

# Mathematics

## What will I learn?

All students at key stage 4 study GCSE mathematics. Many of the topic areas from key stage 3 are extended and there is more emphasis on algebra and formal skills, such as trigonometry and quadratic equations. There is also a larger emphasis on contextualised problem solving.

In GCSE mathematics you will use and apply mathematics in practical tasks, in real life problems and within mathematics itself. You will:

- Develop and use a range of methods for working with numbers.
- Focus on the various methods to apply different forms of ratio.
- Use algebra to model real life situations and solve problems.
- Explore shape and space.
- Use data analysis to make judgements.

## What skills do I need?

You will need to be able to:

- Solve problems using mental, written and calculator methods.
- Use fractions, decimals, percentages and ratios to solve problems.
- Understand and apply algebraic and other mathematical skills to real life situations.
- Present and analyse statistics.
- Break larger problems down into smaller sections.

## Assessment

### Examination

- Paper 1 (non-calculator):  
90 mins | 33%
- Paper 2 (calculator):  
90 mins | 33%
- Paper 3 (non-calculator):  
90 mins | 33%

## Could lead to:

The mathematics GCSE has changed significantly since September 2015. There is more content and far more complexity is expected in the examination questions. Due to this, we may offer an additional course, such as further maths, as an extra-curricular activity during Year 11 instead of during curriculum time.

A good GCSE grade in maths is an essential requirement for numerous future qualifications at sixth form, college or university, such as maths, engineering, economics, the various scientific courses, and more. The course also provides skills that most employers will find extremely valuable, such as problem solving, thinking creatively, an understanding of units and measures, as well as crucial number skills.