

## Curriculum Intent

To become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. To reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language. To ensure that students can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions. The scheme of learning follows the National Curriculum content with well sequenced lessons. It builds on prior attainment and stretches all with depth and breadth of skills and knowledge. The stage 3 and 4 programmed of study is embedded through the scheme of work. Our curriculum shows the national Curriculum progression in the scheme of work from Key stage 2 through to Key Stage 5. Lessons are sequenced, with challenge for the most able students as well as scaffolded support for the low attainers. We have end of block and termly assessments which are differentiated. Scheme of learning includes interleaved review of previous learning, which supports students with gaps in their understanding. Also includes Higher topics to accelerate the more-able and faster-learning pupils.



<b>How is this curriculum assessed at THA?</b>	<b>Cross Curricular Links</b>	<b>How this prepares students for their next stage of education/employment</b>
<p>We use assessment to check for prior knowledge which allows teachers to build on the understanding already embedded. Diagnostic questions are used in every lesson along with white boards to record answers. Teachers are very quickly able to access understanding at any point before moving on. End of unit tests are used to check for recall and summative tests provide levels of attainment. All marking is scrutinized and time given within departments for moderation, to ensure standardisation and reliability of the data.</p>	<p>In Science, mathematics provides the foundation for analysing and modelling qualitative data, enabling scientific investigations. Maths also intersects with art through geometry and patterns. In Geography, with constructing and interpreting graphs.</p>	<p>The Maths curriculum equips students with a broad range of mathematical knowledge, skills and problem-solving strategies that are applicable to their future educational pursuits and professional endeavours. It prepares them to think critically, reason quantitatively and approach challenges with confidence, regardless of their chosen field.</p>
	<b>Enrichment Opportunities</b>	<b>Resources/Materials to Support Learning</b>
	<p>Supported Maths learning after school. UK Maths challenge.</p>	<p><a href="http://www.sparxmaths.com">www.sparxmaths.com</a> for home learning <a href="http://www.corbetsmaths">www.corbetsmaths</a> for additional resources <a href="http://www.mathsonline.com">www.mathsonline.com</a> for free online GCSE papers <a href="http://www.pearsons.com">www.pearsons.com</a> for revision resources</p>

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 7	<b>Topic: Algebraic Thinking</b>	<b>Topic: Place Value and Proportion</b>	<b>Topic: Applications of Number</b>	<b>Topic: Directed Numbers Fractional Thinking</b>	<b>Topic: Lines and Angles</b>	<b>Topic: Reason with Number</b>
	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>Sequences</li> <li>Understand and use algebraic notation</li> <li>Equality and equivalence</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>Place value and ordering integers and decimals</li> <li>Fraction, decimal and percentage equivalence</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>Solving problems with addition and subtraction</li> <li>Solving problems with multiplication and division</li> <li>Fractions and percentages of amounts</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>Operations and equations with directed numbers</li> <li>Addition and subtraction of fractions</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>Constructing, measuring and using geometric notation</li> <li>Developing geometric reasoning</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>Developing number sense</li> <li>Sets and probability</li> <li>Prime numbers and proof</li> </ul>
Year 8	<b>Topic: Proportional Reasoning</b>	<b>Topic: Representations</b>	<b>Topic: Algebraic Techniques</b>	<b>Topic: Developing Number</b>	<b>Topic: Developing Geometry</b>	<b>Topic: Reasoning with Data</b>
	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>Ratio and scale</li> <li>Multiplicative change</li> <li>Multiplying and dividing fractions</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>Working in the Cartesian plane</li> <li>Representing data</li> <li>Tables and Probability</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>Brackets, equations and inequalities</li> <li>Sequences</li> <li>Indices</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>Fractions and percentages</li> <li>Standard index form</li> <li>Number sense</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>Angles in parallel lines and polygon</li> <li>Area of trapezia and circles</li> <li>Line symmetry and reflection</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>The data handling cycle</li> <li>Measures of location</li> </ul>
Year 9	<b>Topic: Reasoning with Algebra</b>	<b>Topic: Constructing in 2 and 3 Dimensions</b>	<b>Topic: Reasoning with Numbers</b>	<b>Topic: Reasoning with Geometry</b>	<b>Topic: Reasoning with Proportion</b>	<b>Topic: Representations and Revision</b>

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>• Straight line graphs</li> <li>• Forming and solving equations</li> <li>• Testing conjectures</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>• Three dimensional shapes</li> <li>• Constructions and Congruency</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>• Numbers</li> <li>• Using Percentages</li> <li>• Maths and Money</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>• Deductions</li> <li>• Rotation and Translation</li> <li>• Pythagoras Theorem</li> <li>• Enlargement and similarity</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>• Ratio and Proportions</li> <li>• Rates</li> </ul>	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>• Probability</li> <li>• Algebraic Representations</li> <li>• Revision</li> </ul>