

Mathematics

EDEXCEL Specification



General information:

A level Mathematics is one of the most highly regarded qualifications by universities and employers alike. It demonstrates the ability to think and reason logically, as well as apply high level mathematical skills in solving problems. It is the most popular course here at BWS with over 110 students currently in Year 12.

Mathematics is the cornerstone of science and engineering and is increasingly used as a tool in business and social policy as well as being the basis for the IT industry. Maths is essential for most Science or Engineering degree courses and also for Economics. The subject is a useful strand in the educational background for a huge range of careers.

Course content:

The linear A level Mathematics course is entirely prescribed, with compulsory content identical across all examination boards. The course is made up from two thirds Pure Maths and one third Applied Maths content.

Pure Maths is the study of topics such as algebra, trigonometry, calculus and sequences. Applied Maths contains both Statistics content, which is the study of large sets of numerical data and also probability, and Mechanics content, which is the application of maths to problems in Physics and engineering such as the flight of projectiles or the acceleration of a car.

How is the course taught and assessed?

Students will be taught by 2 specialist mathematics teachers. One teacher will teach half of the pure maths content along with the Mechanics, and the other will teach Statistics along with the remaining pure content. Students will be expected to undertake homework and independent study work outside of the classroom.

The A level is fully examined at the end of the two-year course via the sitting of three x 2-hour papers which cover topics studied over the two years. The Edexcel examinations comprise of two papers covering the Pure content and one covering both the Statistics and Mechanics applied content.

Entry requirements:

In addition to the general entry requirements for BWS, a grade 7 in GCSE Mathematics.

Results information:

Mathematics is a very successful subject at BWS. In 2025 85% of students achieved A* - B grades at A level with 26% at the top A* grade.

Top destinations for students:

Oxford / Cambridge to study mathematics, computing, engineering and physics. LSE to study economics.

Beyond the curriculum:

Students have the opportunity to take part in the Maths Challenges organised by the United Kingdom Mathematics Trust, UKMT. The Senior Maths Challenge takes place in November and we also take a team of four Year 12 and 13 students to the Senior Team Challenge, and have been successful on a number of occasions in getting through to the National Finals in London.