

	<u>Topic</u>	<u>Key concept – what do I want the students to learn from this unit?</u>	<u>What knowledge will they acquire?</u>
YEAR 7 OVERVIEW			
Y7 - half term 1	Algebra Number Handling data	Sequences and patterns. Four operations. Averages and range. Charts and graphs. Algebraic manipulation	Recognising and describing patterns. Position to term. Term to term. Written methods for four operations with positives, negatives and decimals. Averages and range. Draw and interpret pie charts, bar line graphs and pictograms. Algebraic notation, collecting like terms, expanding and factorising single brackets.
Y7 – half term 2	Number Geometry Ratio and proportion	Rounding and approximation. Perimeter and area of 2D shapes. Surface area and volume of cuboids. Ratio notation and using ratio. Four operations with fractions and decimals.	Rounding to given decimal places, significant figures and power of ten. Perimeter of a 2D shape. Calculating the area of a rectangle, triangle, parallelogram and a trapezium. Surface area of a cuboid and volume of a cuboid. Adding, subtracting, multiplying and dividing with fractions and decimals. Comparing fractions, decimals and percentages. Ratio notation. Simplifying ratios. Ratios in the form 1:n or n:1. Sharing in a ratio.
Y7 – half term 3	Geometry Number Algebra	Properties of angles. Solving linear equations. Understanding and using percentages.	Measuring and drawing angles. Types of angles. Understanding and using the properties of angles in triangles, quadrilaterals and parallel lines.

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			<p>Solving linear equations with one or two steps, which can also include brackets.</p> <p>Calculating the percentage of an amount with or without a calculator.</p> <p>Understanding and using decimal multipliers.</p> <p>Increasing or decreasing amounts by a percentage.</p>
Y7 – half term 4	Algebra Geometry	Using and manipulating formulae. Shapes and constructions. Linear functions.	<p>Substituting into expressions and formulae.</p> <p>Deriving formulae.</p> <p>Recognising 2D and 3D shapes.</p> <p>Understanding rotational symmetry.</p> <p>Drawing and understanding nets of 3D shapes.</p> <p>Drawing and understanding plans and elevations.</p> <p>Plotting coordinates.</p> <p>Solving geometrical problems on coordinate axes.</p> <p>Plotting vertical and horizontal lines on a coordinate grid.</p> <p>Plotting equations of the form $y = mx + c$.</p>
Y7 – half term 5	Geometry Number	Transformations and vectors. Factors, powers and roots. Measures.	<p>Describing movement.</p> <p>Understanding symmetry.</p> <p>Perform and recognise rotations, reflections and translations on a coordinate axes.</p> <p>Recognise and find factors and multiples.</p> <p>Use factor pairs to find factors.</p> <p>Find the HCF and LCM of two or more numbers.</p> <p>Find the product of prime factors in index form of any number.</p> <p>Use prime factors to find HCF or LCM.</p> <p>Perform four operations with money.</p> <p>Understand and use units of time.</p>

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			Use a timetable. Reading scales. Choose and use appropriate units. Convert between different metric units.
Y7 – half term 6	Probability Geometry Algebra Ratio and Proportion Financial project	Volume Algebraic manipulation Budgeting a household project	Surface area of a cuboid and volume of a cuboid. Finding unknown dimensions of a cuboid given the volume or surface area. Algebraic notation, collecting like terms, expanding and factorising single brackets. Understand the income and outgoings of a household. Calculate a monthly budget for a household.