

# Ratio and proportion, algebra

# Ratio and proportion

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					<ul style="list-style-type: none"><li>• solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts</li><li>• solve problems involving the calculation/use of percentages for comparison</li><li>• solve problems involving similar shapes where the scale factor is known or can be found</li><li>• solve problems involving unequal sharing and grouping using knowledge of fractions and multiples</li></ul>
					Spring 1

# Algebra

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as <math>7 = \square - 9</math></li> </ul>	<ul style="list-style-type: none"> <li>recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems</li> </ul>	<ul style="list-style-type: none"> <li>solve problems, including missing number problems</li> </ul>			<ul style="list-style-type: none"> <li>use simple formulae</li> <li>generate and describe linear number sequences</li> <li>express missing number problems algebraically</li> <li>find pairs of numbers that satisfy an equation with two unknowns</li> <li>enumerate possibilities of combinations of two variables</li> </ul>
					Spring 2

Note – although formal algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the ‘missing number’ objectives from Y1/2/3

# Year 6 RTP Addition, subtraction, multiplication and division

Ready to progress criteria	Block	Steps
6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number).		See under Addition and subtraction, multiplication and division
6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.		See under Addition and subtraction, multiplication and division
6AS/MD-3 Solve problems involving ratio relationships.	Spring 1	5 – Scale drawing 6 – Use scale factors 7 – Similar shapes 8 – Ratio problems 9 – Proportion problems 10 – Recipes
6AS/MD-4 Solve problems with 2 unknowns.	Spring 2	9 – Find pairs of values 10 – Solve problems with two unknowns