

A Level Mathematics

at The Warriner School



Mathematics

Level: A level

Entry requirements:

GCSE Mathematics at grades 7 or above. Students achieving a grade 6 will be admitted at the discretion of the Maths Department. For Further Mathematics, students will have achieved a grade 8 or 9.

Exam board: OCR – MEI specification. This is a new specification as of 2017.

The changes include:

New linear structure: All assessment will take place at the end of the course. Exam questions may draw on the content of the whole A Level.

New emphasis: There is more emphasis on problem solving, reasoning, and modelling, and a requirement for the use of technology to permeate teaching and learning. For this purpose we recommend a graphical calculator.

New content: The content of A Level Mathematics is fixed. It will include pure mathematics, mechanics and statistics (including analysis of large data sets). There is some choice in content for A Level Further Mathematics.

Assessment structure: Formal exams taken at the end of Year 13. This consists of 3 2 hour papers covering the following topics:

Paper 1: Pure Mathematics & Mechanics

Paper 2: Pure Mathematics & Statistics

Paper 3: Pure Mathematics & Mathematical Comprehension

Skills required: Students who succeed with A-Level Mathematics love to persevere with a challenge; they accept that they will make mistakes and are happy to use these to improve their understanding. They develop both a logical and a creative approach to problem solving and are driven not only to finding solutions, but to understanding why. A Level Maths has a significant algebraic element to it, and fluency in techniques covered on the GCSE course is expected. These include expanding brackets, factorising expressions, solving equations (linear, quadratic and simultaneous) and rearranging equations.

Future study avenues or careers:

Mathematics is one of the most marketable A levels and it is difficult to think of any career where it would not be welcomed.

Below are some for which the content studied at A level would be particularly relevant:

Engineering	Actuary
Software analyst / programmer	Accountant
Financial analyst	Stockbroker
Meteorologist	Computer game designer
Statistician	Architect
Sports scientist	Economist
Teacher	Investment banker
Forensic scientist	Medical statistician

You might also want to look at some interesting case studies on STEM careers at www.linoit.com. Login is *Warriner* and password is *algebra*