

# Maths - A Level

Contact Person: Mrs R Coates

## Course Outline

Year 12

Pure Mathematics - Proof, Algebra & Functions, Co-ordinate Geometry Sequences & Series, Trigonometry, Exponentials & Logarithms, Differentiation & Integration, Vectors  
 Statistics - Statistical Sampling, Data Presentation & Interpretation, Probability, Statistical Distributions, Statistical Hypothesis Testing  
 Mechanics - Quantities and Units, Kinematics, Forces and Newton's Laws.

Year 13

Pure Mathematics - development and extension of Year 12 topics  
 Statistics - development and extension of Year 12 topics  
 Mechanics - development and extension of Year 12 topics

## Skills/Aptitudes Developed/Required:

You must be a good mathematician, with Grade 7 or above at GCSE level. If you are in set one in Year 11 it is likely that this course will suit you.

Algebraic fluency is a priority, as are strong organisational and time management skills. Most importantly you must enjoy maths!

## Additional Considerations:

You may be considered for this course if you have a really high Grade 6 at GCSE level and your algebraic manipulation is strong. All students will have to complete a pack of work over the summer and will be given a short test in one of your first lessons in September. This is to ensure that you start the course with a strong foundation and therefore go on to be successful.

## Progression Post-18

Maths is essential for many degree courses besides a Mathematics degree and is desirable for many more. These include Chemistry, Physics, Biology, Computer Science, Technology, Engineering, Geography, Economics, and Psychology.

Maths also supports many other courses and careers, for example accountancy, actuarial work, banking, computing, MORSE and management.

Whatever employment or further education is pursued, Maths AS/A2 is highly respected and research suggests that people with A-level Mathematics may earn up to a third more per annum than those who don't have it!

