Mathematics
Route to Remarkable

"Pure mathematics is, in its way, the poetry of logical ideas"
Albert Einstein

Year 11

- Transformations of Functions and their Graphs
- Vector Notation and Vector Geometry
- Trigonometry for Non-Right-Angled Triangles (Higher tier only)
- Graphs for Non-Linear Functions
- Volume of Spheres, Cones, Pyramids and Compound Shapes
- Similarity and Enlargement
- Circle Theorems (Higher tier only)
- Solving Simultaneous Equations
- Solving Quadratics Equations using the Formula and by Completing the Square (Higher tier only)
- Probability Tree Diagrams
- Histograms and Frequency Density (Higher tier only)
- Constructing Triangles and other 2D Shapes
- Constructions and Loci
- Compass Directions and Bearings
- More Rules of Indices
- Standard Index Form
- Trigonometry in 2D Problems using Right-Angled Triangles
- Trigonometry and Pythagoras' Theorem for Solving 3D Problems (Higher tier only)
- Surds and Manipulating Expressions containing Surds (Higher tier only)
- Nets, Isometric Drawing and Views of 3D Shapes
- The Circle
- Pythagoras' Theorem
- Cumulative Frequency (Higher tier only)
- Manipulating and Solving Quadratic Equations
- Quadratic Graphs
- Transformations
- Trial and Improvement and Iteration
- Scatter Diagrams and Correlation

Year 10

- Angles and Angle Properties of Lines and Shapes
- Ratios
- Formulae and Substitution
- Co-ordinates and Graphs
- Graphs for Real Situations
- Presenting Data – Pie Charts
- Proportions and Proportional Change
- Solving Inequalities