

# Key Learning in Mathematics – Year 2

<p><b>Number – number and place value</b></p> <ul style="list-style-type: none"> <li>Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward</li> <li>Read and write numbers to at least 100 in numerals and in words</li> <li>Recognise the place value of each digit in a two-digit number (tens, ones)</li> <li>Identify, represent and estimate numbers using different representations, including the number line</li> <li>Partition numbers in different ways (e.g. <math>23 = 20 + 3</math> and <math>23 = 10 + 13</math>)</li> <li>Compare and order numbers from 0 up to 100; use <math>&lt;</math>, <math>&gt;</math> and <math>=</math> signs</li> <li>Find 1 or 10 more or less than a given number</li> <li>Round numbers to at least 100 to the nearest 10</li> <li>Understand the connection between the 10 multiplication table and place value</li> <li>Describe and extend simple sequences involving counting on or back in different steps</li> <li>Use place value and number facts to solve problems</li> </ul>	<p><b>Number – addition and subtraction</b></p> <ul style="list-style-type: none"> <li>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting)</li> <li>Select a mental strategy appropriate for the numbers involved in the calculation</li> <li>Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot</li> <li>Understand subtraction as take away and difference (how many more, how many less/fewer)</li> <li>Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</li> <li>Recall and use number bonds for multiples of 5 totalling 60 (to support telling time to nearest 5 minutes)</li> <li>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> <li>a two-digit number and ones</li> <li>a two-digit number and tens</li> <li>two two-digit numbers</li> <li>adding three one-digit numbers</li> </ul> </li> <li>Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems</li> <li>Solve problems with addition and subtraction including with missing numbers: <ul style="list-style-type: none"> <li>using concrete objects and pictorial representations, including those</li> </ul> </li> </ul>	<p><b>Number – multiplication and division</b></p> <ul style="list-style-type: none"> <li>Understand multiplication as repeated addition</li> <li>Understand division as sharing and grouping and that a division calculation can have a remainder</li> <li>Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot</li> <li>Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</li> <li>Derive and use doubles of simple two-digit numbers (numbers in which the ones total less than 10)</li> <li>Derive and use halves of simple two-digit even numbers (numbers in which the tens are even)</li> <li>Calculate mathematical statements for multiplication using repeated addition) and division within the multiplication tables and write them using the multiplication (<math>\times</math>), division (<math>\div</math>) and equals (<math>=</math>) signs</li> <li>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</li> </ul>
<p><b>Number – fractions</b></p> <ul style="list-style-type: none"> <li>Understand and use the terms numerator and denominator</li> <li>Understand that a fraction can describe part of a set</li> <li>Understand that the larger the denominator is, the more pieces it is split into and therefore the smaller each part will be</li> <li>Recognise, find, name and write fractions <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math> and <math>\frac{3}{4}</math> of a length, shape, set of objects or quantity</li> <li>Write simple fractions for example, <math>\frac{1}{2}</math> of 6 = 3 and recognise the equivalence of <math>\frac{2}{4}</math> and <math>\frac{1}{2}</math></li> <li>Count on and back in steps of <math>\frac{1}{2}</math> and <math>\frac{1}{4}</math></li> </ul>	<p><b>Geometry – properties of shapes</b></p> <ul style="list-style-type: none"> <li>Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line</li> <li>Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces</li> <li>Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]</li> </ul> <p><b>Geometry – position and direction</b></p> <ul style="list-style-type: none"> <li>Order/arrange combinations of mathematical objects in patterns/sequences</li> <li>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)</li> </ul> <p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>Compare and sort objects, numbers and common 2-D and 3-D shapes and everyday objects</li> <li>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables</li> <li>Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity</li> <li>Ask and answer questions about totalling and comparing categorical data</li> </ul>	<p><b>Measurement</b></p> <ul style="list-style-type: none"> <li>Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (<math>^{\circ}\text{C}</math>); capacity and volume (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels</li> <li>Compare and order lengths, mass, volume/capacity and record the results using <math>&gt;</math>, <math>&lt;</math> and <math>=</math></li> <li>Recognise and use symbols for pounds (£) and pence (p)</li> <li>Combine amounts to make a particular value</li> <li>Find different combinations of coins that equal the same amounts of money</li> <li>Compare and sequence intervals of time</li> <li>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</li> <li>Know the number of minutes in an hour and the number of hours in a day</li> <li>Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change and measures (including time)</li> </ul>