

# Year 12 Mathematics

## Learning Programme 5

<p>The LORIC skill focus for his LP is: COMMUNICATION. The Moral Virtues focus for this LP are: COURAGE and HUMILITY.</p> <p>Courage - Acting with bravery and overcoming fears. Humility - Having a modest view of oneself.</p> <p><b>What will I be learning about in this Learning Programme?</b> In LP5.1 I will be learning about integration, proof, functions and algebraic fractions.</p> <p><b>Where have I seen this learning before?</b> GCSE: functions, algebraic fractions</p> <p><b>What could I use it for?</b> The knowledge and skills I will learn in this learning programme will allow me to solve advanced algebraic problems. This knowledge will later be applied to advanced calculus.</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></p> <p>how to find the area under a curve with integration; how to find the area under the x-axis curve with integration; how to find the area between curves and lines with integration.</p>	<p>11/05/26 - (WK 1)</p>	<p><b>Key Vocabulary</b></p> <p>Integral</p>	<p><b>Homework</b></p> <p>Exam Practice</p>
<p><b>In LP5.2, I will know:</b></p> <p>how to solve problems with vectors in Mechanics; how to solve problems with the constant acceleration formulae.</p>	<p>18/05/26 - (WK 2)</p>	<p><b>Key Vocabulary</b></p> <p>Magnitude</p>	<p><b>Homework</b></p> <p>Exam Practice</p>
<p><b>LP5 RLW, I will:</b></p> <p>review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.</p>	<p>01/06/26 - (WK 1)</p>		
<p><b>In LP5.3, I will know:</b></p> <p>how to solve problems with position vectors; how to solve geometrical problems with vectors.</p> <p>Extended Task.</p>	<p>08/05/26 - (WK 2)</p>	<p><b>Key Vocabulary</b></p> <p>Parallel</p>	<p><b>Homework</b></p> <p>Exam Practice</p>
<p><b>In LP5.4, I will know:</b></p> <p>how to form an algebraic proof by contradiction; how to manipulate algebraic fractions.</p>	<p>15/06/26 - (WK 1)</p>	<p><b>Key Vocabulary</b></p> <p>Contradiction</p>	<p><b>Homework</b></p> <p>Exam Practice</p>
<p><b>In LP5.5, I will know:</b></p> <p>how to use partial fractions including with repeated factors; how to solve algebraic division problems.</p>	<p>22/06/26 - (WK 2)</p>	<p><b>Key Vocabulary</b></p> <p>Factor</p>	<p><b>Homework</b></p> <p>Exam Practice</p>
<p><b>In LP5.6, I will know:</b></p> <p>how to use the modulus function; how to represent functions including using mappings.</p> <p>Extended Task.</p>	<p>29/06/26 - (WK 1)</p>	<p><b>Key Vocabulary</b></p> <p>Modulus</p>	<p><b>Homework</b></p> <p>Exam Practice</p>
<p><b>In LP5.7, I will know:</b></p> <p>how to solve problems with forces in equilibrium; how to solve problems with forces and motion.</p>	<p>06/06/26 - (WK 2)</p>	<p><b>Key Vocabulary</b></p> <p>Equilibrium</p>	<p><b>Homework</b></p> <p>Exam Practice</p>
<p><b>Resources to support learning:</b> Use your knowledge organisers to support with revision and recall. Here are some online resources to further support you in your Mathematics revision beyond the classroom. All weekly homework tasks are based on the exercises from the book. In addition to homework, Pupils should use questions not used in class plus the review exercises to help support learning from outside the classroom. Online Resource for homework and exam practice: <a href="https://www.drfrstmths.com/">https://www.drfrstmths.com/</a>. Topic based exam questions - <a href="https://www.mathsgenie.co.uk/">https://www.mathsgenie.co.uk/</a></p>			
<p><b>FFET Award Challenge for this Learning Programme:</b> Choose three potential career options and identify the areas of Mathematics you would use in those careers. Represent this as presentation or poster.</p>			

