

MATHEMATICS A-LEVEL



EXAM BOARD: Edexcel

COURSE DESCRIPTION:

Mathematics at A-Level is a widely respected qualification which is challenging, interesting and rewarding. It builds on work you have met at GCSE, and introduces new concepts and applications, many of which you will find useful in other courses such as biology or psychology.

While studying mathematics you will learn to model real life situations so that you can use mathematics to learn more about the physical world and make predictions for what will happen in the future.

COURSE CONTENT:

Mathematics at A-Level is divided into 2 branches, pure and applied. The pure content will extend the range and depth of the material you studied for GCSE and applied maths teaches you how to model the real world mathematically in order to draw conclusions and make predictions as to the future behaviour of the system being analysed.

- **Pure Mathematics:** Proof; Algebra and functions; Co-ordinate geometry in the (x,y) plane; Sequences and series; Trigonometry; Differentiation; Integration; Numerical methods; Vectors
- **Applied Mathematics:** Statistics: Statistical sampling; Data presentation and Interpretation; Probability; Statistical distributions; Statistical hypothesis testing.
- **Mechanics:** Quantities and units in Mechanics; Kinematics; Forces and Newton's laws; Moments.

ASSESSMENT:

The course is assessed by three 2 hour exams at the end of Year 13. Two exams are based on the pure mathematics topics and one is based on the applied content.

ENTRY REQUIREMENTS:

Mathematics GCSE at Grade 7 or above.