



## GCSE Mathematics

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### Why study GCSE Mathematics?

Mathematics is a core subject up to and including Year 11 and the specification followed is a mixture of traditional and modern mathematics complying with the National Curriculum. Students will be provided with a rich experience of Mathematics, enabling them to understand its importance in analysing problems related to both the real world and to Mathematics itself. The Linear Mathematics GCSE will give students more opportunities to see how Mathematics works in the real world and to engage in conceptual thinking.

### What does the course involve?

The course content has been organised into six topic areas:

1. Number
2. Algebra
3. Ratio, proportion and rates of change
4. Geometry and measures
5. Probability
6. Statistics

As students' progress they will be expected to absorb new ways of thinking and working mathematically. Some questions will be designed to help develop specific skills. These are:

#### **Mathematical reasoning**

Applying skills and drawing conclusions from mathematical information

#### **Communicating mathematically**

Demonstrating how answers have been derived by using mathematical arguments

#### **Problem solving and making connections**

Devising strategies to answer questions based upon the information given

#### **Evaluating and interpreting**

Considering information and commenting upon it

### How will I be assessed?

At the end of the course, students will complete three examinations. Paper 1 is non-calculator and equates to 33½% of the final examination grade, paper 2 and 3 are calculator papers and each equate to 33½% of the final examination grade. Grades 1-9 will be awarded in line with Government reform. Students will be assessed throughout the course to ensure that targets are achieved.

### What are my progression routes?

Students who gain a grade 7 or above at GCSE will be suitably equipped to study for an AS or A-level in mathematics. Students who gain a grade 8 or above at GCSE will be suitably equipped to study for an AS or A-level in Further mathematics in addition to the AS or A-level in mathematics. A-level maths is tremendously important. It provides a firm foundation for all scientific, technical, engineering and mathematical careers and a flying start for many other types of career, such as those in finance, medicine, agriculture: the list is endless.

### Additional Information

Students will require a scientific calculator in all lessons. We recommend the purchase of a Scientific Calculator.

Students who achieve below a grade 4 at GCSE will be required to continue studying mathematics at post 16 until a grade 4 is achieved.