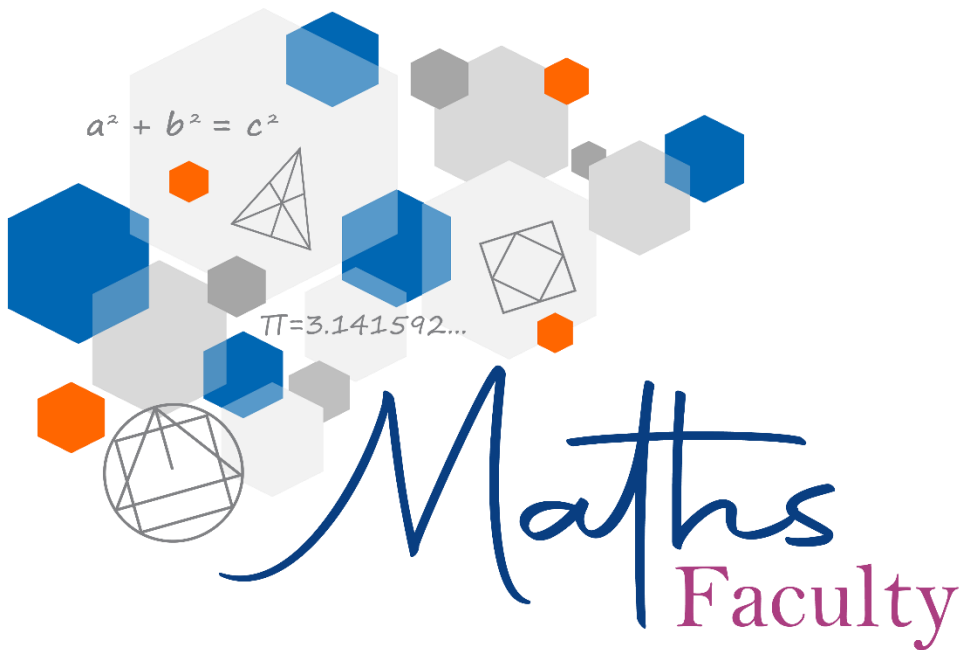


# Curriculum Information

Key Stage 4



*"Developing confident problem solvers who understand mathematical structures of the world around us"*

*For yourself & for others*

## **Curriculum Intent**

Mathematics is the key to understanding the logic of the world in which we live. At Ashby School, we believe that every student is capable of grasping these logical structures and excelling in mathematics. Taught by our expert staff, students gain fluency in mathematical methods, develop conceptual understanding, and learn to apply problem-solving strategies. Staff manage the pace of lessons to ensure it is matched to the needs of students. In our teaching, we are keen to highlight the connections between different areas of mathematics to build strong foundations for future success.

## **Key Stage 4 Maths**

### **Curriculum Aim:**

We aim for students to develop:

- Confidence and a positive attitude to mathematics
- An appreciation of the use of mathematics in society
- An ability to communicate mathematically
- The ability to apply mathematics to a wide range of problems
- A firm foundation and the desire for further study.

### **Assessments:**

GCSE Mathematics has a Foundation tier (grades 1 – 5) and a Higher tier (grades 4 – 9). Students will take 3 exam papers at the end of year 11 which will assess their understanding of the course. This consists of one non-calculator paper and two calculator papers.

### **Course Content:**

We cover the content according to the Mathematics programme of study for Key Stage 4.

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas.

In Key Stage 4 different classes will cover content at the pace appropriate to their individual learning needs. All pupils should develop and consolidate connections across mathematical ideas. They should build on learning from key stage 3 to further develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge wherever relevant in other subjects and in financial contexts.

We value the key the aims of the national curriculum for mathematics and these principles underpin all mathematics teaching at Ashby School. We aim to ensure that all pupils:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and nonroutine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

### **Key Stage 4 Maths**

Link to specification:

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