10 Chemistry Combined Learning Programme 5

<p>The LORIC skill focus for this LP is: COMMUNICATION.</p> <p>The Moral Virtues focus for this LP are: COURAGE and HUMILITY.</p> <p>Courage - Acting with bravery and overcoming fears.</p> <p>Humility - Having a modest view of oneself.</p> <p><b>What will I be learning about in this Learning Programme?</b> We are learning how metals react and can be extracted. We are also learning how acids react with different bases and the products they form.</p> <p><b>Where have I seen this learning before?</b> KS3 - Acids and Alkalis. Also builds on the ionic bonding topic from LP4.</p> <p><b>What could I use it for?</b> Redox reactions and energy changes at KS5.</p>		<p><b>Literacy:</b></p> <ul style="list-style-type: none"> <li>Capital letters must be used at the start of sentences and for the first letter of proper nouns</li> <li>Full stops must be used at the end of a sentence</li> <li>Question marks must be used at the end of a question</li> <li>Apostrophes should only be used for possession or omission</li> <li>Days of the week and months must be spelled correctly</li> <li>Key words must be spelled correctly</li> </ul>
<p><b>In LP5.1, I will know:</b> 13/05/24 - (WK 1)</p> <p>how to explain how metals and acids react with each other and the names of the different products formed; how to formulate ionic equations.</p>	<p><b>Key Vocabulary</b></p> <p>Neutralisation</p>	<p><b>Homework</b></p> <p>Retrieval questions based on LP4</p>
<p><b>In LP5.2, I will know:</b> 20/05/24 - (WK 2)</p> <p>how to construct half equations that show oxidation and reduction in different species; how acids and bases react with each other and the variety of products formed; how to write the reaction between acids and bases using ionic formula.</p>	<p><b>Key Vocabulary</b></p> <p>Base</p>	<p><b>Homework</b></p> <p>PPQ based on metals and acids</p>
<p><b>In LP5.3, I will know:</b> 03/06/24 - (WK 1)</p> <p>how to conduct the practical - Preparation of a pure, dry sample of a soluble salt from an insoluble oxide or carbonate, using a Bunsen burner to heat dilute acid and a water bath or electric heater to evaporate the solution.</p> <p>Extended Task.</p>	<p><b>Key Vocabulary</b></p> <p>Soluble</p>	<p><b>Homework</b></p> <p>Retrieval questions based on half equations</p>
<p><b>In LP5.4, I will know:</b> 10/06/24 - (WK 2)</p> <p>how to explain the difference between strong and weak acids; how to use the pH scale to describe the difference between strong and weak acids; how to explain the difference between strong and weak acids based on [H<sup>+</sup>] concentration.</p>	<p><b>Key Vocabulary</b></p> <p>Concentration</p>	<p><b>Homework</b></p> <p>PPQ based on the required practical</p>
<p><b>In LP5.5, I will know:</b> 17/06/24 - (WK 1)</p> <p>how to explain the process of electrolysis; how electrolysis occurs in molten compounds and in solutions.</p>	<p><b>Key Vocabulary</b></p> <p>Electrolysis</p>	<p><b>Homework</b></p> <p>Retrieval questions based on pH scale and acid concentration</p>
<p><b>In LP5.6, I will know:</b> 24/06/24 - (WK 2)</p> <p>how electrolysis of aluminium oxide occurs; how to conduct the required practical - Investigate what happens when aqueous solutions are electrolysed using inert electrodes. This should be an investigation involving developing a hypothesis.</p> <p>Extended Task.</p>	<p><b>Key Vocabulary</b></p> <p>Electrodes</p>	<p><b>Homework</b></p> <p>PPQ based on electrolysis</p>
<p><b>In LP5.7, I will know:</b> 01/07/24 - (WK 1)</p> <p>how to explain the difference between endothermic and exothermic reactions; how to conduct the calorimetry required practical.</p>	<p><b>Key Vocabulary</b></p> <p>Exothermic</p>	<p><b>Homework</b></p> <p>Retrieval questions based on the required practical</p>
<p><b>In LP5.8, I will know:</b> 08/07/24 - (WK 2)</p> <p>how to write reaction profiles for exothermic and endothermic reactions; how to calculate exothermic and endothermic reactions using bond enthalpies.</p>	<p><b>Key Vocabulary</b></p> <p>Endothermic</p>	<p><b>Homework</b></p> <p>PPQ based on exothermic and endothermic reactions.</p>
<p><b>Resources to support learning:</b> Resource booklet, Knowledge organiser, BBC GCSE Bitesize, Free GCSE Science videos on YOUTUBE. COGNITO Science</p>		
<p><b>FFET Award Challenge for this Learning Programme:</b> LP5 Year 10 Science: Create a revision resource on a topic of your choice</p>		

PRT Task 1

PRT Task 2