



love the journey

## Curriculum Implementation 2024-25

### Secondary

<b>LCA Strand</b>	<b>Maths</b>
<b>Subject</b>	<b>Maths</b>
<b>Key Stage</b>	<b>Key Stage 5 (Chapter 12-13)</b>

What are the key concepts taught?	<ul style="list-style-type: none"> <li>Overarching Themes:             <ul style="list-style-type: none"> <li>Mathematical Argument, language, and proof</li> <li>Mathematical problem solving</li> <li>Mathematical modelling</li> </ul> </li> <li>This is taught via the three main topic areas:             <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Pure Maths</th> <th>Statistics</th> <th>Mechanics</th> </tr> </thead> <tbody> <tr> <td>Algebra</td> <td>Data collection</td> <td>Kinematics</td> </tr> <tr> <td>Trigonometry</td> <td>Data analysis</td> <td>Dynamics</td> </tr> <tr> <td>Calculus</td> <td>Probability &amp; distributions</td> <td>Statics</td> </tr> <tr> <td>Coordinate geometry</td> <td>Hypothesis testing</td> <td>Vectors</td> </tr> <tr> <td>Numerical methods</td> <td></td> <td></td> </tr> </tbody> </table> </li> </ul>	Pure Maths	Statistics	Mechanics	Algebra	Data collection	Kinematics	Trigonometry	Data analysis	Dynamics	Calculus	Probability & distributions	Statics	Coordinate geometry	Hypothesis testing	Vectors	Numerical methods		
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Numerical methods																			

What is the sequencing of units?	<ul style="list-style-type: none"> <li>Pure Maths, Statistics, and Mechanics interleaved throughout the scheme of work but with early emphasis on pure to embed essential skills.</li> <li>GCSE algebraic methods recapped thoroughly at the start of the course since this is threaded through all aspects of the course.</li> <li>Topics covered sequentially so pre-requisites covered prior to next unit.</li> <li>Two/three teachers allow fluidity of sequencing if required.</li> <li>Each sequence of lessons will re-visit the overarching themes.</li> </ul>
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How do we encourage pupils to see the links between different units and concepts?	<ul style="list-style-type: none"> <li>Teachers know the scheme of work and emphasise links between topics covered</li> <li>Key skills are woven throughout the curriculum so that key concepts are revisited.</li> <li>Questioning and retrieval starters are used to link back to, and gauge students' understanding of prior learning.</li> </ul>
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	<ul style="list-style-type: none"> <li>• Each unit includes modelling questions, problem solving, and proof questions, used both in class and for independent study.</li> <li>• Future applications of current topics mentioned in class.</li> </ul>
<p>What are the planned opportunities for adaptive teaching, including for SEND, the more and able and disadvantaged pupils?</p>	<ul style="list-style-type: none"> <li>• Teachers highlight where to look for further reinforcement &amp; support</li> <li>• Extension/challenge questions included in resource booklets</li> <li>• Support out of lessons given by any maths staff not just the class teacher</li> <li>• Targeted intervention and revision lessons</li> <li>• Academic Support Plans put in place when needed</li> <li>• STEP and MAT sessions for those who need them either in school or through Advanced Maths Support Programme.</li> <li>• Individual and team maths challenges e.g. UKMT</li> <li>• Awareness by staff of pupil profiles and/or EHCP, to plan appropriately</li> <li>• Whole school principles of adaptive teaching are followed</li> </ul>
<p>What are the planned opportunities for retrieval and reflection by pupils?</p>	<ul style="list-style-type: none"> <li>• Retrieval starters in every lesson</li> <li>• Regular assessments covering multiple topic areas</li> <li>• Follow up tasks to develop in any weaker areas identified in assessments and/or homework</li> </ul>
<p>What are the opportunities for feed forward by the teacher post assessment outcomes?</p>	<ul style="list-style-type: none"> <li>• All assessment answers are modelled by teachers post assessment</li> <li>• Pupils make a note of the main topic areas for review and use resources provided to do this for homework</li> <li>• Similar questions are presented to students to see if they have improved, often as part of the retrieval starters</li> </ul>
<p>What are the planned opportunities for developing Reading?</p>	<ul style="list-style-type: none"> <li>• Literacy: Recognising, understanding and interpreting mathematical words and command words e.g. series, hence, evaluate. Students to develop sixth form glossary of mathematical symbols &amp; words</li> </ul>
<p>What are the planned opportunities for developing literacy, numeracy, oracy and SMSC?</p>	<ul style="list-style-type: none"> <li>• The overarching theme of modelling lends itself to literacy, oracy and SMSC applications.</li> <li>• e.g.in mechanics, discussion about suitability of modelling assumptions</li> <li>• e.g.in statistics data chosen from relevant modern world real life situations, large data set.</li> <li>• Students encouraged to make links with other curriculum areas.</li> </ul>