PCHS Curriculum Information

Course Title: A Level Further Maths	**Exam Board:** AQA	**Specification Code:** 7367

How will students be assessed?
A level Further Mathematics is a linear course which is assessed with three examinations. Each exam is marked out of 100 and lasts for 2 hours. The papers are all calculator papers and are equally weighted, each being worth 33% of the final mark. Each paper has a mix of question styles varying from short single mark questions to longer unstructured questions. Paper one and paper two examine Pure Mathematical methods only, whilst paper three examines topics from two of Statistics, Mechanics or Discrete, depending on the needs of the cohort.
Throughout the course students will be informally assessed using regular topic tests and more formally with termly papers utilising exam questions.
The A level syllabus extends and deepens Mathematical understanding and requires students to demonstrate their skills and knowledge through the application of problem-solving techniques and with the use of clear, precise and appropriate mathematical language.

KEY CONTENT delivered by two teachers - one focussed on Pure content and the other on applied

Half Term 1
Pure content:
Complex numbers and geometry
Roots of polynomials
Matrices, transformations, determinants
Applied content:
Graphs and Networks
Network Flow

Half Term 2
Pure content:
Vectors and 3d space
Sequences and series
Proof
Applied content:
Critical Path Analysis
Linear Programming
Game Theory
Binary Operations

Half Term 3
Pure content:
Further algebra and functions
Conics
Polar coordinates
Further calculus

Applied content: Work, energy and power Impulse and momentum
Half Term 4 Pure content: Hyperbolic functions Applied content: Circular motion Dimensional Analysis
Half Term 5 Pure content: Revision and opportunity to sit AS exam Applied content: Revision & opportunity to sit AS exam
Half Term 6 Pure content: Begin Year 13 content: Sketching modular and reciprocal graphs Area and tangents of polar curves Sums and series using partial fractions Determinants of 3 x 3 matrices Vector product Applied content: Further Graphs and Networks Further Critical Path Analysis