

Mathematics Long Term Overview 2024 to 25

Year 2			
Counting, properties of numbers and number sequences	Place Value and Ordering and rounding	Understanding addition and subtraction	Rapid recall of addition and subtraction facts
<p>Count on and back in steps of 2, 3 and 5 from 0, then from and back to any given small number.</p> <p>Count on in 10s from any given number, forward and backward.</p> <p>Count reliably up to 100 objects by grouping them: for example, in tens, then in fives or twos.</p> <p>Describe and extend simple number sequences: count on or back in ones or tens, starting from any two-digit number.</p> <p>Count in hundreds from and back to zero; count on in twos from and back to zero or any small number, and recognise odd and even numbers to at least 30.</p> <p>Begin to recognise two-digit multiples of 2, 5 or 10.</p>	<p>Read and write numbers to at least 100 in numerals and words.</p> <p>Recognises the place value of each digit in a two-digit number, including 0 as a place holder, and partition two-digit numbers into a multiple of ten and ones (TU).</p> <p>Identify, represent and estimate numbers using different representations, including the number line.</p> <p>Compare and order numbers, from 0 to 100. Use the <, > and = sign to represent equality.</p> <p>Use place value and number facts to solve problems.</p> <p>Compare two given two-digit numbers, say which is more or less, and give a number which lies between them.</p> <p>Say the number that is 1 or 10 more or less than any given two-digit number to 100</p> <p>Use and begin to read the vocabulary of estimation and approximation; give a sensible estimate of at least 50 objects.</p> <p>Begin to round numbers less than 100 to the nearest 10.</p>	<p>Add and subtract numbers using concrete objects and pictorial representations and mentally, including:</p> <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 <p>Solve problems with addition and subtraction;</p> <ul style="list-style-type: none"> - using concrete objects and pictorial representations, including those involving number, quantities and measures - applying their increasing knowledge of mental and written methods. <p>Show that addition of two numbers can be done in any order, but subtraction of one number from another cannot: for example, $3 + 21 = 21 + 3$, but $21 - 3 \neq 3 - 21$.</p> <p>Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</p> <p>Understand that more than two numbers can be added.</p>	<p>Recall and use addition and subtraction facts to 20 fluently and derive and use related facts to 100</p> <p>Recall doubles and halves of numbers to 100 mentally</p>

Year 2

Understanding multiplication and division	Reasoning and generalising about numbers or shapes	Measurement	Geometry - properties of shapes - position and direction
<p>Understand the operation of multiplication as repeated addition or as describing an array, and begin to understand division as grouping (repeated subtraction) or sharing.</p> <p>Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication \times, division \div and equals $=$ signs</p> <p>Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.</p> <p>Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts</p> <p>Recognise the use of a symbol such as \blacksquare or \blacktriangle to stand for an unknown number.</p> <p>Know and use halving as the inverse of doubling.</p> <p>Rapid recall of multiplication and division facts</p> <p>Recall and use multiplication and division facts for the 2, 5 and 10 times-tables including odd and even numbers, doubles and halves of numbers to 100.</p> <p>Use known number facts and place value to carry out mentally simple multiplications and divisions.</p> <p>Fractions:</p> <p>Write simple fractions, for example $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.</p> <p>Begin to recognise that two halves or four quarters make one whole and that two quarters and one half are equivalent.</p> <p>Recognise, find, name and write fractions ($\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$) of a length, shape, set of objects or quantity.</p>	<p>Reasoning and generalising about numbers or shapes:</p> <p>Solve mathematical problems or puzzles, recognise simple patterns and relationships, generalise and predict. Suggest extensions by asking 'What if...?' or 'What could I try next'</p> <p>Investigate a general statement about familiar numbers or shapes by finding examples that satisfy it.</p> <p>Explain how a problem was solved orally and, where appropriate, in writing.</p> <p>Problems involving 'real life', money and measures:</p> <p>Use mental addition and subtraction, simple multiplication and division, to solve simple word problems involving numbers in 'real life', money or measures, using one or two steps. -Explain how the problem was solved.</p> <p>Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.</p> <p>Find different combinations of coins that equal the same amounts of money.</p> <p>Find totals, give change, and work out which coins to pay.</p> <p>Solving Problems - Making Decisions</p> <p>Choose and use appropriate operations and efficient calculation strategies (e.g. mental, mental with jottings) to solve problems.</p>	<p>Measurement:</p> <p>Compare and order lengths, mass, volume/ capacity and record the results using $>$, $<$ and $=$</p> <p>Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}$ C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.</p> <p>Read a simple scale to the nearest labelled division, including using a ruler to draw and measure lines to the nearest centimetre, recording estimates and measurements as '3 and a bit metres long' or 'about 8 centimetres' or 'nearly 3 kilograms heavy'.</p> <p>Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.</p> <p>Find different combinations of coins that equal the same amounts of money.</p> <p>Solve simple problems in a practical context involving addition and subtraction of money, including giving change.</p> <p>Tell and write the time to the hour, half hour or quarter hour and then to 5 minutes including quarter past /to the hour and draw the hands in a clock face to show these times.</p> <p>Know the number of minutes in an hour, and hours in a day.</p> <p>Compare and sequence intervals of time.</p> <p>Statistics:</p> <p>Solve a given problem by sorting, classifying and organising information in simple ways, such as: in a list or simple table; in a pictogram; in a block graph.</p> <p>Interpret and construct simple pictograms, tally chars, block diagrams and tables</p> <p>Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity</p> <p>Ask and answer questions about totalling and comparing categorical data</p>	<p>Identify and describe the properties of 2-D shapes, including the number of sides and lines of symmetry in a vertical line.</p> <p>Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.</p> <p>Identify 2-D shapes on the surface of 3-D shapes (e.g. a circle on a cylinder and a triangle on a pyramid)</p> <p>Compare and sort common 2-D and 3-D shapes and everyday objects, such as the number of sides and corners, symmetry (2-D shapes), or the shapes of faces and number of faces, edges and corners (3-D shapes).</p> <p>Use mathematical vocabulary to describe position, direction and movement: for example, describe, place, tick, draw or visualise objects in given positions.</p> <p>Organise and arrange combinations of mathematical objects in patterns and sequences.</p> <p>Recognise whole, half, quarter, three quarter and full turns, to the left or right, clockwise or anti-clockwise.</p> <p>Know that a right angle is a measure of a quarter turn, and recognise right angles in squares and rectangles.</p> <p>Give instructions for moving along a route in straight lines and round right-angled corners: for example, to pass through a simple maze, including programming robots.</p>