**Key Learning in Mathematics – Year 2**

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| **Number – number and place value** | **Number – addition and subtraction** | **Number – multiplication and division** |
| * 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
* Recognise the place value of each digit in a two-digit number (tens, ones)
* Identify, represent and estimate numbers using different representations, including the number line
* *Partition numbers in different ways (e.g. 23 = 20 + 3 and23 = 10 + 13)*
* Compare and order numbers from 0 up to 100; use <, > and = signs
* *Find 1 or 10 more or less than a given number*
* *Round numbers to at least 100 to the nearest 10*
* *Understand the connection between the 10 multiplication table and place value*
* *Describe and extend simple sequences involving counting on or back in different steps*
* 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)*
* *Select a mental strategy appropriate for the numbers involved in the calculation*
* Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
* *Understand subtraction as take away and difference (how many more, how many less/fewer)*
* Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
* *Recall and use number bonds for multiples of 5 totalling 60 (to support telling time to nearest 5 minutes)*
* Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:

- a two-digit number and ones- a two-digit number and tens- two two-digit numbers- adding three one-digit numbers* Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems
* Solve problems with addition and subtraction *including with missing numbers:*- using concrete objects and pictorial representations, including those  involving numbers, quantities and measures- applying their increasing knowledge of mental and written methods
 | * *Understand multiplication as repeated addition*
* *Understand division as sharing and grouping and that a division calculation can have a remainder*
* Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
* Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
* *Derive and use doubles of simple two-digit numbers (numbers in which the ones total less than 10)*
* *Derive and use halves of simple two-digit even numbers (numbers in which the tens are even)*
* Calculate mathematical statements for multiplication *using repeated addition)* and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs
* 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
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| **Number – fractions** |
| * *Understand and use the terms numerator and denominator*
* *Understand that a fraction can describe part of a set*
* *Understand that the larger the denominator is, the more pieces it is split into and therefore the smaller each part will be*
* 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
* Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$
* *Count on and back in steps of* $\frac{1}{2}$ *and* $\frac{1}{4}$
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| **Measurement** |
| **Geometry – properties of shapes** | * 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
* Compare and order lengths, mass, volume/capacity and record the results using >, < and =
* Recognise and use symbols for pounds (£) and pence (p)
* Combine amounts to make a particular value
* Find different combinations of coins that equal the same amounts of money
* Compare and sequence intervals of time
* 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
* Know the number of minutes in an hour and the number of hours in a day
* Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change *and measures (including time)*
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| * Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line
* Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces
* Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]
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| **Geometry – position and direction** |
| * Order/arrange combinations of mathematical objects in patterns/sequences
* 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)
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| **Statistics** |
| * 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
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