

Year 8 Curriculum Map: Maths

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Unit Title & Assessment Task	Proportional Reasoning Half-Termly Cumulative Assessment	Representations Half-Termly Cumulative Assessment	Algebraic Techniques Half-Termly Cumulative Assessment	Developing Number Half-Termly Cumulative Assessment	Developing Geometry Half-Termly Cumulative Assessment	Reasoning with Data Half-Termly Cumulative Assessment
Key Knowledge/ Skills	<p>To be able to share values in a ratio, given the total or part, exploring its applications to form conjectures with shape.</p> <p>To be able to solve problems with directed proportion, including currency and enlarging shapes.</p> <p>To be able to multiply and divide fractions, simplifying calculations in mixed number form.</p>	<p>To be able to work with coordinates in the Cartesian plane, drawing and interpreting linear graphs.</p> <p>To be able to draw and interpret real-life graphs, including scatter graphs, identifying types of data and representing data in a variety of formats.</p> <p>To be able to find probabilities from sample-space diagrams, tables and frequency trees to solve problems.</p>	<p>To be able to expand and factorise expressions, solving two-step equations and inequalities, including in context.</p> <p>To be able to find algebraic rules for linear sequences, and use these to generate sequences.</p> <p>To be able to use a variety of algebraic techniques to manipulate expressions including powers.</p>	<p>To be able to find fractions and percentages of amounts, both with and without a calculator, exploring real-life scenarios.</p> <p>To be able to write numbers in standard form and calculate with numbers given in standard form.</p> <p>To be able to round numbers and estimate answers to calculations.</p> <p>To be able to convert metric units of length, mass and volume.</p>	<p>To be able to reason with angles in parallel lines and polygons, including the forming and solving of equations.</p> <p>To be able to find the area of more complex 2D shapes, such as circles and trapezia through developing geometric problem-solving skills.</p> <p>To be able to describe line symmetry and use this to reflect shapes on a grid.</p>	<p>To be able to present and interpret data given in appropriate formats, including line/bar charts, pie charts and frequency tables.</p> <p>To be able to find and use averages and range to compare and contrast data given.</p>
Rationale:	This unit builds upon fraction and number work met at KS2 and Year 7, developing student confidence in	This unit builds upon prior work in the Cartesian plane, allowing students to draw graphs.	This unit develops student's ability to manipulate algebraic expressions and	In this unit, students develop their ability to reason with number, expanding on their	This unit supports students geometric reasoning, developing their angle rules and	This unit allows students to explore the different types of data, data collection methods, and how to

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	solving problems with ratios and fractions.	Students will extend knowledge of graphs to explore data and probability in context.	equations, recapping work from Year 7.	understanding of fractions. Students will enhance their knowledge of multiplying/dividing by powers of 10 to convert metric units.	work on area met in Year 7. Students will further develop an understanding of the properties of shape to include symmetry of shapes and reflection.	identify misleading data. Students will explore how to construct and interpret appropriate tables, charts, and diagrams for ungrouped and grouped data.
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