MATHEMATICS
We study the EDEXCEL syllabus.

Entry Requirements:
6 x grades 9 to 4 GCSE passes, including a 4 in English Language. The minimum entry criterion for this subject is a Grade 7 at GCSE Maths.

What will I study?

- **Pure Mathematics** which will include: Algebra and Functions, Calculus, Binomial Expansion, Sketching Curves, Arithmetic and Geometrical Sequences and Functions, Trigonometric Identities and Equations, Numerical methods, Exponential and Log functions, Radians, Vectors and Co-ordinate Geometry.
- **Applied Mathematics** which includes Mechanics and Statistics. These will involve the study of: *Mechanics*: Mathematical Models, Kinematics of a Particle, Statics of a Particle, Moments. *Statistics*: Probability, Correlation; Regression, Discrete Random Variables and the Normal Distribution.

What are the examination/coursework requirements?

- Assessment is based on 3 examinations – 2 x Pure and 1 x Applied (combined Mechanics and Statistics). Each exam lasts 2 hours, marked out of 100. Calculators are allowed in all three. There is no coursework for A Level Mathematics.

What skills will I develop?

- Develop areas of your brain that are left untouched by other subjects
- Extend your analytical ability and logic
- Gain a better understanding of other subjects through improved cognitive & communication skills
- We are members of the Further Maths Support Programme, meaning we have access to reduced price trips to universities like Oxford or more local study days at Kingston University. These trips give you an opportunity to expand your horizons, meet students from other schools and see lectures from important current Mathematicians.
- We enter students to the Senior Maths Challenge and Senior Team Challenges every year, giving students the chance to further develop problem solving skills. In the case of the Team challenge, you will also learn how to work effectively with others in a high pressure environment.

How will this subject help me with my future career?

Studying Maths will always be looked on very favourably by all universities as a significant proportion of modern degrees have Mathematics modules. There are many career paths after studying Mathematics at university – Accountancy, Investment Banking, Stock Broking, Engineering, Actuarial Scientist, becoming a Statistician, a Teacher or even a University Lecturer! Statistics show that graduates can earn up to £600,000 more than non-graduates over their working lives. Students who study Maths tend to earn a ⅓ more. That's £800,000!