

Key Stage 3 Curriculum Map

	Autumn Half Term 1	Autumn Half Term 2	Spring Half Term 1	Spring Half Term 2	Summer Half Term 1	Summer Half Term 2
Year 7	<p>Themes that will be covered :</p> <p>Number: Place value</p> <ul style="list-style-type: none"> Use place value for decimals, measures and integers of any size. Order positive and negative integers, use the number line as a model for ordering of the real numbers; use the symbols =, ≠, <, >, ≤, ≥ Round numbers and measures to an appropriate degree of accuracy [for example, to a number of decimal places or significant figures] <p>Number - Addition & subtraction</p> <ul style="list-style-type: none"> Use formal written methods for addition and subtraction of integers and decimals. Recognise and use relationships between addition and subtraction including inverse operations. Calculate and solve problems involving perimeter. 	<p>Themes that will be covered :</p> <p>Number - Multiplication & Division</p> <ul style="list-style-type: none"> Multiply and divide by 10, 100 and 1000 Use formal written methods for multiplication and division of integers and decimals. Recognise and use relationships between operations including inverse operations. Use the concepts and vocabulary of prime numbers, factors, common factors and highest common factor (HCF). Use integer powers and associated real roots (square, cube and higher). Recognise powers of 2, 3, 4, 5 Find the prime factor decomposition of a number. Calculate and solve problems involving area of rectangles, triangles and parallelograms. Calculate the mean average. Use approximation through rounding to estimate answers and calculate possible resulting errors expressed using inequality notation $a < x \leq b$ 	<p>Themes that will be covered :</p> <p>Number: Fractions 1</p> <ul style="list-style-type: none"> Represent fractions using diagrams and on a number line. Express one quantity as a fraction of another. Identify and use equivalent fractions. Compare and order fractions; use the symbols =, ≠, <, >, ≤, ≥ Convert between mixed numbers and improper fractions. Simplify fractions. Convert between fractions and decimals Associating a fraction with division. Use the concepts and vocabulary of multiples and lowest common multiple (LCM). Add and subtract any fraction. Fractions with different denominators Find a fraction of an amount. 	<p>Themes that will be covered :</p> <p>Statistics 1</p> <ul style="list-style-type: none"> Understand the data handling cycle. Understand the different types of data. Collect, organise and interpret data. Median, mode and range Consider outliers Draw and interpret bar charts, pictograms and line graphs. <p>Number: Negative numbers</p> <ul style="list-style-type: none"> Use the four operations with negative numbers. Use the order of operations. 	<p>Themes that will be covered :</p> <p>Algebra 1</p> <ul style="list-style-type: none"> Introduction to algebra Use a letter to represent a variable. The difference between an expression, equation, formula, term, function and identity. Form expressions from situations described in words. Algebraic notation Substitute numerical values into formulae and expressions, including scientific formulae. (including examples with negatives) Simplify and manipulate algebraic expressions. Use algebraic methods to solve simple linear equations Generate terms of a sequence. Recognise arithmetic sequences and find the nth term. 	<p>Themes that will be covered :</p> <p>Geometry – Lines & Angles</p> <ul style="list-style-type: none"> Describe, sketch and draw using conventional terms and notations. Derive and illustrate properties of triangles, quadrilaterals and circles. Use a protractor to measure and draw angles. Apply the properties of angles at a point, angles at a point on a straight line, vertically opposite angles. Understand and use alternate and corresponding angles on parallel lines. Use the sum of angles in a triangle and a quadrilateral. Use the sum of angles in a triangle and use it to deduce the angle sum in any polygon, and to derive properties of regular polygons.
	<p>Key Assessments taking place :</p> <p>Numeracy Age and Standardised Score Testing.</p>	<p>Key Assessments taking place :</p> <p>Autumn End of Term Assessment</p>	<p>Key Assessments taking place :</p>	<p>Key Assessments taking place :</p> <p>Spring End of Term Assessment</p>	<p>Key Assessments taking place :</p>	<p>Key Assessments taking place :</p> <p>Summer End of Term Assessment</p>

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Year 8	Themes that will be covered : Revise and Improve <ul style="list-style-type: none"> Four operations Order of operations Negative numbers Fractions Algebra Number - Fractions 2 <ul style="list-style-type: none"> Multiply and divide proper and improper fractions and mixed numbers both positive and negative. Fraction x Integer Fraction x Fraction Fraction ÷ Integer Integer ÷ Fraction Fraction ÷ Fraction All of the above proper, improper, mixed, positive and negative. Find a fraction of an amount. Find the whole amount, given a fraction of the amount. Find a fractional increase and decrease. 	Themes that will be covered : Number – Percentages <ul style="list-style-type: none"> Define percentage as 'number of parts per hundred', interpret percentages and percentage changes as a fraction or a decimal, interpret these multiplicatively. Express one quantity as a percentage of another. Compare two quantities using percentages. Percentages greater than 100% Compare two quantities using percentages. Interpret fractions and percentages as operators, with and without a calculator. Solve problems involving percentage change, including: Percentage increase, decrease and original value problems. Simple interest in financial mathematics. 	Themes that will be covered : Algebra 2 <ul style="list-style-type: none"> Substitute numerical values into formulae and expressions, including scientific formulae. Simplify and manipulate algebraic expressions to maintain equivalence. Expanding products of two or more binomials. Laws of indices. Use algebraic methods to solve linear equations in one variable Equations with brackets. Fractional equations. Use the concepts and vocabulary of inequalities. Represent the solution set to an inequality on a number line. Find the integer solutions of an inequality. Solve linear inequalities in one variable. Rearrange formulae to change the subject 	Themes that will be covered : Geometry – Circles and Area <ul style="list-style-type: none"> Convert between metric units of area. Derive and apply formulae to calculate and solve problems involving area of circles. Derive and apply formulae to calculate and solve problems involving area of composite shapes. Derive and apply formulae to calculate and solve problems involving area of trapeziums. Calculate and solve problems involving perimeters of 2D shapes (including circles). Incorporating algebra, fractions and decimals into area problems. 	Themes that will be covered : Ratio, Proportion & Rates of Change <ul style="list-style-type: none"> Change between related standard units. Use ratio notation. Writing a ratio in its simplest form. Divide a given quantity into two or more parts. Given information about one part, find the whole or other part(s). Understand that a multiplicative relationship between two quantities can be expressed as a ratio or a fraction. Solve problems involving direct and inverse proportion. Draw and interpret pie charts. 	Themes that will be covered : Statistics 2 <ul style="list-style-type: none"> Construct and analyse stem and leaf diagrams. Find the mean, median, mode and range from data given on a table. Geometry – 3D Shapes <ul style="list-style-type: none"> Properties of faces, surfaces, edges and vertices of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres. Use the properties of 3D shapes to solve problems in 3D. Convert between metric units of volume. Solve problems involving volume and surface area Construct plans and elevations of 3D shapes.
	Key Assessments taking place :	Key Assessments taking place : Autumn End of Term Assessment	Key Assessments taking place :	Key Assessments taking place : Spring End of Term Assessment	Key Assessments taking place :	Key Assessments taking place : Summer End of Term Assessment