



Mathematics AS and A Level

Examination board: AQA

A Level Mathematics provides a framework within which a large number of young people continue the subject beyond GCSE Level. It supports their mathematical needs across a broad range of other subjects at this level and provides a basis for subsequent quantitative work in a very wide range of higher education courses and in employment. It is also an essential requirement for those who study AS and A Level Further Mathematics.

A Level Mathematics builds from GCSE Level Mathematics and introduces calculus and its applications. It emphasises how mathematical ideas are interconnected and how mathematics can be applied to model situations mathematically, using algebra and other representations, to help make sense of data, to understand the physical world and to solve problems in a variety of contexts, including social sciences and business.

AS Level Mathematics, which is taken at the end of Year 12, is a very useful qualification in its own right. It consolidates and develops GCSE Level Mathematics and supports transition to higher education or employment in any of the many disciplines that make use of quantitative analysis, including those involving calculus.

Students who take AS and A Level Mathematics will need a good independent work ethic, as consolidation of skills and techniques learnt in the classroom is essential. Aside from lessons, help is available from department staff and from online sources.

Assessment:

For the AS Level qualification there will be two examination papers, of 1½ hours in duration, which will be taken in the summer of Year 12. Questions will include a mix of styles, from single-mark questions to multi-step problems.

For the A Level qualification there will be three examination papers, each lasting 2 hours, which will be taken in the summer of Year 13. Questions will, again, include single-mark questions to multi-step problems.

Careers and Study Progression:

A Level Mathematics prepares students for further study and employment in all mathematical and scientific disciplines that require knowledge and understanding of mathematical modelling ideas and techniques.

In Higher Education, a Mathematics degree complements Physics, Chemistry, Engineering, Economics, Business, I.T. and Biology but it can also involve the Arts and Humanities. Mathematics studied alongside History, English, Music or Modern Foreign Languages are some of the increasingly broad range of Mathematics-based courses available.

Mathematicians pursue careers in fields such as: accounting, medicine, engineering, forensic pathology, finance, business, consultancy, teaching, IT, games development, scientific research, programming, civil service, design, construction and astrophysics, to name a few.