

Year 9 – Pathway D	Unit	Key Knowledge learnt	Cross Curricular Links	Real world applications
Half Term 1	Intervention	Main focus on intervention from assessment taken	N/A	N/A
Half Term 2	Number & Fractions	<ul style="list-style-type: none"> • Negative number & number lines • Add & subtract integers • Multiply & divide with integers • Combined operations • Quantities as fractions • Equivalent Fractions • Improper & mixed numbers • Compare fractions • Add & subtract fractions • Multiply & divide fractions • Combined operations with fractions 	<p>DT – particularly cooking, when trying to half or double recipes.</p> <p>Science/Geography (L4L) – negative numbers in relation to temperature.</p>	<p>Negative numbers are used quite frequently in the real world. Without people realising. From checking the temperature daily, to checking a bank balance in debit.</p> <p>Fractions are used in day-to-day routines, from sharing costs when out for a meal, to sharing the meal itself (pizza between friends).</p>
Half Term 3	Decimals & Percentages	<ul style="list-style-type: none"> • Place value with decimals • Convert fractions & decimals • Compare fractions & decimals • Round decimals • Add & subtract • Multiplying & divide decimals • Combined operations with decimals • Meaning of percentages • Percentages of a quantity • Increase and decrease a percentage 	<p>Science – when calculating smaller amounts of substances within an experiment.</p> <p>DT – used to calculate finer measurements.</p> <p>All subjects – Percentages – used to calculate scores in tests.</p>	<p>Percentages are greatly used in Real world applications. This may consist of an increase in pay in the workplace, to purchasing an item in a sale.</p> <p>Decimals tend to be used with anything concerning money.</p>
Half Term 4	Ratio & Algebra	<ul style="list-style-type: none"> • Idea of ratio • Relationship between ratio & fractions • Equivalent ratio & simplified form • Application of ratio • Ratio of 3 quantities • Maps & scales • Letters to represent numbers • Substitution • Writing algebraic expressions • Collecting like terms • Expressions with brackets 	<p>Geography – use of maps and scales.</p> <p>IT – algebra can be used in the development of code.</p>	<p>Algebra is needed in many spheres of life without people even knowing it. Algebra is frequently used everywhere in the world. It is greatly used to understand the economy and can be used as a helpful tool when breaking down individual cost. Take for example you know the cost for 3 items but only want to purchase one. Algebra can solve this for you.</p>

Half Term 5	Geometry	<ul style="list-style-type: none"> • Intro to angles • Types of angles • Properties of angles • Unknown angles • Parallel Lines & angle properties • Perimeter & area of 2d shapes • Circumference & area of a circle • Perimeter & area problems of composite shapes • Nets of prisms & cylinders • Volume and surface area of prisms & cylinders 	<p>Grand Designs/L4L - creation of own buildings with a range of angles, shapes, and sizes; transcription for 2D shape to 3D shape.</p> <p>DT/Art - use and creation of 2D and 3D shapes.</p>	<p>Geometry is one of the key concepts in Mathematics. It entails such ideas as lines, shapes, angles, and curves. Wherever one looks around, he or she is likely to see geometric figures. Geometry is used in many workplaces e.g., a Plumber using their knowledge of pipes systems (cylinders), using measurement knowledge and angle facts to help install the necessary parts. An interior designer uses a lot of Geometry. They will use their knowledge on shape, space, and measurements within their designs.</p>
Half Term 6	Algebra & Statistics	<ul style="list-style-type: none"> • Equation in one variable • Writing equations to solve problems • Inequalities • Line graphs, Scatter graphs, Pie charts • Mean, mode, median & range 	<p>Geography – climate graphs, population pyramids, representation of data.</p> <p>Science – graphical representation of data.</p>	<p>Graphs are used greatly in the stock market. Information obtained in graphs make it easier for people to understand the process of items increasing or decreasing in value. Graphs also allow Statisticians to help solve business problems and provide relevant data where needed.</p>
Assessments		<ul style="list-style-type: none"> • 4 x large exams per year (2 calc, 2 non calc) • X2 GL assessments • X6 End of term content tests 		