# Key Learning in Mathematics – Year 2

| Number – number and place value | Number – addition and subtraction | Number – multiplication and division |
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| • Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.<br>• Read and write numbers to at least 100 in numerals and in words.<br>• Recognise the place value of each digit in a two-digit number (tens, ones).<br>• Identify, represent and estimate numbers using different representations, including the number line.<br>• *Partition numbers in different ways (e.g. 23 = 20 + 3 and 23 = 10 + 13).*<br>• Compare and order numbers from 0 up to 100; use <, > and = signs.<br>• *Find 1 or 10 more or less than a given number.*<br>• *Round numbers to at least 100 to the nearest 10.*<br>• *Understand the connection between the 10 multiplication table and place value.*<br>• *Describe and extend simple sequences involving counting on or back in different steps.*<br>• Use place value and number facts to solve problems. | • *Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting).*<br><br>• *Select a mental strategy appropriate for the numbers involved in the calculation.*<br><br>• Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.<br><br>• *Understand subtraction as take away and difference (how many more, how many less/fewer).*<br><br>• Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.<br><br>• *Recall and use number bonds for multiples of 5 totalling 60 (to support telling time to nearest 5 minutes).*<br><br>• Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:<br><br>  – a two-digit number and ones.<br>  – a two-digit number and tens.<br>  – two two-digit numbers.<br>  – adding three one-digit numbers.<br><br>• Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.<br>• Solve problems with addition and subtraction *including with missing numbers:*<br>  – using concrete objects and pictorial representations, including those involving numbers, quantities and measures.<br>  – applying their increasing knowledge of mental and written methods. | • *Understand multiplication as repeated addition.*<br>• *Understand division as sharing and grouping and that a division calculation can have a remainder.*<br>• Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.<br>• Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.<br>• *Derive and use doubles of simple two-digit numbers (numbers in which the ones total less than 10).*<br>• *Derive and use halves of simple two-digit even numbers (numbers in which the tens are even).*<br>• Calculate mathematical statements for multiplication *using repeated addition)* and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs.<br>• 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. |

Mathematics

# Key Learning in Mathematics – Year 2

| Number – fractions | Geometry – properties of shapes | Measurement |
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| <ul><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 $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity.</li><li>Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.</li><li>*Count on and back in steps of $\frac{1}{2}$ and $\frac{1}{4}$.*</li></ul> | <ul><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> | <ul><li>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.</li><li>Compare and order lengths, mass, volume/capacity and record the results using >, < and =.</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> |
| • | **Geometry – position and direction** | • |
| • | <ul><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> | • |
| | | **Statistics** |

Mathematics

- Compare and sort *objects, numbers and* common 2-D and 3-D shapes and everyday objects.
- Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.
- Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.
- Ask and answer questions about totalling and comparing categorical data.