# Year 2

| Number and Place Value | Addition and Subtraction |
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| **To count on and back in different multiples including 2, 3 and 5 from 0.**<br><br>To count on and back in tens from any number.<br><br>To give 10 more and 10 less than a number.<br><br>**To recognise the place value of each digit in a two-digit number (tens, ones (units)).**<br><br>**To partition two-digit numbers into different combinations of tens and ones.**<br><br>**To identify and represent numbers in different ways, e.g. through objects, pictures and number lines.**<br><br>To estimate numbers of objects.<br><br>To compare and order numbers from 0 up to 100.<br><br>To use <, > and = signs to compare numbers.<br><br>**To read and write numbers to at least 100 in numerals.**<br><br>To read and write numbers to at least 100 in words.<br><br>To complete number sequences. | **To use knowledge of addition facts to 10 to derive addition facts with a total of 20.**<br><br>**To use knowledge of addition facts to 10 to derive subtraction facts with a total of 20.**<br><br>**To add a 2-digit number and ones using objects, pictures and mentally.**<br><br>**To subtract a 2-digit number and ones using objects, pictures and mentally.**<br><br>**To add a 2-digit number and tens using objects, pictures and mentally.**<br><br>**To subtract a 2-digit number and tens using objects, pictures and mentally.**<br><br>**To add two 2-digit numbers by partitioning and recombining and mentally.**<br><br>**To subtract two 2-digit numbers using a blank number line and mentally.**<br><br>**To work out mental calculations where regrouping is required, e.g. 52-27; 91-73***<br><br>**To use estimation to check that their answers to a calculation are reasonable.**<br><br>To begin to use the column method to add two 2-digit numbers. |

**Emerging** = 1-50% of number and 1-50% of everything else **Developing**= 51-99 % of number and around 51-99 % of everything else
**Secure** = 100% of number and around 100% of other objectives (best fit)

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| To use place value and number facts to solve problems.<br><br>To round a number to the nearest 10.<br><br>**To use reasoning skills to solve a problem, e.g. sum of 3 odd numbers will always be an odd number***| To begin to use the column method to subtract two 2-digit numbers.<br><br>To add three 1-digit numbers using objects, pictures and mentally.<br><br>To know that addition can be done in any order (commutative) and subtract cannot.<br><br>**To recognise and use the inverse relationship between addition and subtraction and use this to check calculations.**<br><br>**To use the inverse relationship to solve missing number problems.**<br><br>**To solve more complex missing number problems. e.g.14 + _ - 3 = 1; 14 + __ = 15 +27***<br><br>To solve addition problems using objects and pictures, involving numbers, quantities and measures.<br><br>To solve subtraction problems using objects and pictures, involving numbers, quantities and measures.<br><br>**To solve one and two step word problem involving addition and subtraction*** |
| **Multiplication and Division** | **Fractions, Decimals and Percentages and Ratio and Proportion** |
| **To recall and use the 2, 5 and 10 times tables, including recognising odd and even numbers.**<br><br>**To recall and use division facts related to the 2, 5 and 10 times tables.** | To name and understand the fractions 1/3, $\frac{1}{4}$, 2/4 and $\frac{3}{4}$.<br><br>To write simple fractions, e.g. $\frac{1}{2}$ of 6 = 3.<br><br>**To understand fractions as part of a whole.** |

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| **To determine remainders given known facts, e.g. given 15 ÷ 5 = 3 and has a remainder of 0, pupil recognises that 16 ÷ 5 will have a remainder of 1*** | To recognise the equivalence of 2/4 and $\frac{1}{2}$. |
| To mentally recall doubles of numbers to 20. | To recognise the fractions $\frac{1}{2}$, 1/3, $\frac{1}{4}$, 2/4 and $\frac{3}{4}$ of a length, shape, set of objects. |
| To mentally recall halves of numbers to 20. | To find the fractions 1/3, $\frac{1}{4}$, 2/4 and $\frac{3}{4}$ of a length, shape, set of objects and quantity. |
| To solve multiplication calculations mentally and write them using the x and = signs. | **To find and compare fractions of amounts, e.g. $\frac{1}{4}$ of £20 = £5 and $\frac{1}{2}$ of £8 = £4 so $\frac{1}{4}$ of £20 is greater than $\frac{1}{2}$ of £8*** |
| To solve division calculations mentally and write them using the ÷ and = signs. | To count in fractions up to 10 from any number using $\frac{1}{2}$ and 2/4 equivalents, e.g. 1 $\frac{1}{4}$ , 1 $\frac{1}{2}$ , 1 $\frac{3}{4}$ , 2 etc. |
| To create multiplication and division number sentences when given 3 related numbers using the x, ÷ and = signs. | |
| **To know that multiplication can be done in any order (commutative) and division cannot.** | |
| **To recognise the relationships between + and – and rewrite addition statements as simplified multiplication statements, e.g. 10 + 10 + 10 + 5 + 5 = 3 x 10 + 2 x 5 = 4 x 10*** | |
| **To solve a range of multiplication problems using objects, pictures, arrays, repeated addition, mental methods and multiplication facts.** | |
| **To use multiplication facts to make deductions outside known multiplication facts, e.g. 18 x 5 cannot be 92 as it is not a multiple of 5*** | |
| **To solve a range of division problems using objects, pictures, sharing mental methods and division facts.** | |
| **To solve one and two step word problem involving multiplication and division*** | |

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| Measure | Geometry |
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| To use standard units 'm/cm' to estimate and measure length/height using rulers.<br><br>To use standard units 'kg/g' to estimate and measure mass/weight using scales.<br><br>**To use standard units °C to estimate and measure temperature using thermometers.**<br><br>**To read scales in divisions of ones, twos, fives and tens in a practical situation where all numbers on the scale are given.**<br><br>**To read scales in divisions of ones, twos, fives and tens in a practical situation where not all numbers on the scale are given***<br><br>To use standard units 'l/ml' to estimate and measure capacity/volume using measuring jugs.<br><br>To compare (half as high, twice as wide) and order lengths/mass, volume/capacity and record the results using > and < and =<br><br>To recognise and use the symbols for '£' and 'p'.<br><br>To combine amounts to make a particular value.<br><br>**To find different combinations of coins that equal the same amounts of money.**<br><br>To solve simple problems involving addition and subtraction of money of the same unit, including giving change.<br><br>To compare and sequence intervals of time. | **To identify and describe the properties of 2D shapes (number of sides, corners and line symmetry in a vertical line)**<br><br>**To identify and describe the properties of 3D shapes (number of edges, vertices and faces)**<br><br>To identify 2D shapes on the surface of 3D shapes e.g. circle on a cylinder.<br><br>To compare and sort common 2D and 3D shapes and everyday objects.<br><br>**To describe similarities and differences of shapes properties, e.g. finds 2 different 2D shapes that have only 1 line of symmetry***<br><br>*shapes include quadrilaterals, polygons, cuboids, prisms and cones.<br><br>To order and arrange combinations of mathematical objects in patterns and sequence, e.g. patterns of shapes in different orientations.<br><br>To describe position, directions and movements, including whole, $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{3}{4}$ turns and link these to right angles.<br><br>To know clockwise and anti-clockwise directions<br><br>To know the 4 main compass points (NSEW) |

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| **To tell and write the analogue time to quarter past/to the hour and draw the hands on a clock face to show these times.**<br><br>**To tell the time on an analogue clock to the nearest five minutes*** | |
| **Algebra** | **Statistics** |
| None in Year 2 | To interpret simple pictograms, tally charts, block diagrams and simple tables.<br><br>To construct simple pictograms, tally charts, block diagrams and simple tables.<br><br>To ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.<br><br>To ask and answer questions about totalling and comparing categorical data. |

Bold objectives refer to those that may be used by external moderators to assess maths.
* Working at a greater depth within the expected standard