

Year 13 Mathematics Teacher 1

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>What will I be learning about in this Learning Programme? In LP3 I will be learning about differentiation and integration.</p> <p>Where have I seen this learning before? Year 12: polynomial differentiation and integration.</p> <p>What could I use it for? The knowledge and skills I will learn in this learning programme will allow me to solve calculus problems. These skills will later be applied to kinematics problems which are useful in careers such as engineering.</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 LP3.1, I will know:</p> <p>how to use the quotient rule for differentiation; how to differentiate trigonometric functions; how to differentiate parametric equations.</p>	<p>06/01/25 - (WK 2)</p> <p>Quotient</p>	<p>Key Vocabulary</p> <p>Homework</p> <p>Quotient Rule</p>
<p>In LP3.2, I will know:</p> <p>how to differentiate implicitly; how to use second derivatives; how to solve rates of change problems.</p>	<p>13/01/25 - (WK 1)</p> <p>Implicit</p>	<p>Key Vocabulary</p> <p>Homework</p> <p>Second Derivatives</p>
<p>In LP3.3, I will know:</p> <p>how to integrate non-polynomial functions; how to integrate functions of the form $f(ax+b)$.</p>	<p>20/01/25 - (WK 2)</p> <p>Integral</p>	<p>Key Vocabulary</p> <p>Homework</p> <p>Integration 1</p>
<p>In LP3.4, I will know:</p> <p>how to integrate with trigonometric identities; how to use the chain rule in reverse; how to integrate by substitution.</p> <p>Extended Task.</p>	<p>27/01/25 - (WK 1)</p> <p>Identity</p>	<p>Key Vocabulary</p> <p>Homework</p> <p>Integration 2</p>
<p>In LP3.5, I will know:</p> <p>how to integrate by parts; how to integrate partial fractions.</p>	<p>03/02/25 - (WK 2)</p> <p>Partial Fraction</p>	<p>Key Vocabulary</p> <p>Homework</p> <p>Integration by Parts</p>
<p>In LP3.6, I will know:</p> <p>how to use integration to find areas; how to use the trapezium rule; how to work with differential equations.</p>	<p>10/02/25 - (WK 1)</p> <p>Differential Equation</p>	<p>Key Vocabulary</p> <p>Homework</p> <p>Trapezium Rule</p>
<p>LP2 RLW, I will:</p> <p>review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.</p>	<p>24/02/25 - (WK 2)</p>	<p>Key Vocabulary</p> <p>Homework</p> <p>Exam Paper</p>
<p>In LP3.7, I will know:</p> <p>how to represent integration as the limit of a sum; how to integrate parametric equations.</p> <p>Extended Task.</p>	<p>03/03/25 - (WK 1)</p> <p>Limit</p>	<p>Key Vocabulary</p> <p>Homework</p> <p>Integration 3</p>
<p>Resources to support learning:</p> <p>Pupils have access to knowledge organisers and Sparx Maths to further support them in their Mathematics revision beyond the classroom. All weekly homework tasks will be set on Sparx Maths and all questions have a video to support. Pupils can access any topic in the Independent Practice section on Sparx Maths. Sparx Maths has been introduced to the pupils by their teachers and their login details should be written in their planner.</p>		
<p>FFET Award Challenge for this Learning Programme:</p> <p>Complete a Maths exam paper from Maths Genie independently.</p>		

PRT Task 1

PRT Task 2