

Year 12 Chemistry Teacher 1 Learning Programme 4

<p>The LORIC skill focus for his 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? How to produce new organic substances from substitution and addition reactions. The properties and reactions of alcohols and halogenoalkanes. How to synthesize a organic liquid.</p> <p>Where have I seen this learning before? Organic functional groups from LP3</p> <p>What could I use it for? Yr13 further study of organic reactions and functional groups</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: 04/03/24 - (WK 1)</p> <p>the polarity of alcohols and explain, in terms of hydrogen bonding, the water solubility and the relatively low volatility of alcohols compared with alkanes; how to explain the oxidation of alcohols by an oxidising agent.</p>	<p>Key Vocabulary</p> <p>Polarity</p>	<p>Homework</p> <p>Alcohols practice questions</p>
<p>In LP4.2, I will know: 11/03/24 - (WK 2)</p> <p>how to describe the hydrolysis of haloalkanes in a substitution reactions; how to describe the mechanism of nucleophilic substitution in halogenoalkane reactions.</p>	<p>Key Vocabulary</p> <p>Substitution reaction</p>	<p>Homework</p> <p>Halogen alkanes practice questions</p>
<p>In LP4.3, I will know: 18/03/24 - (WK 1)</p> <p>how to explain the production of halogen radicals by the action of ultraviolet (UV) radiation on CFCs in the upper atmosphere and the resulting catalysed breakdown of the Earth's protective ozone layer; the techniques and procedures for use of Quickfit apparatus including for distillation and heating under reflux.</p> <p>Extended Task.</p>	<p>Key Vocabulary</p> <p>Radical</p>	<p>Homework</p> <p>Organic techniques practice questions</p>
<p>In LP4.4, I will know: 25/03/24 - (WK 2)</p> <p>how to describe the preparation and purification of an organic liquid PAG; how to describe an organic molecule containing several functional groups and make a prediction for it's properties and reactions.</p>	<p>Key Vocabulary</p> <p>Organic synthesis</p>	<p>Homework</p> <p>Organic liquid PAG write up</p>
<p>In LP4.5, I will know: 15/04/24 - (WK 1)</p> <p>how to describe an organic molecule containing several functional groups two-stage synthetic routes for preparing organic compounds.</p>	<p>Key Vocabulary</p> <p>Synthetic routes</p>	<p>Homework</p> <p>Organic synthesis practice questions</p>
<p>In LP4.6, I will know: 22/04/24 - (WK 2)</p> <p>how to describe an organic molecule containing several functional groups two-stage synthetic routes for preparing organic compounds.</p> <p>Extended Task.</p>	<p>Key Vocabulary</p> <p>Synthetic routes</p>	<p>Homework</p> <p>Organic synthesis practice questions</p>
<p>In LP4.7, I will know: 29/04/24 - (WK 1)</p> <p>how to use a mass spectrum of an organic compound to identify the molecular ion peak and hence to determine molecular mass; how to interpret and predict an infrared spectrum of familiar or unfamiliar substances using supplied data.</p>	<p>Key Vocabulary</p> <p>Mass spectrum</p>	<p>Homework</p> <p>Mass Spectrum practice questions</p>
<p>In LP4.8, I will know: 06/05/24 - (WK 2)</p> <p>how to interpret and predict an infrared spectrum of familiar or unfamiliar substances using supplied data.</p>	<p>Key Vocabulary</p> <p>Infrared spectra</p>	<p>Homework</p> <p>Infra red spectrum practice questions</p>
<p>Resources to support learning: Textbook, Physics and maths tutor.com, Microsoft TEAMS, Machem guy- YouTube</p>		
<p>FFET Award Challenge for this Learning Programme: LP4 Year 12 Chemistry: Complete three independent learning tasks and evaluate how they have helped you</p>		

PRT Task 1

PRT Task 2