



Highsted Grammar School

The Maths curriculum

Maths allows students to make sense of the world around them; it makes our lives orderly and prevents chaos. Snails make their shells, spiders design their webs and bees build hexagonal combs.

Students learn key concepts, which they practise to master key knowledge and understanding across different mathematical disciplines.

The Maths curriculum promotes practical problem-solving in every lesson and fosters logical and critical thinking, as well as students' abstract and spatial abilities, which are then applied to real-world examples.

Content

Years 7-9

Students study key concepts within number, algebra, ratio and proportion, geometry, probability and statistics.

Years 10 & 11

Students develop their mathematical fluency, reasoning and problem-solving in topics such as indices, quadratics, trigonometry, vectors and circle theorems.

Sixth Form

In Maths students build on KS4 study and introduces calculus and its applications. The sixth form Maths curriculum includes overarching themes such as mathematical argument, language and proof, and modelling to master more advanced processes in the subject. The study of Further Maths at KS5 gives students the opportunity for ever greater complexity in the subject especially in applied areas such as statistics and mechanics.

Examples of cross-curricular links

With Maths, e.g. the use of regular polygons with Scratch.

With Food Preparation and Nutrition, e.g. the importance of culinary ratios by weight and volume.

With Music, e.g. in time signatures, beats per minute and formulaic progressions.

Extra-curricular opportunities

Junior, Intermediate and Senior Maths challenges

British Mathematical Olympiad