

Mathematics

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What is GCSE Mathematics all about?

GCSE Mathematics has been reformed for entry from 2017. The new GCSE places more emphasis on reasoning and problem solving and a new grading system will be introduced. Grading will be on a 9-point scale, with 9 being the highest available grade and 1 the lowest.

The GCSE will cover the following content headings:

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

While studying mathematics you will be expected to:

- use mathematical skills and knowledge to solve problems
- use logic and reasoning to solve problems
- break down problems into smaller steps in order to solve them
- use the mathematics that you learn to solve problems that might happen in real life
- learn how to use a calculator to solve problems quickly and effectively

How does it follow on from what I have learnt before?

You will be able to carry on the GCSE preparatory work you have already started in Year 9. Your teacher, however, might change. At the end of Year 9 you will be put in sets according to ability across the whole year group, rather than in two parallel bands. Your performances in the Year 9 end of year tests in May and in the classroom are the main criteria upon which you will be allocated to a group.



Why do I have to take GCSE Mathematics?

GCSE Mathematics covers a lot of basic skills that you will need to use in a variety of ways throughout your life and because of this it is a compulsory subject for all students in Years 10 and 11. You will use a lot of what you learn in GCSE Mathematics in the other GCSEs that you study: in Science you may be asked to use formulae and solve equations; in Geography you will need to read charts and diagrams and use statistics; in D&T you will need to use measures and make scale drawings. Most college and 6th form courses require GCSE Maths as an entry requirement, as do many jobs and careers.

What about Exams?

You will have to take three examination papers at the end of Year 11, available at two different levels. A final decision regarding your level of entry will be made after the Year 11 mock examination, depending on the standard you have reached. You will not be allowed to enter for more than one level.

The three papers are worth 100% of the total marks. The questions will be arranged so that the easiest ones come first and then the standard gradually gets harder. There will be a mixture of short and long questions. You will not be allowed to use a calculator for the first examination paper, but it is permitted for the second and third examination papers. You might be asked to solve a problem about anything you have studied on any of the three papers.

What equipment will I need?

As well as the basic mathematical equipment like a ruler, protractor and a pair of compasses, you will need a scientific calculator and it should be with you in every mathematics lesson so that you can become familiar with it. Unfortunately, some students have missed out on their grades in the past by being unfamiliar with the calculator they have used in their GCSE exam. You can buy a suitable calculator from the school at a very reasonable price. We recommend the Casio fx-83GT plus.

What could I do next with GCSE Mathematics?

GCSE Mathematics is an important foundation for many of the paths you may follow in employment or further education, and a requirement for many university courses. If you get a good grade at GCSE you may decide to take Mathematics or Further Mathematics A level. Almost all jobs and careers require you to have Mathematics GCSE.