

# Mathematics KS3 Curriculum



Year 7						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Content:</b> What will students know	Negative Numbers, Fractions 1, Algebra 1, Properties of Numbers, Venn Diagrams	Measure, Angles 1, Perimeter & Area, BIDMAS, Algebra 2	Symmetry, Coordinates and 2D shapes, Parallel Lines, Algebra 3, Number Patterns & Sequences	3D shapes, Volume, Transformations, Decimals, Non-Calculator Work 1	Non-Calculator Work 2, Statistical Diagrams, Fractions 2, Analysis of Data, Constructions	Fractions, Decimals & Percentages, Algebra 4, Vocabulary of a Circle, Probability, Frequency Trees
<b>Skills:</b> What will students be able to do	Construct and present mathematical arguments through appropriate use of diagrams; sketching graphs; logical deduction; precise statements involving correct use of symbols and connecting language, including: constant, coefficient, expression, equation, function, identity, index, term, variable.					
<b>Other:</b> Literacy/Numeracy/ Ethos	Mathematical vocabulary is introduced and assessed through the year					
<b>Assessment:</b>	Half-termly test	Half-termly test	Half-termly test	Half-termly test	EOY exam	Half-termly test

# Mathematics KS3 Curriculum



	Year 8					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Content:</b> What will students know	Equations and change subject, Indices/ Standard Form, Fractions (multiply / divide & mixed), Inequalities & Inequations	Probability & Sets, Algebra 1 (substitute, form, simplify), Areas & Surface Area, Angles, Angle rules & Polygons, Bearings & Scale drawings (maps), Stem & Leaf, Discrete Averages	Frequency tables/Grouped data, Scatter Graphs & Other charts, Different sampling methods basics, Fractions / Decimals / Percentages, Percentages, Real-Life/Travel graphs	Transformations (Reflect & Translate), Ratio & Proportion, Rounding (DP & SF), Circles – use of $\pi r^2$ & $2\pi r$ , Rotations	Straight line graphs, Simultaneous equations, Volumes (cuboids & prisms), Enlargements	Pythagoras Theorem, Constructions (bisectors & equidistant), Factorising single brackets, Inference, Errors and estimations, Further Ratio
<b>Skills:</b> What will students be able to do	Understand and use mathematical language and syntax as set out in the content. Understand and use language and symbols associated with set theory, as set out in the content. Apply to solutions of inequalities and probability.					
<b>Other:</b> Literacy/ Numeracy/ Ethos	Mathematical vocabulary is introduced and assessed through the year					
<b>Assessment:</b>	Half-termly test	Half-termly test	Half-termly test	Half-termly test	EOY exam	Half-termly test

# Mathematics KS3 Curriculum



Year 9						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Content:</b> What will students know	Expanding Brackets, Volume, Probability, Changing the Subject	Factorising, Loci (& review Constructions), Percentages, Enlargements	Coordinate Geometry, Indices, Efficient use of calculator, Compound Measures, Scatter Graphs	Solving Quadratic Equations, Graphs, Revision of fractions, Sequences, Plans and Elevations	Ratio and Proportion, Simultaneous Equations, Inequalities	Trigonometry, Grouped Data, Time Series, Cumulative Frequency, Arcs and sectors of circles, Angl+T6:Z11 e properties of circles, Quadratic Formula
<b>Skills:</b> What will students be able to do	Understand and use the definition of a function; domain and range of functions. Comprehend and critique mathematical arguments, proofs and justifications of methods and formulae, including those relating to applications of mathematics.					
<b>Other:</b> Literacy/ Numeracy/ Ethos	Mathematical vocabulary is introduced and assessed through the year					
<b>Assessment:</b>	Half-termly test	Half-termly test	Half-termly test	Half-termly test	EOY exam	Half-termly test