

Year 10 Chemistry Learning Programme 4

<p>The LORIC skill focus for this LP is: INITIATIVE.</p> <p>The Moral Virtues focus for this LP are: INTEGRITY and GRATITUDE.</p> <p>Integrity - Having strong moral principles.</p> <p>Gratitude - Feeling and expressing thanks.</p> <p>What will I be learning about in this Learning Programme? 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>Where have I seen this learning before? KS3 - Acids and Alkalis Also builds on the ionic bonding topic from LP2</p> <p>What could I use it for? Redox reactions and energy changes at KS5</p>		<p>Literacy:</p> <ul style="list-style-type: none"> • Capital letters must be used at the start of sentences and for the first letter of proper nouns • Full stops must be used at the end of a sentence • Question marks must be used at the end of a question • Apostrophes should only be used for possession or omission • Days of the week and months must be spelled correctly • Key words must be spelled correctly
<p>In LP4.1, I will know:</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>04/03/24 - (WK 1)</p> <p>Key Vocabulary</p> <p>Neutralisation</p>	<p>Homework</p> <p>Retrieval questions based on LP3</p>
<p>In LP4.2, I will know:</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>11/03/24 - (WK 2)</p> <p>Key Vocabulary</p> <p>Base</p>	<p>Homework</p> <p>PPQ based on metals and acids</p>
<p>In LP4.3, I will know:</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>18/03/24 - (WK 1)</p> <p>Key Vocabulary</p> <p>Soluble</p>	<p>Homework</p> <p>Retrieval questions based on half equations</p>
<p>In LP4.4, I will know:</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⁺] concentration</p>	<p>25/03/24 - (WK 2)</p> <p>Key Vocabulary</p> <p>Concentration</p>	<p>Homework</p> <p>PPQ based on the required practical</p>
<p>In LP4.5, I will know:</p> <p>how to explain the process of electrolysis; how electrolysis occurs in molten compounds and in solutions.</p>	<p>15/04/24 - (WK 1)</p> <p>Key Vocabulary</p> <p>Electrolysis</p>	<p>Homework</p> <p>Retrieval questions based on pH scale and acid concentration</p>
<p>In LP4.6, I will know:</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>22/04/24 - (WK 2)</p> <p>Key Vocabulary</p> <p>Electrodes</p>	<p>Homework</p> <p>PPQ based on electrolysis</p>
<p>In LP4.7, I will know:</p> <p>how to explain the difference between endothermic and exothermic reactions; how to conduct the calorimetry required practical.</p>	<p>29/04/24 - (WK 1)</p> <p>Key Vocabulary</p> <p>Exothermic</p>	<p>Homework</p> <p>Retrieval questions based on the required practical</p>
<p>In LP4.8, I will know:</p> <p>how to write reaction profiles for exothermic and endothermic reactions.</p>	<p>06/05/24 - (WK 2)</p> <p>Key Vocabulary</p> <p>Endothermic</p>	<p>Homework</p> <p>PPQ based on exothermic and endothermic reactions.</p>
<p>Resources to support learning: Resource booklet, Knowledge organiser, BBC GCSE Bitesize, Free GCSE Science videos on YOUTUBE. COGNITO Science</p>		
<p>FFET Award Challenge for this Learning Programme: LP4 Year 10 Science: Create a revision resource on a topic of your choice</p>		

PRT Task 1

PRT Task 2