

Maths curriculum map

Nursery

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Number</p> <ul style="list-style-type: none"> • Uses some number names and number language spontaneously. <p>Shape Space and Measures</p> <ul style="list-style-type: none"> • Shows an interest in shape and space by playing with shapes or making arrangements with objects. • Shows interest in shape by sustained construction activity or by talking about shapes or arrangements. <p><i>Number rhymes</i> <i>Baseline assessment</i></p>	<p>Number</p> <ul style="list-style-type: none"> • Uses some number names accurately in play. • Realises not only objects, but anything can be counted, including steps, claps or jumps. • Knows that numbers identify how many objects are in a set. <p>Shape Space and Measures</p> <ul style="list-style-type: none"> • Beginning to talk about the shapes of everyday objects, e.g. 'round' and 'tall'. • Uses shapes appropriately for tasks. <p>Number rhymes Counting to 10 More 2D shape Order by Size</p>	<p>Number</p> <ul style="list-style-type: none"> • Shows an interest in numerals in the environment. • Compares two groups of objects, saying when they have the same number. • Shows curiosity about numbers by offering comments or asking questions. • Recites numbers in order to 10. <p>Shape Space and Measures</p> <ul style="list-style-type: none"> • Uses positional language. • Shows awareness of similarities of shapes in the environment. • Shows interest in shapes in the environment. <p><i>Counting to 10</i> <i>Recognising numerals to 5</i> <i>Sorting</i> <i>More / less</i> <i>Shape names</i></p>	<p>Number</p> <ul style="list-style-type: none"> • Sometimes matches numeral and quantity correctly. • Beginning to represent numbers using fingers, marks on paper or pictures. <p>Maths Week</p> <p><i>Counting to 10</i> <i>Recognising numerals to 5</i> <i>Comparing size</i> <i>Shape properties language</i></p>	<p>Number</p> <ul style="list-style-type: none"> • Shows an interest in number problems. • Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same. • Shows an interest in representing numbers. <p><i>Counting to / above 10</i> <i>Beginning to recognise numerals to 10</i> <i>Positional language</i></p>	<p>Number</p> <ul style="list-style-type: none"> • Recognise some numerals of personal significance. • Recognises numerals 1 to 5. • Counts up to three or four objects by saying one number name for each item. • Counts actions or objects which cannot be moved. • Counts objects to 10, and beginning to count beyond 10. • Counts out up to six objects from a larger group <p><i>Counting to / above 10</i> <i>ordering numerals to 10</i> <i>3D shapes</i> <i>Heavy / light</i></p>

Reception

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<ul style="list-style-type: none"> To recite the numbers 0-10 	<ul style="list-style-type: none"> To recite the numbers 0-10 forwards and backwards To say the number 1 more than a given number (0-10) 	<ul style="list-style-type: none"> To recite the numbers 0-20 forwards To recognise numerals 0-10 To say the number 1 more and 1 less than a given number (0-10) 	<ul style="list-style-type: none"> To recite the numbers 0-20 forwards To say the number that is 1 more than a given number (0-20) To know doubles to 5 	<ul style="list-style-type: none"> To say the number that is 1 more and 1 less than a given number (0-20) To know doubles to 5 To add and subtract 2 single digits 	<ul style="list-style-type: none"> To add and subtract 2 single digits To know doubles up to 5 and the corresponding half. To say the number 1 more and 1 less than a given number (0-20)
<p>Shape Space and Measures</p> <ul style="list-style-type: none"> Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes. Selects a particular named shape. <p>Number</p> <ul style="list-style-type: none"> Recognise some numerals of personal significance. Recognises numerals 1 to 5. Counts up to three or four objects by saying one number name for each item. Counts actions or objects which cannot be moved. Counts objects to 10, and beginning to count beyond 10. -Counts an irregular arrangement of up to 10 objects. Counts out up to six objects from a larger group. Selects the correct numeral to represent 1 to 5, then 1 to 10 objects. Mark making with numbers <p><i>Number rhymes</i> <i>Counting to 10</i> <i>Recognising numbers How many people live in your house?</i> <i>Colours</i> <i>Sorting and matching</i> <i>2D shapes</i></p>	<p>Shape Space and Measures</p> <ul style="list-style-type: none"> Uses familiar objects and common shapes to create and recreate patterns and build models. Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes. Selects a particular named shape. Orders two or three items by length or height. Orders and sequences familiar events. Measures short periods of time in simple ways. <p>Number</p> <ul style="list-style-type: none"> Estimates how many objects they can see and checks by counting them. Uses the language of 'more' and 'fewer' to compare two sets of objects. Finds the total number of items in two groups by counting all of them. Says the number that is one more than a given number. Finds one more or one less from a group of up to five objects, then ten objects. <p><i>Number Blocks</i> <i>Number of the week</i> <i>Shape of the week</i> <i>Counting, adding more</i> <i>Ordering numbers</i> <i>Bigger/smaller numbers</i> <i>One more/one less</i> <i>Size vocab</i> <i>Sequencing time</i> <i>Measuring and comparing height</i> <i>2D & 3D shapes</i></p>	<p>Shape Space and Measures</p> <ul style="list-style-type: none"> Uses everyday language related to time. Beginning to use everyday language related to money. <p>Number</p> <ul style="list-style-type: none"> Finds one more or one less from a group of up to five objects, then ten objects. In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting. Records, using marks that they can interpret and explain. Begins to identify own mathematical problems based on own interests and fascinations. <p><i>Counting in 10s</i> <i>Addition, counting on</i> <i>Subtraction</i> <i>Counting and comparing</i></p> <p><i>2D & 3D properties</i> <i>Describing shapes</i> <i>Measuring and comparing length</i> <i>Money</i></p>	<p>Shape Space and Measures</p> <ul style="list-style-type: none"> Uses familiar objects and common shapes to create and recreate patterns and build models. Can describe their relative position such as 'behind' or 'next' Orders two items by weight or capacity. <p>Number</p> <ul style="list-style-type: none"> In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting. Records, using marks that they can interpret and explain. Counts objects to 10, and beginning to count beyond 10. Introduce doubles. <p><i>Counting in 10s & 5s</i> <i>Ordinal numbers</i> <i>Addition and subtraction</i></p> <p><i>Comparative language</i> <i>Positional language</i> <i>Measuring and comparing weight</i> <i>Pattern</i> <i>Repeating patterns</i></p>	<p>Shape Space and Measures</p> <ul style="list-style-type: none"> Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes. Selects a particular named shape. Can describe their relative position such as 'behind' or 'next to'. Orders two or three items by length or height. Orders two items by weight or capacity. Uses familiar objects and common shapes to create and recreate patterns and build models. <p>Number</p> <ul style="list-style-type: none"> Says the number that is one more than a given number. Finds one more or one less from a group of up to five objects, then ten objects. In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting. Records, using marks that they can interpret and explain. Begins to identify own mathematical problems based on own interests and fascinations. <p>Early Learning Goal</p> <p><i>Addition & Subtraction</i> <i>Counting in 2's</i> <i>Sequencing, missing numbers</i> <i>Sharing objects into groups</i></p> <p><i>Ordering and comparing size</i> <i>Prepositions</i> <i>Shape vocabulary</i></p>	<p>Shape Space and Measures</p> <ul style="list-style-type: none"> Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them. <p>Number</p> <ul style="list-style-type: none"> Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing. <p><i>Recording calculations</i> <i>Number bonds</i> <i>Doubles</i></p> <p><i>Directions</i> <i>Symmetry</i> <i>Timers</i> <i>Capacity</i></p>

Year 1

Year 1 Mental Maths

Aut2	Spr1	Spr2	Sum1	Sum2
<ul style="list-style-type: none"> To count to, back and across 100 starting at 0, 1, or any number. To count in steps of 2 and 10. To know doubles to 5 To know number bonds to 10 	<ul style="list-style-type: none"> To count in steps of 2, 5 and 10 To know number bonds to 10. To know doubles and corresponding halves to 10 To know addition and subtraction facts to 10. 	<ul style="list-style-type: none"> To know addition and subtraction facts to 20 To know doubles and corresponding halves to 20. To bridge to 10 Example: $7 + 6 = 7 + 3 + 3 = 13$, $18 + 6 = 18 + 2 + 4 = 24$ 	<ul style="list-style-type: none"> To know addition and subtraction facts between 0-20 (including bridging) To say the number 1 more/1 less than any number to 100. To say the number 10 more/10 less than any number to 100. To add near doubles Example: $4 + 5 = 4 + 4 + 1 = 9$ 	<ul style="list-style-type: none"> To know addition and subtraction facts between 0-20 (including bridging/doubles/halves/ near doubles) To say the number 1 more/1 less than any number to 100. To say the number 10 more/10 less than any number to 100. Count in steps of 2, 10 and 5

Week	1	2	3	4	5	6	7	8	9	11	12		
Autumn	Place value within 10			Addition and Subtraction within 10				Geometry - shape		Place value within 20		Consolidation	
	-Count to ten, forwards and backwards, beginning with 0 or 1, or from any given number. -Count, read and write numbers to 10 in numerals and words. -Given a number, identify one more or one less. - 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.			-Represent and use number bonds and related subtraction facts within 10 -Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. -Add and subtract one digit numbers to 10, including zero. -Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems.				-Recognise and name common 2-D shapes, including: (for example, rectangles (including squares), circles and triangles) -Recognise and name common 3-D shapes, including: (for example, cuboids (including cubes), pyramids and spheres.)		-Count to twenty, forwards and backwards, beginning with 0 or 1, from any given number. -Count, read and write numbers to 20 in numerals and words. -Given a number, identify one more or one less. -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.			

Week	1	2	3	4	5	6	7	8	9	10	11	12
Spring	Addition and Subtraction within 20				Place value within 50 (including multiples of 2 5 and 10)			Measurement: length, height,		Measurement: weight, volume		Consolidation
	<p>-Represent and use number bonds and related subtraction facts within 20</p> <p>-Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</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>Count to 50 forwards and backwards, beginning with 0 or 1, or from any number.</p> <p>-Count, read and write numbers to 50 in numerals.</p> <p>-Given a number, identify one more or 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. Count in multiples of twos, fives and tens.</p>			<p>-Measure and begin to record mass/weight, capacity and volume.</p> <p>-Compare, describe and solve practical problems for 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]</p>		<p>-Measure and begin to record mass/weight, capacity and volume.</p> <p>-Compare, describe and solve practical problems for 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]</p>		

Week	1	2	3	4	5	6	7	8	9	10	11	12	
Summer	Multiplication and division		Fractions		Geometry - Position and direction	Place value within 100		Money		Time		Addition and subtraction	Consolidation
	<p>-Count in multiples of twos, fives and tens.</p> <p>-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>-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>-Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half) -</p> <p>-Compare, describe and solve practical problems for: 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]</p>		<p>-Describe position, direction and movement, including whole, half, quarter and three quarter turns</p>	<p>-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. -</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, most, least.</p>		<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.] -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>-Compare, describe and solve practical problems for time [for example, quicker, slower, earlier, later] -</p> <p>-Measure and begin to record time (hours, minutes, seconds)</p>		<p>Problem solving and investigations</p>	

Year 2

Year 2 Mental Maths

Aut1	Aut2	Spr1	Spr2	Sum1	Sum2
<ul style="list-style-type: none"> To know number bonds to 20 To know addition and subtraction facts to 20 To use known facts to recall related facts <p>Example: $3+7=10/30+7=10$</p> <ul style="list-style-type: none"> To count in steps of 2 and 5. 	<ul style="list-style-type: none"> To know addition and subtraction facts to 20 To mentally add 3 single digit numbers and to reorder numbers when appropriate. To add and subtract a multiple of ten to any 2-digit number. To count forwards in steps of 2, 5 and 3 	<ul style="list-style-type: none"> To add and subtract 9 to and from any 2-digit number. To add and subtract 11 from any 2-digit number To count in steps of 2, 5 and 3 forwards and backwards. To calculate multiplication facts ($2 \times 5 \times 10 \times$) To calculate division facts ($\div 2 \div 5 \div 10$) 	<ul style="list-style-type: none"> To mentally add and subtract 2 2digit number (no regrouping) To know doubles up to 30 To calculate multiplication facts ($2 \times 5 \times 10 \times$) To calculate division facts ($\div 2 \div 5 \div 10$) 	<ul style="list-style-type: none"> To mentally add and subtract 2 digit numbers (with regrouping) To know doubles and corresponding halves up to 30 To calculate multiplication facts ($2 \times 5 \times 10 \times$) To calculate division facts ($\div 2 \div 5 \div 10$) 	<ul style="list-style-type: none"> To mentally add and subtract 2 digit numbers (with regrouping) To know doubles and corresponding halves up to 30 To add near doubles <p>Example: $13+14, 39+40$</p>

Week	1	2	3	4	5	6	7	8	9	10	11	12	
Autumn	Place value			Addition and Subtraction				Measurement - weight	Money		Multiplication		Consolidation
	- Read and write numbers to at least 100 in numerals and in words. -Recognise the place value of each digit in a two digit number (tens, ones) - Identify, represent and estimate numbers using different representations including the number line. -Compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs. Use place value and number facts to solve problems. - To use place value to solve number facts -Count in steps of 2, 3 and 5 from 0, and in tens from any number, forward and backward.			-Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100. -Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers. -Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. -Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods. -Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.				Choose and use appropriate standard units to estimate and measure mass (kg/g); appropriate unit, using, scales, and measuring vessels -Compare and order mass, and record the results using $>$, $<$ and $=$	-Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a 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.		-Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers. -Calculate mathematical statements for multiplication within the multiplication tables and write them using the multiplication (\times), and equals ($=$) sign. -Solve problems involving multiplication, using materials, arrays, repeated addition, mental methods and multiplication, including problems in contexts. - -Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.		

Week	1	2	3	4	5	6	7	8	9	10	11	12	
Spring	Division		Fractions		Geometry - shape		Addition and subtraction - effective methods		Geometry - Position and direction	Measurement - capacity, time, length, temperature			Consolidation
	<ul style="list-style-type: none"> -Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers. -Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs. -Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts. -Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. 		<ul style="list-style-type: none"> -Recognise, find, name and write fractions 13, 14, 24 and 34 of a length, shape, set of objects or quantity. -Write simple fractions for example, $\frac{1}{2}$ of $6 = 3$ and recognise the equivalence of $\frac{2}{4}$ and 12. 		<ul style="list-style-type: none"> -Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. - -Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. - -Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid.] -Compare and sort common 2-D and 3-D shapes and everyday objects. 		<ul style="list-style-type: none"> -Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; -Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods. -Recognise and use the inverse relationship between addition and subtraction and - use this to check calculations and solve missing number problems. 		<ul style="list-style-type: none"> -Order and arrange combinations of mathematical objects in patterns and sequences -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). 	<ul style="list-style-type: none"> -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. - -Compare and sequence intervals of time. -Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit, -using rulers, thermometers and measuring vessels - Compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$ 			

Week	1	2	3	4	5	7	8	9	10	11	12		
Summer	Statistics Assessment		Geometry - shape		Problem solving and investigations		Geometry - direction		Addition and subtraction		Problem solving and investigations		Consolidation
	<ul style="list-style-type: none"> -Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. -Ask and answer simple questions by counting the number 		<ul style="list-style-type: none"> -Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. - 		<ul style="list-style-type: none"> - efficient methods -problem solving skills eg: trial and improve, working systematically 		<ul style="list-style-type: none"> -Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing 		<ul style="list-style-type: none"> - to develop efficient methods - To solve problems with addition and subtraction: using concrete objects and pictorial representations, 		<ul style="list-style-type: none"> - efficient methods -problem solving skills eg: trial and improve, working systematically 		

	<p>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 3-D shapes, including the number of edges, vertices and faces. -</p> <p>-Identify 2-D shapes on the surface of 3-D shapes,</p> <p>-Compare and sort common 2-D and 3-D shapes</p> <p>- Order and arrange combinations of mathematical objects in patterns and sequences</p>		<p>between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).</p> <p>-Order and arrange combinations of mathematical objects in patterns and sequences</p>	<p>including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods.</p> <p>-Recognise and use the inverse relationship between addition and subtraction and - use this to check calculations and solve missing number problems.</p>		
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