



A Level Mathematics Edexcel

Curriculum Leader: Mr Machin

Course Overview:

Students will cover pure mathematics, statistics and mechanics over the two-year course. They will be taught topics, investigate problems and learn the importance of modelling with consistent emphasis of mathematical arguments, language and proof. Students will explore new areas of mathematics, such as calculus and logarithms, and see how they can solve problems that include these.

Paper 1: Pure Mathematics

Paper 2: Pure Mathematics

Each paper is a 2 hour written examination (33.33% of the qualification).

- Topic 1 – Proof
- Topic 2 – Algebra and functions
- Topic 3 – Coordinate geometry in the (x, y) plane
- Topic 4 – Sequences and series
- Topic 5 – Trigonometry
- Topic 6 – Exponentials and logarithms
- Topic 7 – Differentiation
- Topic 8 – Integration
- Topic 9 – Numerical methods
- Topic 10 – Vectors

Paper 3: Statistics and Mechanics

2 hour written examination (33.33% of the qualification).

Section A: Statistics

- Topic 1 – Statistical sampling
- Topic 2 – Data presentation and interpretation
- Topic 3 – Probability
- Topic 4 – Statistical distributions
- Topic 5 – Statistical hypothesis testing

Section B: Mechanics

- Topic 6 – Quantities and units in mechanics
- Topic 7 – Kinematics
- Topic 8 – Forces and Newton's laws
- Topic 9 – Moments

Progression Opportunities:

Popular career choices for those with A-level maths include engineering, computing, accountancy, economics, banking, business, retail management, surveying, psychology, air traffic control, architecture, cartography, psychology and teaching.

Besides this, university courses in physics, business studies, psychology, computing, engineering and, of course, maths all stipulate A-level mathematics as completely necessary. There are also a number of other courses where A-level maths is favoured and compliments another subject well. Of course it is important to consider that A-level maths is a difficult subject to understand, but if you have a flair or even an average ability in the subject it is definitely one you should consider when choosing your A-level options.