

# Maths Success in Year 5

<p>[KEY] I can solve problems including scaling by simple fractions and problems involving simple rates.</p>	<p>I know whether a number up to 100 is prime and recall prime numbers up to 19.</p>	<p>[KEY] I can add and subtract larger numbers in my head.</p>	<p>I round numbers to check the accuracy of my solution.</p>	<p>I can multiply 4 digit numbers by a one- or two-digit number using a written method, including long multiplication for two-digit numbers.</p>	<p>[KEY] I can compare and order fractions whose denominators are all multiples of the same number.</p>	
	<p>I multiply and divide numbers mentally drawing upon my times table knowledge and other number facts.</p>	<p>I can round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.</p>	<p>[KEY] I can read, write, order and compare numbers to at least 1 000 000 and know the value of each digit.</p>	<p>I can solve number problems and practical problems that involve numbers up to 1000000, negative numbers, rounding or jumping in steps.</p>	<p>I can divide 4 digit numbers by a one-digit number using the written method of short division and find the remainder.</p>	
<p>I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</p>	<p>I can read Roman numerals to 1000 (M) and recognise years written in Roman numerals.</p>	<p>I count forwards or backwards in steps 10, 100, 1000, 10000 or 100000 for any given number up to 1000000.</p>	<p>[KEY] I can use negative numbers in my work and can count backwards and forwards to and from negative numbers.</p>	<p>[KEY] I can add and subtract whole numbers with more than 4 digits using written methods such as column addition and subtraction.</p>	<p>I know what square numbers and cube numbers are, including the notation for squared (2) and cubed (3).</p>	
	<p>[KEY] I can solve multiplication and division problems using my knowledge of factors and multiples, squares and cubes.</p>	<p>[KEY] I can identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</p>	<p>I can solve addition and subtraction multi-step problems, deciding which operations and methods to use and why.</p>	<p>I know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.</p>	<p>I can solve more difficult problems involving addition, subtraction, multiplication and division and a combination of these.</p>	

<p>[KEY] I can draw a given angle (such as 47°), and then measure them in degrees (°).</p>	<p>I can change metric units to become imperial units such as inches, pounds and pints.</p>	<p>[KEY] I can read, write, order and compare numbers with up to three decimal places.</p>	<p>I can solve problems involving numbers with up to three decimal places.</p>	<p>[KEY] I can calculate the perimeter of multi-shape shapes in centimetres and metres.</p>	<p>I know one whole turn - or a set of angles all around a point - measure a total of 360°.</p>	
	<p>[KEY] I can calculate the area of rectangles in square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes.</p>	<p>I use diagrams and some fraction tools to multiply proper fractions (<math>\frac{7}{10}</math>) and mixed numbers (<math>1\frac{7}{10}</math>) by whole numbers.</p>	<p>I can name and write equivalent fractions of a given fraction, and show these in a drawing (including tenths and hundredths).</p>	<p>[KEY] I can read and write decimal numbers as fractions [for example, <math>0.71 = \frac{71}{100}</math>].</p>	<p>I can estimate volume [for example, using 1 cm<sup>3</sup> blocks to build cuboids] and capacity [for example, using water].</p>	
<p>I can convert between the units of time.</p>	<p>I know what thousandths are and how to use them with tenths, hundredths and decimals.</p>	<p>I know what mixed numbers and improper fractions are and I can convert from one to the other [for example, <math>\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}</math>].</p>	<p>I can add and subtract fractions with the same denominator and denominators that are multiples of the same number.</p>	<p>I can round decimals with two decimal places to the nearest whole number and to one decimal place.</p>	<p>I can solve more difficult problems which involve units of measurement, decimal numbers and scales.</p>	
	<p>I can identify 3-D shapes, including cubes and other cuboids, from 2-D drawings.</p>	<p>[KEY] I work on problems which require knowing percentage and decimal equivalents of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{5}</math>, <math>\frac{2}{5}</math>, <math>\frac{4}{5}</math> and those fractions with a denominator of a multiple of 10 or 25.</p>	<p>I know what the per cent symbol is (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal.</p>	<p>[KEY] I can convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).</p>	<p>I know that angles are measured in degrees and I can estimate and compare acute, obtuse and reflex angles.</p>	

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		[KEY] I know regular shapes have equal sides and angles and irregular shapes do not have equal sides and angles.	I know that a straight line - or angles that add up to a straight line - measure $180^\circ$ .	I can reflect or translate a shape on a grid.	
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	I can solve problems using a line graph to find the answers.	I can identify multiples of $90^\circ$ (right angles).	I can find the missing lengths and angles of a rectangle.	[KEY] I can find the information I need from a timetable or large table of data.	
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