

Curriculum overview – Maths department

Intent

The maths 'mastery' scheme of learning is to deepen students' understanding of mathematics and build confidence in a way that allows them to: be fluent in their approaches; be able to reason; be able to apply their knowledge to different contexts to solve problems. Each of the themes build on skills taught in previous years and prior learning from various contexts is fed in to each new learning point to develop this deep understanding. In order to broaden and deepen our curriculum, we offer extra-curricular clubs such as Further Maths and Logic Society and provide students with educational visits including university workshops and regional competitions.

KS3 overview

Y7 - Builds on the Y6 curriculum, ensuring that those who have not met expected standard are catered for and taught the 'basics' that they did not master at primary school, as well as more challenging content that follows on from this.

Y8 – Builds on the Y7 curriculum, deepening students' understanding of the fundamentals of mathematics.

Y9 - By the end of this year, all students will have been exposed to all national curriculum statements to a minimum of grade 5. The year builds on existing knowledge gained in Y7 & 8, increasing the complexity in preparation for GCSE in Y10 and bridges KS3 basics with GCSE content (e.g. algebraic manipulation with graphs and basic proportion with formal methods of direct and inverse proportion). At the end of the summer term, after all existing knowledge has been built upon, crossover GCSE topics are taught as a transition into Y10.

KS4 overview

Y10 - Start of the GCSE programme. Class groups are given 'minimum' pathways based on results from Y9 and target grades such that students continually build on prior knowledge with challenge provided at every level.

Y11 – This year is intended to be a review year for foundation students whereas, for higher tier students, the first term is spent finishing teaching the highest of the higher tier content. Emphasis is placed on closing gaps in student knowledge identified throughout the year and the application of content to complex exam problems.

Stretch and challenge

A key element of the mastery scheme of learning is to stretch students through depth of understanding rather than acceleration through the content. Stretch and challenge is built into all schemes of learning through reasoning and problem solving. At Key Stage 3 in particular, for each topic, students have the opportunity to access 'rich' tasks to develop this depth of understanding. At Key Stage 4, the grade 6-9 pathway highlights the content for the most able, while all students are encouraged to apply cross-topic knowledge to exam style problems.

Enrichment opportunities

Further Maths Club
Logic Society
University Workshops
Regional Competitions
Maths Inspiration Events
Homework Support