

Year 9 Curriculum Map: Maths

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Unit Title & Assessment Task	Reasoning with Algebra Half-Termly Cumulative Assessment	Constructing in 2 and 3 Dimensions Half-Termly Cumulative Assessment	Reasoning with Number Half-Termly Cumulative Assessment	Reasoning with Geometry Half-Termly Cumulative Assessment	Reasoning with Proportion Half-Termly Cumulative Assessment	Representations Half-Termly Cumulative Assessment
Key Knowledge/ Skills	<p>To be able to identify and recognise key components of linear graphs, drawing graphs, including parallel and perpendicular lines.</p> <p>To be able to form and solve equations and inequalities in context, rearranging formulae where appropriate.</p> <p>To be able to form algebraic conjectures and prove or disprove given statements in a range of different mathematical areas.</p>	<p>To be able to represent 3-D shapes using 2-D to help find the volume and surface area.</p> <p>To be able to identify the key properties of shape in order to accurately construct them, including loci in context.</p>	<p>To be able to work with number in a range of contexts, including finding HCF/LCM, calculating with fractions and standard form.</p> <p>To be able to find a percentage of an amount, with and without a calculator.</p> <p>To be able to apply percentage work to contextual problems, including money and simple/compound interest.</p>	<p>To be able to solve problems with angles, deducing angle facts and conjectures about shape.</p> <p>To be able to rotate and translate a shape on a grid, looking for points of invariance.</p> <p>To be able to identify and use Pythagoras' Theorem in a range of mathematical contexts.</p>	<p>To be able to identify properties of similar shapes and use these to enlarge a shape on a grid.</p> <p>To be able to solve problems involving ratio and proportion, including direct and inverse.</p> <p>To be able to find rates of change, including proportion and flow problems.</p>	<p>To be able to use different representations for probability, including tree diagrams.</p> <p>To be able to use algebraic representations to draw a range of linear and non-linear graphs, and use these representations to solve problems.</p>
Rationale:	In this unit, students will build upon prior knowledge of linear graphs and equations to form mathematical statements of truth,	In this unit, students will develop their knowledge of 2D area, extending into surface area and volume in 3D	In this unit, students will recap and extend their KS2/3 knowledge of number, including working with negative numbers, finding	In this unit, students will further develop their reasoning skills from Year 7/8 with geometry to solve more complex angle	In this unit, students will expand their knowledge of proportion to similar shapes and enlargement, solving	In this unit, students will develop prior learning on representations of probability and data, as well as recapping

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	and explore how to prove or disprove a simple statement.	shapes, solving problems in context. Students will also develop their knowledge of the properties of shapes to construct shapes using mathematical equipment.	factors and multiples, and calculating with fractions. Students will develop their knowledge of percentages, and how this applies to tax and interest within the real-world.	problems, as well as rotating and translating shapes on a grid. Students will discover Pythagoras' theorem and explore its applications in wider mathematics.	problems with ratio and direct/inverse proportion.	algebraic representations for abstract problems.
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