



## Mathematics

**Examination Board: AQA**

**Examination Code: 8300**

**(Plus 8365 Level 2 Further Maths Accelerated sets only)**

### Outline of the Course

#### Topics studied in Year 10 (in order)

1. Sequences
2. Graphs and Coordinates
3. Ratio and Proportion
4. Indices and Surds
5. Algebraic Manipulation
6. Geometry
7. Algebra and Equations
8. Transformations
9. Vectors
10. Algebra
11. Trigonometry –1
12. Real-life Graphs
13. Handling Data –1
14. Trigonometry –2
15. Probability

#### Topics studied in Year 11 (in order)

16. Number
  17. Circles
  18. Length, Area and Volume
  19. Further Algebra
  20. Graphs
  21. Handling Data - 2
  22. Inequalities
  23. Percentages
  24. Constructions
- Revision and Practice

*The two Accelerated sets will also cover the AQA Level 2 in Further Mathematics. This is an additional qualification, covering some of these topics in more depth, plus additional units on Calculus (Differentiation) and Matrices.*

## What will you learn?

**Number:** Properties of numbers and calculations.

**Algebra:** Manipulation; formulae; equations and inequalities; graphs; sequences.

**Ratio, proportion and rates of change:** Using ratios; scale factors; ratio problems; direct and inverse proportion; gradients.

**Geometry and measures:** Properties of shapes and angles; length, area and volume; Pythagoras' theorem; trigonometry; vectors.

**Probability and Statistics:** Calculating probabilities; collecting, processing and analysing data.

## How will I be assessed?

Three 1½ hour examination papers, taken at the end of the course. There is no coursework or controlled assessment.

On each paper, there will be a mix of question styles, from short, single-mark questions to multi-step problems. The mathematical demand increases as you progress through the paper. One paper is a non-calculator paper.

You will be prepared for the Higher Tier examinations.

*Accelerated sets (Further Mathematics): Two additional 1¾ hour papers. One paper is non-calculator.*

## Mark Breakdown

Each paper is worth 33⅓% of the final mark and can assess any part of the course. Over the three papers, the content breaks down as follows: Number 15%; Algebra 30%; Ratio, proportion and rates of change 20%; Geometry and measures 20%; Probability and Statistics 15%.

The Higher Tier covers grades 4 to 9.

*Accelerated sets (Further Mathematics): each paper is worth 50% of the final mark and can assess any part of the course.*

## Website links

<https://www.aqa.org.uk/subjects/mathematics/gcse/mathematics-8300/specification>

## Key Dates

Exams: May/June Year 11

## Further Information

Mr. C. McAvoy - Curriculum Leader

Mrs. C. Mycock – Second in Department

Mr. O. Chadbond - Subject Teacher and Exams Officer

Mrs. K. Carter – Subject Teacher and Assistant Director of Sixth Form

Mrs M. Ezzy – Subject Teacher

Mr. S. Ahmad - Subject Teacher

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**What can I do after I have completed the course?**

GCSE Mathematics is an essential qualification for entry into the Sixth Form and for application to university and most careers.

By gaining the qualification, you not only show yourself to be numerate, but that you are able to approach any problem in a logical and analytical way. Mathematics as a qualification is key to a number of employment opportunities later on. These can range from engineering in its many forms to health-related jobs and veterinary science. GCSE Mathematics is essential for studying A Level Mathematics and A Level Further Mathematics, as well as Level 3 Core Maths qualifications.

*Level 2 Further Mathematics covers some material from the A Level courses, but is not a prerequisite for either course.*