



# Mathematics

*“The study of mathematics, like the Nile, begins in minuteness but ends in magnificence”*

Charles Caleb Colton

## Course content

GCSE Mathematics offers pupils the opportunity to develop mathematical knowledge and understanding that can be applied in real world scenarios. Higher order thinking and problem solving skills that are nurtured throughout the course can be adapted for use in all subjects across the curriculum.

As of Summer 2017 GCSE pupils will be sitting examinations under the new 9-1 criteria. This new course has a wider ranging content and focuses highly on problem based mathematics and the application of formula and functions. This has led to the curriculum model at KS3 and 4 changing to get the most out of these alterations. To prepare pupils as much as possible ahead of their GCSEs, we have adapted and expanded the teaching styles to include seminar/lecture teaching, response led learning (pupils identifying and working on their individual weaknesses), flexible intervention sessions and a focus on understanding and analysing the mathematical problems.

All pupils will be offered after school opportunities for revision, and the option of weekly catch up sessions run by several members of the department allows for learning outside of the classroom.

## Skills developed

- Reasoning and deduction skills
- The ability to interpret a problem and apply the correct method to it
- Proficiency with scientific calculators and other mathematical equipment

## Areas covered

- Course assessed on Number, Algebra, Ratio, and Proportion, Geometry, Probability and Statistics
- Examination over 3 exams with two allowing access to a calculator
- Holistic problems set in real world context
- Use of financial, mechanical and pure mathematics.
- The ability to use proof to support solutions and reasoning to define answers

## For more information

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