

## Year 10 Mathematics Learning Programme 3

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| <p>The LORIC skill focus for his LP is: RESILIENCE<br/>The Moral Virtues focus for this LP are: RESPECT and JUSTICE</p> <p>Respect - treat others how you would wish to be treated yourself.<br/>Justice - our College rules are fair and reasonable.</p> <p><b>What will I be learning about in this Learning Programme?</b><br/>In LP3 I will be learning about non-linear graphs, velocity-time graphs, compound measures, ratio, proportion and probability.</p> <p><b>Where have I seen this learning before?</b><br/>Year 9: sharing in a ratio, worded proportion, <math>y=mx+c</math>, speed, Venn diagrams.</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 problems involving speed, density and pressures. I will also be able to apply algebra knowledge to describe features of real-life graphs including velocity-time graphs.</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 LP3.1, I will know:</b> 06/01/25 - (WK 2)</p> <p>how to draw and interpret graphs of cubic functions;<br/>how to draw and interpret graphs of reciprocal functions.</p>   | <p><b>Key Vocabulary</b></p> <p>Cubic</p>             | <p><b>Homework</b></p> <p>LP2:7 Consolidation<br/>Sparx Maths</p>   |
| <p><b>In LP3.2, I will know:</b> 13/01/25 - (WK 1)</p> <p>how to draw and interpret real life graphs;<br/>how to find the equation of a linear real life-graph or section of a graph.</p>  | <p><b>Key Vocabulary</b></p> <p>Gradient</p>          | <p><b>Homework</b></p> <p>LP3:1 Topics plus consolidation<br/>Sparx Maths</p>   |
| <p><b>In LP3.3, I will know:</b> 20/01/25 - (WK 2)</p> <p>how to draw and interpret velocity-time graphs;<br/>how to calculate the gradient (i.e. the acceleration) from a velocity-time graph.</p>  | <p><b>Key Vocabulary</b></p> <p>Acceleration</p>      | <p><b>Homework</b></p> <p>LP3:2 Topics plus consolidation<br/>Sparx Maths</p>   |
| <p><b>In LP3.4, I will know:</b> 27/01/25 - (WK 1)</p> <p>how to calculate with density, mass and volume;<br/>how to calculate with pressure, mass and volume.</p> <p>Extended Task.</p>   | <p><b>Key Vocabulary</b></p> <p>Density</p>           | <p><b>Homework</b></p> <p>LP3:3 Topics plus consolidation<br/>Sparx Maths</p>   |
| <p><b>In LP3.5, I will know:</b> 03/02/25 - (WK 2)</p> <p>how to solve problems with combined ratios;<br/>how to solve ratio and algebra problems;<br/>how to solve ratio problems (including when a ratio changes).</p>   | <p><b>Key Vocabulary</b></p> <p>Ratio</p>             | <p><b>Homework</b></p> <p>LP3:4 Topics plus consolidation<br/>Sparx Maths</p>   |
| <p><b>In LP3.6, I will know:</b> 10/02/25 - (WK 1)</p> <p>how to solve problems with currency conversion;<br/>how to solve 'best buy' problems.</p>  | <p><b>Key Vocabulary</b></p> <p>Direct Proportion</p> | <p><b>Homework</b></p> <p>LP3:5 Topics plus consolidation<br/>Sparx Maths</p>   |
| <p><b>LP2 RLW, I will:</b> 24/02/25 - (WK 2)</p> <p>review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.</p>   | <p><b>Key Vocabulary</b></p>                          | <p><b>Homework</b></p> <p>Sparx Revision Task for Assessment 2</p>  |
| <p><b>In LP3.7, I will know:</b> 03/03/25 - (WK 1)</p> <p>how to find probabilities from tables, Venn diagrams and frequency trees;<br/>how to use set notation;<br/>how to interpret Venn diagrams using set notation.</p> <p>Extended Task.</p>  | <p><b>Key Vocabulary</b></p> <p>Intersection</p>      | <p><b>Homework</b></p> <p>LP3:6 Topics plus consolidation<br/>Sparx Maths</p>   |
| <p><b>Resources to support learning:</b><br/>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><b>FFET Award Challenge for this Learning Programme:</b><br/>Earn 2000 XP points in Sparx Maths from XP Boost tasks, XP Target tasks or Independent Learning tasks.</p>   |   |   |

PRT Task 1

PRT Task 2