

# MATHEMATICS

Intent	
What are the aims of this subject?	What are the broad areas of knowledge and skills being developed in this subject?
<p>Mathematics is an essential element of everyday life and mathematical thinking enables students to have a deeper understanding across the curriculum. We deliver maths in a variety of ways which are meaningful and purposeful, in order to empower students with the knowledge and understanding of the fundamentals to make progress in their learning. As student's progress through the school, they learn how to make sense of numbers and patterns in the world around them and discover new connections. They learn to explore and explain their thinking and become more able to manipulate mathematical ideas to be able to solve problems. Students are encouraged to understand the value of maths in different aspects of life, such as economy, culture and society and to know how to use it as a tool to lead them to greater independence. We aim for our students to be confident to recall key facts that support learning in real-life contexts and across different subject areas.</p>	<ul style="list-style-type: none"><li>1 Number</li><li>2 Algebra</li><li>3 Ratio, proportion and rates of change</li><li>4 Geometry and measures</li><li>5 Probability</li><li>6 Statistics</li></ul>

Implementation	
<b>How is this subject delivered/taught to students?</b>	<b>How is formative and summative assessment used in this subject to improve student's skills and knowledge?</b>
<p>Maths is an interconnected subject, therefore a sequenced and mastery curriculum is designed to encourage students to become fluent through varied and frequent practices with increasingly complex problem solving over time. Staff make learning as meaningful and visual as possible. Concrete resources and pictorial representations are used to support learning.</p> <p>Pupils' next steps (and gaps in understanding) are made obvious to them through the use of Arbor, and KPI grids which are in their books.</p>	<p>The Edexcel baseline assessment identifies students' starting points. Knowledge, understanding and levels of attainment are assessed in maths in a number of ways – incorporating both formative and summative.</p> <p>Daily marking, observations, Discussions with pupils, focussed questioning, direct and open questions allow staff to assess knowledge and understanding of concepts taught. Individual topic tests, end of unit tests, are used before new units are taught.</p>
<b>How is enrichment (e.g. residential, clubs) implemented to enhance the components of this subject?</b>	<b>How are spiritual, moral, social and cultural values developed in this subject?</b>
<p>Local trips are used to develop a deeper understanding of application numbers, money, direction and the concept of time. Work experience will further strengthen the understanding that mathematics plays a crucial role in virtually every sector of employment.</p>	<p>Spiritual - Students are encouraged to recognise their strengths and celebrate their own and others success. An underpinning drive to develop students who are resilient, determined and respectful through self and peer assessments.</p> <p>Moral - Students are encouraged to take risks and learn from experiences in math to develop their skills further.</p> <p>Social - Promoting values of tolerance and resilience through problem solving.</p> <p>Cultural - Students work inclusively together with mutual respect.</p>

Impact – Top 5!
<p><b>1</b></p> <p>The maths curriculum ensures that the needs of all children will be met through high quality teaching.</p>
<p><b>2</b></p>

The tracking of progress shared with students enables them to clearly see their next steps, and for staff to target gaps.

**3**

Behaviour for learning in maths encourages students to take pride in their achievements.

**4**

Students are given the chance to achieve success in a variety of qualifications along with the GCSE.

**5**

In Summer 2022, all students who sat the GCSE maths exams achieved a grade.