

Algebra



<p>Essential knowledge for a mathematician:</p> <ul style="list-style-type: none"> • Knowledge of place value • Knowledge of calculation using all four operations • Knowledge of fractions and percentages • Knowledge of geometry (shape, space and measure) • Knowledge of statistics • Knowledge of ratio and proportion • Knowledge of algebra 	<p>Essential skills for a mathematician:</p> <ul style="list-style-type: none"> • To problem solve • To reason about mathematical ideas and concepts • To make links and transfer skills across the mathematical curriculum, other areas of the curriculum and in real life • To be excited and inquisitive about maths
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EQUATIONS					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<i>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$ (copied from Addition and Subtraction)</i>	<i>recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems. (copied from Addition and Subtraction)</i>	<i>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. (copied from Addition and Subtraction)</i> <i>solve problems, including missing number problems, involving multiplication and division, including integer scaling (copied from Multiplication and Division)</i>		<i>use the properties of rectangles to deduce related facts and find missing lengths and angles (copied from Geometry: Properties of Shapes)</i>	<i>express missing number problems algebraically</i>
	<i>recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 (copied from Addition and Subtraction)</i>				<i>find pairs of numbers that satisfy number sentences involving two unknowns</i>
<i>represent and use number bonds and related subtraction facts within 20 (copied from Addition and Subtraction)</i>					<i>enumerate all possibilities of combinations of two variables</i>
FORMULAE					
			<i>Perimeter can be expressed algebraically as $2(a + b)$ where a and b are the dimensions in the same unit. (Copied from NSG measurement)</i>		<i>use simple formulae recognise when it is possible to use formulae for area and volume of shapes (copied from Measurement)</i>
SEQUENCES					
<i>sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening (copied from Measurement)</i>	<i>compare and sequence intervals of time (copied from Measurement) order and arrange combinations of mathematical objects in patterns (copied from Geometry: position and direction)</i>				<i>generate and describe linear number sequences</i>