

Mathematics

Key Learning Indicators of Performance: Year 2



Number – number and place value	Number – addition and subtraction	Number – multiplication and division
<ul style="list-style-type: none"> ▶ Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward. ▶ Read and write numbers to at least 100 in numerals and in words. ▶ <u>Recognise the place value of each digit in a two-digit number (tens, ones).</u> ▶ <u>Identify, represent and estimate numbers using different representations, including the number line.</u> ▶ <u>Partition numbers in different ways (e.g. $23 = 20 + 3$ and $23 = 10 + 13$).</u> ▶ <u>Compare and order numbers from 0 up to 100; use <, > and = signs.</u> ▶ <u>Find 1 or 10 more or less than a given number.</u> ▶ <u>Round numbers to at least 100 to the nearest 10.</u> ▶ <u>Understand the connection between the 10 multiplication table and place value.</u> ▶ <u>Describe and extend simple sequences involving counting on or back in different steps.</u> ▶ Use place value and number facts to solve problems. 	<ul style="list-style-type: none"> ▶ <i>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting).</i> ▶ <i>Select a mental strategy appropriate for the numbers involved in the calculation.</i> ▶ Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. ▶ <i>Understand subtraction as take away and difference (how many more, how many less/fewer).</i> ▶ <u>Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 (bonds totalling 5, 10 and 20).</u> ▶ <u>Recall and use number bonds for multiples of 5 totalling 60 (to support telling time to nearest 5 minutes).</u> ▶ <u>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:</u> <ul style="list-style-type: none"> - <u>a two-digit number and ones.</u> - <u>a two-digit number and tens.</u> - <u>two two-digit numbers.</u> - <u>adding three one-digit numbers.</u> ▶ Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. ▶ <u>Solve problems with addition and subtraction including with missing numbers:</u> <ul style="list-style-type: none"> - <u>using concrete objects and pictorial representations, including those involving numbers, quantities and measures.</u> - applying their increasing knowledge of mental and written methods. 	<ul style="list-style-type: none"> ▶ <u>Understand multiplication as repeated addition and arrays.</u> ▶ <u>Understand division as sharing and grouping and that a division calculation can have a remainder.</u> ▶ Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. ▶ <u>Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.</u> ▶ <u>Derive and use doubles of simple two-digit numbers (numbers in which the ones total less than 10).</u> ▶ <u>Derive and use halves of simple two-digit even numbers (numbers in which the tens are even).</u> ▶ <u>Calculate mathematical statements for multiplication using repeated addition) and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs.</u> ▶ <u>Solve problems involving multiplication and division (including those with remainders), using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.</u>

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Number – fractions	Geometry – properties of shapes	Measurement
<ul style="list-style-type: none"> ▶ <i>Understand and use the terms numerator and denominator.</i> ▶ <i>Understand that a fraction can describe part of a set.</i> ▶ <i>Understand that the larger the denominator is, the more pieces it is split into and therefore the smaller each part will be.</i> ▶ <i>Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity.</i> ▶ <i>Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.</i> ▶ <i>Count on and back in steps of $\frac{1}{2}$ and $\frac{1}{4}$.</i> 	<ul style="list-style-type: none"> ▶ <i>Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.</i> ▶ <i>Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.</i> ▶ <i>Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid].</i> <p style="text-align: center;">Geometry – position and direction</p> <ul style="list-style-type: none"> ▶ <i>Order/arrange combinations of mathematical objects in patterns/sequences.</i> ▶ <i>Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).</i> 	<ul style="list-style-type: none"> ▶ <i>Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity and volume (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels (within children's place value competence).</i> ▶ <i>Compare and order lengths, mass, volume/capacity and record the results using >, < and =.</i> ▶ <i>Recognise and use symbols for pounds (£) and pence (p).</i> ▶ <i>Combine amounts to make a particular value.</i> ▶ <i>Find different combinations of coins that equal the same amounts of money.</i> ▶ <i>Compare and sequence intervals of time.</i> ▶ <i>Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.</i> ▶ <i>Know the number of minutes in an hour and the number of hours in a day.</i> ▶ <i>Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change and measures (including time).</i>
		<p style="text-align: center;">Statistics</p> <ul style="list-style-type: none"> ▶ <i>Compare and sort objects, numbers and common 2-D and 3-D shapes and everyday objects.</i> ▶ <i>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</i> ▶ <i>Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</i> ▶ <i>Ask and answer questions about totalling and comparing categorical data.</i>

