

Mathematics

Curriculum Information

Year 7

Learning Outcomes	Our Year 7 curriculum comprises differentiated modules in Number, Geometry & Measures, Algebra and Data Handling. Students continue to build on the mathematical skills and techniques developed during Key Stage 2. Frequent assessments inform progress and learning outcomes are regularly reviewed throughout the course.
Topics taught	Number and Operations 2D Shapes - Perimeter and Area Expressions and Equations Averages Number Properties - Multiples, Factors and Prime Numbers Angle Facts Representing Data Fractions, Decimals and Percentages of Amounts Coordinates and Linear Graphs Ratio and Proportion

Year 8

Learning Outcomes	Our modular curriculum continues into Year 8 and students continue to develop mathematical techniques further, with an increasing focus on problem solving activities. Students are encouraged to work both independently and collaboratively to develop and justify solutions. Progress and learning outcomes continue to be assessed and reviewed regularly.
Topics taught	Sequences Number and Calculations 2D Shapes Expressions, Equations and Inequalities Probability of Events 3D Shapes Ratio and Proportion Linear Graphs Number Properties Transformations Fractions, Decimals and Percentages Calculations

Year 9

Learning Outcomes	Our progressive curriculum continues into Year 9 as students develop the mathematical skills and techniques required for their GCSE course. Key ideas and concepts are consolidated to enable students to confidently use and explore Mathematics, including in real life contexts. Progress and learning outcomes continue to be assessed and reviewed regularly in preparation for the start of the GCSE course.
Topics taught	2D Shapes Problem Solving Averages and Frequency Tables Algebraic Manipulation Probability – Venn Diagrams, Set Notation and Tree Diagrams Angles, Constructions and Loci Ratio and Proportion Problem Solving 3D Shapes Number Properties – Index Laws and Standard Form

	Linear and Non-Linear Graphs Fractions, Decimals and Percentages Problem Solving Representing Data Simultaneous Equations	
GCSE		
Learning Outcomes	Our GCSE curriculum is written in line with the AQA GCSE Mathematics specification which enables students to: <ul style="list-style-type: none">• develop fluent knowledge, skills and understanding of mathematical methods and concepts• acquire, select and apply mathematical techniques to solve problems• reason mathematically, make deductions and inferences and draw conclusions• comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context. Our GCSE course is designed to extend our students’ range of mathematical skills and techniques with a particular focus on problem solving in a variety of contexts.	
Topics taught	Foundation: <ul style="list-style-type: none">• Angles, Bearings and Scale Drawings• Number and Calculations• Factors, Multiples and Prime Numbers• Algebraic Expressions• Fractions, Decimals and Percentages 1• Representing Data and Averages 1• Coordinates and Linear Graphs• Working in 2D• Sequences• Angles and Polygons• Linear Equations and Inequalities• Probability• Quadratic Expressions and Equations• Circles• Constructions and Loci• Pythagoras’ Theorem and Trigonometry• Fractions, Decimals and Percentages 2• Ratio and Proportion• Measures and Accuracy• Vectors• Working in 3D• Representing Data and Averages 2• Indices, Roots and Standard Form• Graphs• Probability of Combined Events	Higher: <ul style="list-style-type: none">• Angles and Polygons• Bearings and Scale Drawings• Number and Calculations• Algebraic Expressions• Fractions, Decimals and Percentages• Representing Data and Averages• Coordinates and Linear Graphs• Working in 2D• Linear Equations, Formulae and Functions• Probability 1• Representing Data• Equations• Graphs and Inequalities• Ratio and Proportion• Probability 2• Constructions and Loci• Circles and Circle Theorems• Measures• Working in 3D• Number Properties, Indices and Surds• Pythagoras’ Theorem and Trigonometry• Sequences• Graphs and Functions• Vectors• Real Life Graphs• Proof