



Algebra

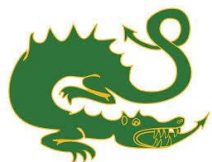
Equations					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Solve one-step problems that involve addition and subtraction, including missing number problems such as $7 - ? = 5$.</p> <p><i>(also features on Addition and Subtraction)</i></p>	<p>Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</p> <p><i>(also features on Addition and Subtraction)</i></p>	<p>Solve problems, including missing number problems, using known number facts, place value and more complex addition and subtraction.</p> <p><i>(also features on Addition and Subtraction)</i></p>		<p>Use the properties of rectangles to deduce related facts and find missing lengths and angles.</p> <p><i>(also features on Geometry: Properties of Shapes)</i></p>	<p>Express missing number problems algebraically.</p>
<p>Represent and use number bonds and related subtraction facts within 20.</p> <p><i>(also features on Addition and Subtraction)</i></p>	<p>Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.</p> <p><i>(also features on Addition and Subtraction)</i></p>	<p>Solve problems, including missing number problems, involving multiplication and division.</p> <p><i>(also features on Multiplication and Division)</i></p>			<p>Find pairs of numbers that satisfy number sentences involving two unknowns.</p>
					<p>Enumerate possibilities of</p>



Algebra

					combinations of two variables.
<p>Connected Calculations</p> <p>11 = 3+8 12 = 4+8 13 = ?+8 14 = ?+8</p> <p>What numbers go in the boxes? Can you continue this sequence?</p>	<p>Connected Calculations</p> <p>Put the numbers 19, 15 and 4 into the boxes to make the number sentences correct.</p> <p>? = ? - ? ? = ? + ?</p>	<p>Connected Calculations</p> <p>Put the numbers 3, 12 and 36 into the boxes to make the number sentences correct.</p> <p>? = ? x ? ? = ? ÷ ?</p>	<p>Connected Calculations</p> <p>Put the numbers 7.2, 8 and 0.9 into the boxes to make the number sentences correct.</p> <p>? = ? x ? ? = ? ÷ ?</p>	<p>Connected Calculations</p> <p>The number sentence below represents the angles in degrees of an isosceles triangle.</p> <p>A+B+C = 180 degrees A+B are equal and are multiples of 5. Give 3 examples of what the 3 angles could be.</p>	<p>Connected Calculations</p> <p>p and q each stand for whole numbers.</p> <p>p + q = 1000 and p is 150 greater than q.</p> <p>Work out the values of p and q.</p>

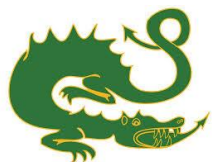
Formulae					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			Perimeter can be expressed algebraically as $2(a + b)$ where a and b are the dimensions in the same unit.	Use letters to represent and unknown quantity.	Use simple formulae and recognise when it is possible to calculate area and volume of shapes.
			Area can be expressed as $h \times w$ (or $l \times b$).		



Algebra

			<p>Undoing</p> <p>If the longer length of a rectangle is 13cm and the perimeter is 36cm, what is the length of the shorter side?</p> <p>Explain how you reached your answer.</p>	<p>Undoing</p> <p>The perimeter of a rectangular garden is between 40 and 50 metres.</p> <p>What could the dimensions of the garden be?</p>	<p>Undoing</p> <p>A diagram represents two rectangular fields that are next to each other.</p> <p>Field A is twice as long as Field B but their widths are both 7.6 metres. If the perimeter of the small field is 23m what is the perimeter of the entire shape including both fields.</p>
--	--	--	---	--	--

Sequencing					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Sequence events in chronological order using language such as: before, after, next, first, today etc.</p> <p><i>(also features on Measurement)</i></p>	<p>Compare and sequence intervals of time.</p> <p><i>(also features on Measurement)</i></p>				<p>Generate and describe linear number sequences.</p>



Algebra

	<p>Order and arrange combinations of mathematical objects in patterns.</p> <p><i>(Also features on Geometry: Position and Direction)</i></p>				
	<p>True or false?</p> <p>Explain:</p> <p>The largest three digit number that can be made from the digits 2, 4 and 6 is 265. Is this true or false?</p>				<p>Generalising</p> <p>Write a formula for the 10th, 100th and nth terms of the sequences below.</p> <p>4, 8, 12, 16</p> <p>0.4, 0.8, 1.2, 1.6</p>

It should be noted that although algebraic notation is not introduced until Year 6, algebraic thinking starts much earlier as exemplified by the missing number objectives in Years 1-3.



mean	range
substitution	mode
equation	rule

In partnership with:



Vocabulary					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
missing number calculations problems Linked to addition and subtraction vocabulary.	Inverse Missing number calculations Linked to addition and subtraction vocabulary.	Links to vocabulary in: addition and subtraction multiplication and division measurement progression maps	Links to vocabulary in Geometry progression map.	Links to vocabulary in Geometry progression map.	symbol formula formulae algebra equation variable expression equivalent expression evaluate