

# KS4 GCSE Maths

## Course Specifications

**Exam board: Pearson**

**Course type: Compulsory GCSE**

## Course Description

Mathematics at Alperton Community School aims to enable students to develop fluent knowledge, skills and understanding of mathematical methods and concepts. A key component of the new curriculum is for students to acquire, select and apply mathematical techniques to solve problems, reason mathematically; make deductions and inferences, and draw conclusions.

A key focus at Key Stage 4 is for students to comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context.

There are six areas of mathematics that will be assessed:

1. Number
2. Algebra
3. Ratio, Proportion and Rates of change
4. Geometry and Measures
5. Statistics
6. Probability

## Skills & Abilities

There is a great demand on problem solving in Maths GCSE and teaching focuses on this. We expect students to be able to tackle these questions in a more confident manner. In order to support their independent learning, we provide students access to MyMaths, Mathswatch and all students can access the online GCSE textbook.

## Assessment

Assessment in mathematics is via 100% examination at the end of Year 11. Due to the increase in content there will be 3 exam papers (1 non-calculator and 2 calculator papers), each lasting 90 minutes and worth 80 marks.

## Careers & Progression

### Progression

This qualification prepares students for progression to further study of mathematics at AS and A level, and also to the study of AS Core Mathematics. These Level 3 qualifications prepare students for a variety of further progression routes.

Students can also progress from this qualification to Level 3 qualifications in numerate disciplines, such as:

- A Levels in the sciences
- A Level Geography □ A Level Psychology
- A Level Economics
- other qualifications that require mathematical
- skills, knowledge and understanding

### Careers

While maths is a fundamental subject for much of science and technology, there are numerous other routes that can be taken. Jobs directly related include: Aerospace engineer; Higher education lecturer; Investment analyst; Meteorologist; Research scientist (maths); Secondary school teacher; Statistician.

Jobs where maths would be useful include: Actuary; Chartered accountant; Chartered management accountant; Corporate investment banker; Financial risk analyst; Operational researcher; Systems developer.

## Guidance & Advice

Pearson GCSE 9-1 Maths (Higher and Foundation)

MyMaths (school log in)

Mathswatch (school log in)

VIP zone