

## Year 11 Mathematics - Set 1

### Learning Programme 4

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| <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><b>What will I be learning about in this Learning Programme?</b><br/>In LP4 I will be learning about functions, quadratic equations, proof and equation of a circle.</p> <p><b>Where have I seen this learning before?</b><br/>Year 10: Quadratics where <math>a=1</math>, conjectures, graphs and straight line graphs.</p> <p><b>What could I use it for?</b><br/>The knowledge and skills I will learn in this learning programme will allow me to solve advanced algebraic problems.</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 LP4.1, I will know:</b>   | <b>04/03/24 - (WK 1)</b> | <b>Key Vocabulary</b> | <b>Homework</b> |
| how to sketch and identify translations of a given function;<br>how to sketch and identify reflections of a given function. |                          | Function              | Exam Practice   |

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| <b>In LP4.2, I will know:</b>  | <b>11/03/24 - (WK 2)</b> | <b>Key Vocabulary</b> | <b>Homework</b> |
| how to use function notation;<br>how to use composite functions;<br>how to find inverse functions. |                          | Composite             | Exam Practice   |



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| <b>In LP4.3, I will know:</b>  | <b>18/03/24 - (WK 1)</b> | <b>Key Vocabulary</b> | <b>Homework</b> |
| how to solve quadratics by factorisation;<br>how to solve quadratics by completing the square;<br>how to solve quadratics using the quadratic formula. |                          | Quadratic             | Exam Practice   |
| Extended Task.   |                          |                       |                 |

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| <b>In LP4.4, I will know:</b>   | <b>25/03/24 - (WK 2)</b> | <b>Key Vocabulary</b> | <b>Homework</b> |
| how to solve proof problems involving algebra;<br>how to solve proof problems involving geometry. |                          | Proof                 | Exam Practice   |

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| <b>In LP4.5, I will know:</b>  | <b>15/04/24 - (WK 1)</b> | <b>Key Vocabulary</b> | <b>Homework</b> |
| how to solve problems involving the equation of a circle;<br>how to solve problems involving straight lines and circles. |                          | Tangent               | Exam Practice   |



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| <b>In LP4.6, I will know:</b>   | <b>22/04/24 - (WK 2)</b> | <b>Key Vocabulary</b> | <b>Homework</b> |
| how to develop mathematical knowledge through solving problems and evaluating the outcomes, including multi-step problems;<br>how to apply all knowledge to solve exam questions. |                          | Evaluate              | Exam Practice   |
| Extended Task.  |                          |                       |                 |

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| <b>In LP4.7, I will know:</b>   | <b>29/04/24 - (WK 1)</b> | <b>Key Vocabulary</b> | <b>Homework</b> |
| how to develop mathematical knowledge through solving problems and evaluating the outcomes, including multi-step problems;<br>how to apply all knowledge to solve exam questions. |                          | Evaluate              | Exam Practice   |

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| <b>In LP4.8, I will know:</b>   | <b>06/05/24 - (WK 2)</b> | <b>Key Vocabulary</b> | <b>Homework</b> |
| how to develop mathematical knowledge through solving problems and evaluating the outcomes, including multi-step problems;<br>how to apply all knowledge to solve exam questions. |                          |                       | Exam Practice   |

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| <b>Resources to support learning:</b>  |
| Pupils have access to knowledge organisers, Mathswatch, to further support them in their Mathematics revision beyond the classroom. All weekly homework tasks in this learning programme have got appropriate Mathswatch clips to support completion of homework if you need some help. Mathswatch has been introduced to Pupils by their class teacher. The login details are as follows:<br><a href="https://vie.mathswatch.co.uk/vle/">https://vie.mathswatch.co.uk/vle/</a><br>Username: "school username"@epcollege (e.g. 19EA1234@epcollege) Password: ellesmere . |

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| <b>FFET Award Challenge for this Learning Programme:</b>              |
| Create a revision mind map/poster for Algebra, Number, Shape or Data. |