MATHS

KS4

FINAL GCSE EXAMS

YEAR 11

- **Extension, Revision and exam practice**
- **Geometry**
  - Angles, polygons and bearings
  - Pythagoras' Theorem
  - Vectors
  - Constructions and Loci
- **Similarity**
  - Congruence, similarity and enlargement
  - Trigonometry
- **Number and Algebra skills**
  - Indices
  - Standard form
- **Probability and sets**
  - Theoretical and experimental
  - Recording outcomes
  - Tree diagrams
  - Venn diagrams

YEAR 10

- **Equations, Inequalities and formulae**
  - Solving more complex equations and inequalities
  - Changing the subject of a formula
- **Sequences, functions and graphs**
  - Types of sequence
  - Gradient
  - Graphs and equations
- **Transformations**
  - Rotations
  - Reflections
- **Statistics**
  - Scattergraphs
  - Frequency Polygons
  - Applying averages
- **Using number**
  - The four operations: Non-calculator methods
  - Estimating
  - Powers, roots and primes
  - Using fractions, decimals and percentages
- **Geometry in 2 and 3 dimensions**
  - Properties of number: Place value and ordering
  - Rounding
  - Using multiples
  - Shape names and properties
  - Area
  - Surface area and Volume
- **Algebra skills**
  - Statistics: Data handling
  - Collecting, Representing and Interpreting data
  - Expressions and equations: Substitution
  - Solving
  - Rearranging

Core curriculum topics for students working towards GCSE

Students working towards the Entry Level Certificate begin the course in Year 9

KS3

YEAR 9

- **Algebra Skills**
  - Expressions and equations
  - Reading and writing instructions using algebra
- **Number skills**
  - Fractions, decimals and percentages
  - Measurement and units
- **Position and direction**
  - Geometry skills
  - Properties of 2D and 3D shapes
  - Position and direction
  - Transformations: Translations and vectors
  - Rotations, angles and bearings
  - Pythagoras' Theorem

YEAR 8

- **Representations**
  - Coordinates, Lines and equations
  - Scattergraphs
- **Proportion**
  - Ratio
  - Multiplicative change
  - Using fractions
- **Methods and Strategies**
  - Exploring alternative methods of calculation
  - Diagrams to 'see' the maths
- **Directed number and Fractions**
  - Operations and equations with negative numbers
  - Adding and subtracting fractions
- **Lines and Angles**
  - Constructing, measuring and using geometric notation
  - Developing geometric reasoning

Year 8 students have 3 core curriculum lessons per week plus one small group targeted, personalised intervention lesson to support and extend learning

YEAR 7

- **Applying number skills**
  - Solving problems using the four operations
- **Place value and Proportion**
  - Place value and ordering of integers and decimals
  - Fraction, decimal and percentage equivalence
- **Thinking with algebra**
  - Sequences
  - Understand and use algebraic notation
  - Equality and equivalence
- **Visualising numbers**
  - Types of number
  - Products, factors, multiples and primes
  - Numbers within shapes
- **Algebra and ratio**
  - Convert units
  - Area, perimeter and volume
  - Formulae, sequences and equations
  - Scale factors and unequal sharing
- **Statistics and geometry**
  - The mean, pie charts and line graphs
  - Shapes and angles
- **Revision, assessment, investigations**

Learning towards the GCSE qualification begins in Year 7, allowing students to become familiar with examination language and requirements over a 5 year period

KS2

YEAR 6

- **Decimals, percentages, measurement**
  - Understand and calculate with decimals and percentages
- **Fractions, Position and direction**
  - Calculate with fractions
  - Fractions, decimals and percentages
  - Coordinates, reflection and translation
- **Place value and calculating**
  - Positive and negative numbers
  - Using the 4 operations
  - Factors, multiples, primes and powers