

Key Learning in Mathematics – 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> Compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs <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"> <u>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting)</u> <u>Select a mental strategy appropriate for the numbers involved in the calculation</u> Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot <u>Understand subtraction as take away and difference (how many more, how many less/fewer)</u> <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"> - 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 <u>Solve problems with addition and subtraction including with missing numbers:</u> <ul style="list-style-type: none"> - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - 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>
<h3>Number – fractions</h3> <ul style="list-style-type: none"> <u>Understand and use the terms numerator and denominator</u> <u>Understand that a fraction can describe part of a set</u> <u>Understand that the larger the denominator is, the more pieces it is split into and therefore the smaller each part will be</u> <u>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</u> Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ <u>Count on and back in steps of $\frac{1}{2}$ and $\frac{1}{4}$</u> 	<h3>Geometry – properties of shapes</h3> <ul style="list-style-type: none"> <u>Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line</u> <u>Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces</u> Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] <h3>Geometry – position and direction</h3> <ul style="list-style-type: none"> Order/arrange combinations of mathematical objects in patterns/sequences <u>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)</u> <h3>Statistics</h3> <ul style="list-style-type: none"> Compare and sort <i>objects, numbers</i> 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 <u>Ask and answer questions about totalling and comparing categorical data</u> 	<h3>Measurement</h3> <ul style="list-style-type: none"> <u>Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}$C); capacity and volume (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels (within children's place value competence)</u> 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 <u>Find different combinations of coins that equal the same amounts of money</u> Compare and sequence intervals of time <u>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</u> <u>Know the number of minutes in an hour and the number of hours in a day</u> Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change and measures (including time)