



### Faculty Introduction:

Many A levels which include AS and A2 qualifications are currently under review as a result of a Government initiative to drive up standards. We know that all exams will become linear instead of modular and it is likely that AS will become a stand alone qualification. This process involves a thorough review of current practice and new courses are not expected to be taught before September 2017. Regardless of the outcome of this review all the teachers at this school are determined to ensure that all students receive the very best educational experience possible. We have a dedicated team of mathematics specialists who have a broad experience of teaching KS5 topics.



### Topics/Modules to be covered in the year:

The Mathematics course builds on many concepts studied at GCSE, as well as introducing new concepts. Students will extend their range of mathematical skills and techniques and use them in a variety of contexts. All the units within the course are designed to ensure students understand the need to use appropriate techniques within models of real world situations, use mathematics as an effective means of communication and develop skills in problem-solving and organisation. Students study four units of Core Mathematics and two units of Applied Mathematics.

The principal components of Core Mathematics are Algebra and Functions, Coordinate Geometry, Trigonometry, Calculus, Sequences and Series

The Applied Mathematics units are Statistics and Mechanics

Statistics includes representation and summary of data, probability correlation and regression, discrete random variables, the Normal distribution.

Mechanics includes motion graphs, collisions and projectiles, Newton's Laws Applied Along a Line, Constant Acceleration and "SUVAT" Equations, Uniform Motion in a Circle

### Assessment:

Students embarking on Advanced Subsidiary and Advanced GCE study of Mathematics are expected:

- to have covered all the material in the GCSE Mathematics Higher tier and achieved a Grade B or better.
- to enjoy mathematics
- to be keen problem-solvers
- to be motivated and able to apply their knowledge to different situations

Formal assessment will take place at the end of each year however regular Pre Public exams, teacher led assessments and homework will ensure that both students and teachers have a clear understanding about student progress. The terminal papers are 90 minutes long and have a mix of calculator and non calculator papers.

### Homework expectations/key deadlines:

Homework is set each week and assessed through a combination of peer and teacher marking.

### Enrichment activities/revision sessions:

Weekly after school revision sessions or Period 5 take place with teachers on a Wednesday and additional tuition can be provided at any time if required.

### Useful websites for revision/revision guides/exam boards:

We use Edexcel as the provider of Core mathematics 1,2,3 &4 in addition to Statistics I & Mechanics I. We will provide revision guides and text books to students who take up this course.

[www.mrhgartymaths.com](http://www.mrhgartymaths.com)

[www.mymaths.co.uk](http://www.mymaths.co.uk)

[www.mathsbank.co.uk](http://www.mathsbank.co.uk)

[www.mathscentre.ac.uk](http://www.mathscentre.ac.uk)

[www.cimt.plymouth.ac.uk/projects/mepres/alevel/alevel.htm](http://www.cimt.plymouth.ac.uk/projects/mepres/alevel/alevel.htm)