

Maths Progression of Skills

The document below demonstrates how we structure and sequence our maths curriculum across the school to ensure our pupils gain a rich and wide range of mathematical skills, knowledge and vocabulary, effectively built upon year on year.

Number and Place Value

EYFS	Year 1	Year 2
Select the correct numeral to represent 1 to 5, then 1 to 10 objects and 1 to 20 objects.	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.	Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward
Count an irregular arrangement of up to ten objects.	Count, read and write numbers to 100 in numerals.	Recognise the place value of each digit in a two-digit number (tens, ones)
Count reliably with numbers from 1 to 20.	Count in multiples of twos, fives and tens	Identify, represent and estimate numbers using different representations, including the number line
Place numbers from 1-20 in order.	Given a number to 100, identify one more and one less	Compare and order numbers from 0 up to 100; use more than, less than and = signs
Say which number is one more or one less than a given number to 20.	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,	Read and write numbers to at least 100 in numerals and in words
Estimate how many objects they can see from a small quantity and check by counting them.	Read and write numbers from 1 to 20 in numerals and words.	Use place value and number facts to solve problems

Addition and Subtraction

EYFS	Year 1	Year 2
<p>Finds the total number of items in two groups by counting all of them. [up to 20]</p> <p>Find one more or one less from a group of up to five objects, then ten objects.</p> <p>Use the language of 'more' and 'fewer' to compare two sets of objects.</p> <p>Using quantities and concrete objects, add and subtract two single-digit numbers and count on or back to find the answer.</p> <p>In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.</p> <p>Record, using marks that they can interpret and explain.</p>	<p>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 subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$.</p>	<p>Solve problems with addition and subtraction:</p> <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 <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> <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>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>

Multiplication and Division [EYFS in the context of doubling, halving and sharing]

EYFS	Year 1	Year 2
Solve simple practical problems, including doubling, halving and sharing.	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>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 (\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>

Fractions [EYFS in the context of halving and sharing]

EYFS	Year 1	Year 2
Solve simple practical problems involving halving.	<p>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>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.</p> <p>Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.</p>

Measurement

EYFS	Year 1	Year 2
<p>Use everyday language to talk about</p> <ul style="list-style-type: none"> ♣ size ♣ weight ♣ capacity ♣ position ♣ time ♣ money <p>Compare quantities and objects and solve simple problems.</p> <p>Order two or three items by length or height.</p> <p>Order two items by weight or capacity.</p> <p>Use everyday language related to time.</p> <p>Begin to use everyday language related to money.</p> <p>Order and sequences familiar events.</p> <p>Measure short periods of time in simple ways.</p>	<p>compare, describe and solve practical problems for:</p> <ul style="list-style-type: none"> ♣ lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] ♣ mass/weight [for example, heavy/light, heavier than, lighter than] ♣ capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] ♣ time [for example, quicker, slower, earlier, later] <p>measure and begin to record the following:</p> <ul style="list-style-type: none"> ♣ lengths and heights ♣ mass/weight ♣ capacity and volume ♣ time (hours, minutes, seconds) <p>recognise and know the value of different denominations of coins and notes</p> <p>sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]</p> <p>recognise and use language relating to dates, including days of the week, weeks, months and years</p> <p>tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</p>	<p>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</p> <p>compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$</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 of the same unit, including giving change</p> <p>compare and sequence intervals of time</p> <p>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</p> <p>know the number of minutes in an hour and the number of hours in a day</p>

Geometry –properties of shapes

EYFS	Year 1	Year 2
<p>Begin to use mathematical names for ‘solid’ 3D shapes and ‘flat’ 2D shapes.</p> <p>Select a particular named shape.</p> <p>Use familiar objects and common shapes to create and recreate patterns and build models.</p> <p>Explore characteristics of everyday objects and shapes and use simple mathematical language to describe them.</p>	<p>recognise and name common 2-D and 3-D shapes, including:</p> <ul style="list-style-type: none"> ♣ 2-D shapes [for example, rectangles (including squares), circles and triangles] ♣ 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]. 	<p>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>

Geometry –position and direction

EYFS	Year 1	Year 2
<p>Describe their relative position using everyday language such as ‘behind, ‘in front of’ or ‘next to’.</p> <p>Describe simple directions, e.g. forwards, backwards.</p> <p>Recognise, create and describe simple patterns</p>	<p>Describe position, direction and movement, including whole, half, quarter and three quarter turns.</p>	<p>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 anticlockwise).</p>

Statistics

EYFS	Year 1	Year 2
		<p>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>

