

## Year 12 Applied Science SRS

### Learning Programme 3

<p>The LORIC skill focus for his LP is: RESILIENCE The Moral Virtues focus for this LP are: RESPECT and JUSTICE</p> <p>Respect - treat others how you would wish to be treated yourself. Justice - our College rules are fair and reasonable.</p> <p><b>What will I be learning about in this Learning Programme?</b> You are learning about different properties of chemicals and why these different properties are present, as well as the characteristics of waves.</p> <p><b>Where have I seen this learning before?</b> You will have learnt about the Periodic Table in GCSE Chemistry and about waves in GCSE Physics.</p> <p><b>What could I use it for?</b> You will use this knowledge again if you study a BSc (Hons) in Chemistry or do an apprenticeship as a communications engineer.</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>
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<b>In LP3.1, I will know:</b>	<b>06/01/25 - (WK 2)</b>	<b>Key Vocabulary</b>	<b>Homework</b>
describe and explain different types of intermolecular forces; write and balance symbol equations.		intermolecular	Exam practice on writing balanced equations.

<b>In LP3.2, I will know:</b>	<b>13/01/25 - (WK 1)</b>	<b>Key Vocabulary</b>	<b>Homework</b>
use balanced symbol equations to work out moles, molar masses and molarities; calculate empirical formula.		empirical	Calculations on empirical formula.

<b>In LP3.3, I will know:</b>	<b>20/01/25 - (WK 2)</b>	<b>Key Vocabulary</b>	<b>Homework</b>
calculate reaction quantities and yield; the organisation of the Periodic Table.		yield	Calculations on reaction quantities and yield.

<b>In LP3.4, I will know:</b>	<b>27/01/25 - (WK 1)</b>	<b>Key Vocabulary</b>	<b>Homework</b>
atoms by atomic and ionic radius; trends in electronegativity, ionisation energy, electron affinity, melting and boiling points.		electronegativity	Exam questions on atoms.
Extended Task.			

<b>In LP3.5, I will know:</b>	<b>03/02/25 - (WK 2)</b>	<b>Key Vocabulary</b>	<b>Homework</b>
the products of reactions of metals with oxygen, water, hydrochloric and sulphuric acid; my strengths and areas for development for my learning so far.		neutralisation	Exam questions on neutralisation.

<b>In LP3.6, I will know:</b>	<b>10/02/25 - (WK 1)</b>	<b>Key Vocabulary</b>	<b>Homework</b>
metals in order of reactivity and explain the trends; how to write half equations for oxidation and reduction reactions and LINK to the oxidative states of transition metal ions.		reactivity	Exam practice on reactivity and trends.

<b>LP3 RLW, I will:</b>	<b>24/02/25 - (WK 2)</b>		
review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.			Review learning task.

<b>In LP3.7, I will know:</b>	<b>03/03/25 - (WK 1)</b>	<b>Key Vocabulary</b>	<b>Homework</b>
displacement reactions in metals and halogens; oscillations, periods, amplitude, wavelength and frequency using graphical representations of wave formation.		displacement	Exam questions on displacement.
Extended Task.			

<b>Resources to support learning:</b>	<a href="https://www.youtube.com/watch?v=vkdmZb4cqmw">https://www.youtube.com/watch?v=vkdmZb4cqmw</a> Knowledge organiser, Synergy.		
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<b>FFET Award Challenge for this Learning Programme:</b>	LP3 Year 12 Science: Complete three independent learning tasks and evaluate how they have helped you.		
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