

# Maths Progression document

EYFS		Yr1	Yr2
Early Learning Goals	Development Matters		
<p><b><u>Number and Place Value</u></b> <b>Number:</b> have a deep understanding of number to 10, including the composition of each number</p> <p>subitise (recognise quantities without counting) up to 5 Numerical patterns</p> <p><b>Numerical patterns:</b> verbally count beyond 20, recognising the pattern of the counting system</p>	<p><b><u>Number and Place Value</u></b> count beyond ten Link the number symbol (numeral) with its cardinal number value</p> <p>subitise</p> <p>count objects, actions and sounds</p>	<p><b><u>Number and Place Value</u></b> count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</p> <p>count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens</p> <p>given a number, identify one more and one less</p> <p>identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</p> <p>read and write numbers from 1 to 20 in numerals and words</p>	<p><b><u>Number and Place Value</u></b> count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward</p> <p>recognise the place value of each digit in a two-digit number (tens, ones)</p> <p>identify, represent and estimate numbers using different representations, including the number line</p> <p>compare and order numbers from 0 up to 100; use and = signs</p> <p>read and write numbers to at least 100 in numerals and in words</p> <p>use place value and number facts to solve problems</p>
<p><b><u>Addition and Subtraction</u></b> <b>Number:</b> automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts</p>	<p><b><u>Addition and Subtraction</u></b> automatically recall number bonds for numbers 0–5 and some to 10</p> <p>explore the composition of numbers to 10</p> <p>understand the ‘one more than/one less than’ relationship between consecutive</p>	<p><b><u>Addition and Subtraction</u></b> read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs</p> <p>represent and use number bonds and related subtraction facts within 20</p> <p>add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>solve one-step problems that involve addition and</p>	<p><b><u>Addition and Subtraction</u></b> solve problems with addition and subtraction:</p> <ul style="list-style-type: none"> <li>• using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>• applying their increasing knowledge of mental and written methods</li> </ul> <p>recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</p> <p>add and subtract numbers using concrete objects, pictorial representations, and mentally, including:</p>

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	<p><b>Numerical patterns:</b> compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity</p>	<p>numbers</p> <p>Compare numbers</p>	<p>subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<ul style="list-style-type: none"> <li>• a two-digit number and ones</li> <li>• a two-digit number and tens</li> <li>• two two-digit numbers</li> <li>• adding three one-digit numbers</li> </ul> <p>show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot</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><b><u>Multiplication and Division</u></b> <b>Numerical patterns:</b> explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally</p>	<p><b><u>Multiplication and Division</u></b></p>	<p><b><u>Multiplication and Division</u></b> solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher</p>	<p><b><u>Multiplication and Division</u></b> recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</p> <p>calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) 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><b><u>Fractions (Decimals and Percentages)</u></b></p>	<p><b><u>Fractions (Decimals and Percentages)</u></b></p>	<p><b><u>Fractions (Decimals and Percentages)</u></b> recognise, find and name a half as one of two equal parts of an object, shape or quantity</p> <p>recognise, find and name a quarter as one of four equal parts of an object, shape or quantity</p>	<p><b><u>Fractions (Decimals and Percentages)</u></b> recognise, find, name and write fractions <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math> and <math>\frac{3}{4}</math> of a length, shape, set of objects or quantity</p> <p>write simple fractions for example, <math>\frac{1}{2}</math> of 6 = 3 and recognise the equivalence of <math>\frac{2}{4}</math> and <math>\frac{1}{2}</math></p>

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	<u>Ratio and Proportion</u>	<u>Ratio and Proportion</u> continue, copy and create repeating patterns	<u>Ratio and Proportion</u>	<u>Ratio and Proportion</u>
	<u>Algebra</u>	<u>Algebra</u>	<u>Algebra</u>	<u>Algebra</u>
	<u>Measurement</u>	<u>Measurement</u> compare length, weight and capacity	<u>Measurement</u> compare, describe and solve practical problems for: <ul style="list-style-type: none"> <li>• lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]</li> <li>• mass/weight [for example, heavy/light, heavier than, lighter than]</li> <li>• capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]</li> <li>• time [for example, quicker, slower, earlier, later]</li> </ul> measure and begin to record the following: <ul style="list-style-type: none"> <li>• lengths and heights</li> <li>• mass/weight</li> <li>• capacity and volume</li> <li>• time (hours, minutes, seconds)</li> </ul> recognise and know the value of different denominations of coins and notes  sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]  recognise and use language relating to dates, including days of the week, weeks, months and years  tell the time to the hour and half past the hour and draw the hands on a clock face to show these times	<u>Measurement</u> choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (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  solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change  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

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	<p><b><u>Properties of Shape</u></b></p>	<p><b><u>Properties of Shape</u></b>          compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can</p> <p>select, rotate and manipulate shapes to develop spatial reasoning skills</p>	<p><b><u>Properties of Shape</u></b>          recognise and name common 2-D and 3-D shapes, including:</p> <ul style="list-style-type: none"> <li>• 2-D shapes [for example, rectangles (including squares), circles and triangles]</li> <li>• 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]</li> </ul>	<p><b><u>Properties of Shape</u></b>          identify and describe the properties of 2-D shapes, including the number of sides and line 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 [for example, 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</p>
	<p><b><u>Position and Direction</u></b></p>	<p><b><u>Position and Direction</u></b></p>	<p><b><u>Position and Direction</u></b>          describe position, direction and movement, including whole, half, quarter and three -quarter turns.</p>	<p><b><u>Position and Direction</u></b>          order and arrange combinations of mathematical objects in patterns and sequences</p> <p>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)</p>
	<p><b><u>Statistics</u></b></p>	<p><b><u>Statistics</u></b></p>		<p><b><u>Statistics</u></b>          interpret and construct simple pictograms, tally charts, block diagrams and simple 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>

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