M aths

Mathematics is a **challenging** and **valuable** A level qualification, popular because of its **stimulating curriculum** and its **high regard in industry** and the **employment market**. This is why university mathematics graduates earn approximately **10% more** than their peers! In studying mathematics beyond GCSE, students explore its beauty, both in terms of abstract algebra & proof and its application to real world problems including mechanics modelling and statistical analysis. Students approach problems with logic and an analytical focus, developing key critical thinking skills.

Course Outline

As part of the curriculum, students will study Pure and Applied maths. They will cover content from four textbooks – Pure AS Maths/Pure A2 Maths/Applied AS Maths/Applied A2 Maths. The structure of the course is such that all AS content is learnt in year 12 and all A2 content taught in year 13 builds on their understanding from year 12.

Pure A level mathematics extends fundamental mathematical skills, such as *Algebra* and *Trigonometry* and introduces new topics such as *Calculus* and *Radian Measure*. **Applied A level mathematics** includes *Statistics* and *Mechanics* modules, in which 'real world' situations are modelled mathematically. Our exam board for A Level maths is **Edexcel.**

Assessment

A-Level Mathematics is assessed **by examination only**. Students sit **public examinations at the end of year 13.** There are three two-hour exams (2 Pure/1 Applied) for the A2 qualification. The exams are **equally weighted,** and the final grade is calculated as an average of all three examination results.

Preparing for assessments:

Throughout the year, A level mathematicians complete weekly diagnostic tests covering content from that week's lessons. These diagnostics allow students to practice exam style questions regularly and help them asses their own level of understanding. Students will build up a folder of classwork, homework, revision and diagnostics tests which will prepare them for assessments. **Practising full papers and unit tests** also prepares students for assessments. Here is the content plan for assessments this year:
- ✓ AUTUMN 2 Assessments: Pure (topics covered so far)
- ✓ SPRING 2 MOCK: Pure (full paper) and Applied (topics covered so far)

Entry requirements

GCSE Maths: **7**