

		Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 7	Summary of unit	<p>Introduction to algebra</p> <p>Positive & negative numbers</p> <p>Perimeter, Area & Volume</p>	<p>Fractions</p> <p>Working with numbers</p> <p>Statistics</p>	<p>Sequences & functions</p> <p>Decimal numbers</p> <p>Angles in triangles, quadrilaterals & parallel lines</p>	<p>Co-ordinates and graphs</p> <p>Percentages</p> <p>Probability</p>	<p>Symmetry</p> <p>Equations</p> <p>Interpreting data</p>	<p>3D shapes</p> <p>Ratio</p>
	Detail	<p>This topic will involve students in learning the rules of algebra. They will learn how to write algebraic expressions, simplify expressions and substitute values into formulae.</p> <p>Students will learn about negative numbers in real life and carry out calculations incorporating positive and negative numbers.</p> <p>Students will find the area of rectangles, triangles, parallelograms, trapeziums and compound shapes. Students will calculate the surface area and volume of cubes and cuboids.</p>	<p>Students will find equivalent fractions, compare and order fractions, and add and subtract fractions. They will convert between mixed numbers and improper fractions.</p> <p>Students will use square numbers and square roots, round numbers using decimal places and significant figures, and carry out non-calculator methods of multiplication and division to solve problems.</p> <p>Students will find and interpret the mean, median, mode and range. They will use discrete and continuous data and read and interpret statistical diagrams, including grouped frequency tables.</p>	<p>Students will explore sequences and rules, find missing terms and nth terms, and use functions and mappings.</p> <p>Students will learn more about decimals; they will order decimals and complete calculations involving decimals. They will learn how to estimate calculations.</p> <p>Students will delve deeper into geometrical reasoning: they will measure and draw angles, calculate angles in different types of triangles and quadrilaterals and explore angles in parallel lines. They will use geometrical reasoning to solve problems.</p>	<p>Students will plot co-ordinates in all four quadrants and draw graphs from given equations. They will use graphs that represent real life situations.</p> <p>Students will convert between fractions, decimals and percentages. They will calculate percentages with and without a calculator and find percentage increases and decreases.</p> <p>Students will use probability scales, find the probability of combined events and calculate experimental probability.</p>	<p>Students will learn about line symmetry and rotational symmetry. They will reflect, rotate shapes and tessellate shapes.</p> <p>Students will solve simple and more complex equations. They will learn to form equations in order to solve problems.</p> <p>Students will use charts and diagrams to interpret data, including the use of pie charts. They will analyse sets of data by comparing averages.</p>	<p>Students will draw and construct 2D representations of 3D solids using isometric dotty paper. They will create nets of 3D solids and explore the relationship between faces, edges and vertices.</p> <p>Students will learn to use ratio notation. They will simplify ratios, share a quantity into a given ratio, and solve problems involving ratios. They will convert between ratios and fractions.</p>
	Assessment	T1 Assessment Calculator	T2 Assessment Non-calculator	T3 Assessment Non-calculator	T4 Assessment Non-calculator	T5 Assessment Non-calculator	T6 Assessment Calculator

		Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 8	Summary of unit	<p>Negatives, factors, prime factors, powers and roots</p> <p>Angles and Constructions</p> <p>Probability</p>	<p>Percentages</p> <p>Congruent Shapes</p> <p>Further sequences</p> <p>Surface area and volume of a prism</p>	<p>Graphs</p> <p>Powers and significant figures</p> <p>Drawing and interpreting tables and graphs</p>	<p>Algebraic expressions</p> <p>Shape and ratio</p> <p>Fractions and decimals</p>	<p>Direct and indirect proportion</p> <p>Circles</p> <p>Equations and formulae</p>	<p>Comparing statistical distributions</p> <p>Plans and elevations of 3D solids</p> <p>Constructions and loci</p> <p>End of year test and statistical investigation</p>
	Detail	<p>Students will multiply and divide negative numbers, find HCF's and LCM's, use powers and roots and find prime factors.</p> <p>Students will measure, draw and calculate angles in polygons and parallel lines. They will explore the properties of quadrilaterals and learn how to accurately construct polygons. Students will translate shapes and enlarge a shape by a given scale factor.</p> <p>Students will create sample space diagrams in order to calculate probabilities. They will learn how to draw and use Venn diagrams to solve probability problems.</p>	<p>Students will learn how to write one quantity as a percentage of another and how to calculate percentage change.</p> <p>Students will learn how to recognise congruent shapes and solve geometrical problems using congruent triangles.</p> <p>Students will find nth terms of more complex sequences and explore the Fibonacci sequence.</p> <p>Students will learn how to convert between different metric units for both area and volume. They will also calculate the surface area and the volume of a prism.</p>	<p>Students will learn about gradients and explore the connection between the equation of a straight line and the gradient. They will explore the properties of a quadratic graph and draw graphs to illustrate real life situations.</p> <p>Students will multiply and divide negative powers of 10 and round numbers to a given number of significant figures. They will learn to use standard form.</p> <p>Students will learn to construct and interpret scatter graphs. They will draw and use lines of best fit to understand the idea of correlation.</p>	<p>Students will simplify expressions and expand brackets. They will learn to write algebraic expressions involving powers.</p> <p>Students will learn how to use ratio to compare lengths, areas and volumes, of 2D and 3D shapes. They will enlarge shapes using fractional and negative scale factors, and use different map scales.</p> <p>Students will add, subtract, multiply and divide fractions, mixed numbers and decimals.</p>	<p>Students will learn how to solve problems involving direct and indirect proportion. They will represent proportions of quantities using graphs and algebra.</p> <p>Students will identify the parts of a circle. They will calculate the circumference and area of a circle. They will calculate the perimeter and area of semicircles and sectors of circles.</p> <p>Students will solve a range of equations involving brackets and fractions and learn how to rearrange formulae. They will learn how to use graphs to solve equations.</p>	<p>Students will use grouped frequency tables and construct frequency polygons. They will calculate statistics from given data and use this information to compare distributions. Students will learn to recognise misleading graphs.</p> <p>Students will learn how to draw plans and elevations of 3D objects.</p> <p>Students will learn how to complete mathematical constructions and how to draw loci.</p> <p>Students will collect, present and interpret data in order to test an hypothesis.</p>
	Assessment	T1 Assessment Non-calculator	T2 Assessment Calculator	T3 Assessment Calculator	T4 Assessment Non-calculator	T5 Assessment Calculator	T6 Assessment Non-calculator

		Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 9	Summary of unit	<p>Percentages</p> <p>Equations and Formulae</p> <p>Polygons</p>	<p>Using Data</p> <p>Applications of Graphs</p> <p>Pythagoras' Theorem</p>	<p>Fractions</p> <p>Algebra</p> <p>Standard Form</p> <p>Upper and lower bounds</p>	<p>Surface Area and Volume of Cylinders</p> <p>Solving Equations Graphically</p>	<p>Compound Units</p> <p>Trigonometry</p>	<p>Venn Diagrams and Frequency Trees</p> <p>Other Sequences</p> <p>Proportion</p> <p>Circle Theorems</p>
	Detail	<p>Students will learn to calculate simple interest, percentage increases and decreases, reverse percentages, repeated percentage change and compound interest.</p> <p>Students will learn to expand brackets, factorise algebraic expressions and solve equations with fractions.</p> <p>Students will explore the properties of polygons, find internal and external angles of regular polygons and learn why some polygons tessellate and some do not.</p>	<p>Students will learn about scatter graphs and correlation. Draw and interpret cumulative frequency diagrams and estimate the mean from grouped data. They will use two-way tables to solve problems.</p> <p>Students will learn about step graphs, time graphs and exponential growth.</p> <p>Students will discover Pythagoras' Theorem and use it to find missing sides in a right-angled triangle. They will use Pythagoras' Theorem to solve problems.</p>	<p>Students will review addition, subtraction, multiplication and division of fractions and mixed numbers. They use this knowledge and understanding to complete calculations using simple algebraic fractions.</p> <p>Students will learn how to expand the product of two and more brackets, factorise quadratic expressions and find the difference of two squares.</p> <p>Students will learn how to write numbers in standard form, and complete calculations involving standard form.</p> <p>They will learn how to calculate upper and lower bounds.</p>	<p>Students will learn how to find the surface area and volume of a cylinder and of composite solids involving cylinders.</p> <p>Students will learn how to plot straight line graphs with and without a table. They will use graphs to solve simultaneous equations, quadratic equations and cubic equations.</p>	<p>Students will calculate measures of speed, distance, time, density, mass and volume.</p> <p>Students will learn how to find trigonometric ratios. They will use trigonometric ratios to find missing angles and lengths in right-angled triangles. They will use trigonometry to solve problems.</p>	<p>Students will use Venn diagrams and frequency trees to solve problems.</p> <p>Students will learn how to find nth terms of quadratic sequences and those involving fractions and indices. Students will explore and generalise Fibonacci type sequences.</p> <p>Students will convert between fractions, ratios and percentages. They will be able to find the proportion of a shape that is shaded and solve problems involving proportion.</p> <p>Some students will explore the circle theorems and use these theorems to solve problems.</p>
	Assessment	T1 Assessment Calculator	T2 Assessment Calculator	T3 Assessment Non-calculator	T4 Assessment Calculator	T5 Assessment Calculator	T6 Assessment Calculator and non-calculator