



# Curriculum Map

Subject: Mathematics

Year group: 9

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p><b>Content</b></p> <p><i>Declarative Knowledge – ‘Know What’</i></p>	<p><b>Statistics and Probability</b></p> <p>Collecting/interpret data;            Averages and range;            Stem and leaf;            Scatter graphs;            Pie charts;            Venn diagrams;            Probability;            Frequency polygons;            Two way tables;            Probability</p>	<p><b>Geometry and Measure</b></p> <p>Angle properties;            Angles in polygons;            Parallel lines;            Bearings and scale drawings;            Pythagoras’ Theorem;            Trigonometry;            Congruent shapes;            Constructions;            Transformations;            Area, Perimeter and Volume</p>	<p><b>Algebra</b></p> <p>Rules of algebra;            Simplifying expressions;            Expanding brackets;            Factorise expressions;            Solve linear equations;            Inequalities;            Laws of indices;            Formulae;            Sequences;</p>	<p><b>Algebra / Number</b></p> <p>Graphs; <math>y=mx+c</math>;            Conversion graphs;              Properties of number;            HCF and LCM;            Fractions;            Standard form;            Ratio and Proportion</p>	<p><b>Number</b></p> <p>Percentages;            Rounding;            Estimating;            Bounds;</p>	<p><b>Extended Algebra Topics</b></p> <p>Simultaneous equations;            Quadratic graphs;            Real life graphs;            Expanding brackets;            Factorising expressions;</p>
<p><b>Skills</b></p> <p><i>Procedural Knowledge – ‘Know How’</i></p>	<p>Learn how to collect data effectively;            Calculating, interpreting and comparing the averages of data;            Calculate averages from a frequency table;            Construct and interpret all diagrams;            Calculate probabilities from venn diagrams and two way tables</p>	<p>Understand the relationship between interior and exterior angles;            Draw, measure and calculate bearings;            Learn how to find an angle or side in a right angled triangle using trigonometric ratios;            Solve a range of area and volume questions using formulae;</p>	<p>Learn how to expand two brackets;            Solve equations to find unknown values;            Learn how to factorise expressions;            Represent inequalities on a number line;            Solve inequalities to find a range of values;            Understand and use index notation;            Learn how to change the subject of a formula;</p>	<p>Learn how to draw a straight line graph without a table of values;            Calculate the equation of a straight line given the graph or co-ordinates;              Calculate the HCF and LCM of two numbers;            Perform all calculations with fractions;            Convert numbers into and from standard form;</p>	<p>Perform all calculations with percentages, using multipliers and including reverse percentages;            Learn about simple and compound interest;            Learn how to round number to significant figures;            Learn how to estimate calculations;            Learn about errors in measurement and bounds of accuracy</p>	<p>Learn how to solve simultaneous equations using elimination;            Learn how to solve simultaneous equations graphically;            Draw and interpret travel graphs;            Expand double brackets;            Learn how to factorise quadratic expressions and equations</p>



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				Solve problems using numbers in standard form; Solve problems using ratio and proportion		
<b>Key Questions</b>						
<b>Assessment</b>	<b>Statistics and Probability Assessment</b>	<b>Geometry and Measure Assessment</b>	<b>N/A</b>	<b>Algebra Assessment</b>	<b>End of Year Assessments</b>	<b>N/A</b>
<b>Literacy/Numeracy/ SMSC/Character</b>	Understanding and dealing with problem questions. Resilience – working through challenging questions	Building on their resilience, tolerance, initiative and confidence.	Using key mathematical vocabulary, building tolerance and confidence.	Developing problem solving skills – resilience, initiative, confidence.	Understanding and dealing with problem questions. Resilience – working through challenging questions	Understanding and dealing with problem questions. Resilience – working through challenging questions