

Templemoor Infant and Nursery School – Mathematics: Curriculum Progression Document



Nursery

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Learning Project Focus	How many colours are in a rainbow?	Is it shiny?	How does that building stay up?	Are eggs alive?	How many pebbles on the beach?	How high can you jump?
Number and Place Value	<p>I can say number names in rhyme and play</p> <p>I can say one number for each item in order: 1,2,3,4,5</p> <p>I can count objects, actions, sounds</p>		<p>I can say number names in rhyme and play</p> <p>I can recite numbers past 5</p> <p>I can show 'finger numbers' up to 5</p> <p>I can match numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5</p> <p>I can compare quantities using language: 'more than', 'fewer than'.</p>		<p>I can say number names in rhyme and play</p> <p>I can recite numbers past 5</p> <p>I can make my own symbols and marks as well as numerals</p> <p>I can recognise up to 3 objects, without having to count them individually ('subitising')</p> <p>I can solve real world mathematical problems with numbers up to 5</p> <p>I know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle')</p>	
Measures	<p>Length and height</p> <p>I can make comparisons between objects relating to size, length</p>		<p>Length and height</p> <p>I can make comparisons between two objects relating to size, height</p> <p>Weight</p> <p>I can make comparisons between objects relating to weight.</p>		<p>Capacity</p> <p>I can make comparisons between objects relating to capacity.</p>	

Geometry Shape		<p>I can talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'.</p> <p>I can select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc.</p>	I can combine shapes to make new ones – an arch, a bigger triangle, etc.
Pattern	<p>I can talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc.</p> <p>I can describe a sequence of events, real or fictional, using words, such as 'first', 'then...' (E.g. sequencing daily routines: morning, afternoon, earlier, later, yesterday, tomorrow, the day before, the day after)</p>	<p>I can extend and create ABAB patterns – stick, leaf, stick, leaf.</p> <p>I can notice and correct an error in a repeating pattern.</p> <p>I can describe a sequence of events, real or fictional, using words, such as 'first', 'then...' (E.g. day, night, events in stories, sequence stages of animal growth)</p>	
Position and direction	I can understand position through words alone – for example, "The bag is under the table," – with no pointing.		<p>I can describe a familiar route.</p> <p>I can discuss routes and locations, using words like 'in front of' and 'behind'.</p>

Reception						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Learning Project	All about me and my friends	Autumn	Will you read me a story?	Do cows drink milk?	Are we there yet?	Why do ladybirds have spots?
Subject focus	<p>Getting to know you Match, sort and compare Talk about measure and patterns It's me 1,2,3 Circles and triangles 1,2,3,4,5 Shapes with 4 sides</p>		<p>Alive in 5 Mass and capacity Growing 6,7,8 Length, height and time Building 9 and 10 Explore 3D shapes</p>		<p>To 20 and beyond How many now? Manipulate, compose and decompose Sharing and grouping Visualise, build and map Make connections</p>	

<p>Number and Place Value</p>	<p>I can match objects that are identical, finding pairs (Criteria examples- colour, size, pattern, shape, number shapes)</p> <p>I can sort objects into sets based on colour, size or shape</p> <p>I know numerals 1-5</p> <p>I know that the final number counted is the quantity of the set</p> <p>I can represent, compare and understand the composition of numbers 1-5 by:</p> <p>I can match numerals to quantities</p> <p>I can count by touching objects and recognise that the final number is the quantity of the set</p> <p>I can subitise (automatically recognise without counting) quantities to 5</p> <p>I can use own mark making to represent numbers and quantities to 5</p> <p>I am beginning to understand as we count on each number is one more and as we count back each number is one less than the previous number</p> <p>I can compare sets of objects using language; more and fewer</p> <p>I can order amounts/sets of objects by the size of the set</p>	<p>I know that zero 0 represents 'nothing there'</p> <p>I know numerals 0-10</p> <p>I can count forwards and backwards to 10</p> <p>I can represent, compare and understand the composition of numbers 6-10 by:</p> <p>I can match numerals to quantities</p> <p>I can count by touching objects and recognise that the final number is the quantity of the set</p> <p>I can use own mark making to represent numbers and quantities to 10</p> <p>I understand as we count on each number is one more and as we count back each number is one less than the previous number</p> <p>I can compare sets of objects using language; more than and fewer, same as etc</p> <p>I can order amounts/sets of objects by the size of the set</p> <p>I can arrange sets of objects up to 10 into smaller groups to see how numbers are made up of smaller numbers</p> <p>I can explore and represent patterns within numbers up to 10, including evens and odds by making pairs</p>	<p>I can verbally count beyond 20</p> <p>I am beginning to identify numbers to 20 and beyond</p> <p>I can sequence numbers in order</p> <p>I can count on and back including continuing the count from any given number</p> <p>I know the number that comes before or after a given number</p> <p>I have an understanding of odd and even through sharing and making pairs</p> <p>I can use tens frames to see that larger numbers are composed of 10 and a part of the next ten (12 is one full ten and 2)</p>
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<p>Addition and Subtraction</p>	<p>I know the different compositions of numbers to 2 and 3 (E.g. 3 is 1 and 2 or 1 and 1 and 1 etc)</p> <p>I know the number that is one more and one less than a number to 5</p> <p>I know number bonds to 2 and 3</p>	<p>I can recognise quantities up to 5 without counting (subitise)</p> <p>I can begin to combine 2 groups to find out how many altogether</p> <p>I am becoming familiar with number bonds to 10 through practical exploration</p> <p>I know number bonds to 4 and 5</p>	<p>I can add within 10 using real objects and number stories first, then and now structure</p> <p>I can subtract within 10 using real objects and number stories first, then and now structure</p> <p>I am becoming familiar with number bonds to 10 through practical exploration, including doubles</p>
<p>Multiplication and Division</p>			<p>I can share and group objects equally</p> <p>I know when items have been shared equally or not</p> <p>I have an understanding of odd and even through practically sharing and making pairs</p>
<p>Fractions</p>		<p>I am beginning to understanding the term half-linked to capacity</p>	<p>I am beginning to understanding half-linked to sharing</p>
<p>Measures</p>	<p>Length, height, mass and capacity I can compare size, mass and capacity- compare and order objects according to size</p> <p>Time I am beginning to describe a sequence of events, real or fictional, using words, such as 'first', 'then...'</p> <p>I am beginning to order key events in a day using vocabulary: day, night, morning, afternoon, before, after, today, tomorrow, now, next, later</p>	<p>Mass I can compare mass using the language; heavy, heavier than, heaviest, light, lighter than and lightest</p> <p>Capacity I can compare capacity using the language; full, empty, half full, nearly full and nearly empty</p> <p>Length and height I can compare length and height using the language; tall, long, short, taller, shorter, longer, shorter, wide, narrow, wider, narrower</p> <p>Time I can order and sequence important times in the day using language such as; day, night,</p>	

		<p>morning, afternoon, before, after, today, tomorrow, now, next, later</p> <p>I can sing songs to sequence the days of the week</p>	
Geometry	<p>2D shape-</p> <p>I know the names of 2D shapes: circles, triangles, squares and rectangles</p> <p>I am beginning to recognise the properties of 2D shapes and use language such as; curved and straight sides, corners, longer than, shorter than, equal (squares are classed as special rectangles with 4 equal sides)</p>	<p>3D shape</p> <p>I am beginning to learn the names of some 3D shapes; cylinder, cuboid, cube, sphere, cone and pyramid</p> <p>I can talk about the similarities and differences between 3D shapes using everyday language such as; curved, round, straight, flat and be introduced to properties such as; face and edge</p> <p>I can sort 3D shapes</p>	
Pattern	I can copy, continue and create simple repeating patterns (ABAB)	I can copy, continue and create repeating patterns introducing more complex patterns (ABB, AAB, AABB etc)	I can copy, continue and create repeating patterns introducing more complex patterns (ABBC)
Spatial awareness	I can use positional language such as; over, around, under, through		<p>I am beginning to recognise shapes with different orientation</p> <p>I am beginning to copy 2D pictures and simple 3D models</p> <p>I am beginning to complete simple jigsaw and shape puzzles, rotating shapes to fit</p> <p>I can use positional language such as next to, above, below, between describe shapes and objects in relation to one another</p> <p>I am learning to recognise that a shape can have other shapes within it. For example; I can see that when two triangles are put together they make a square.</p>

Year One

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Learning Project	Our School/My Family History		Our Local Area/The Greatest Explorers		Our Country/Great Inventions	
Subject Focus	Place value (within 10) Addition and subtraction (within 10) Shape		Place value (within 20) Addition and subtraction (within 20) Place value (within 50) Length and height Mass and volume		Multiplication and division Fractions Position and direction Place value (within 100) Money Time	
Number and Place Value	I can count to 20, forwards and backwards, beginning with 0 or 1, or from any given number I know how to count, read and write numbers to 10 in numerals and words. I can identify and represent numbers using: objects and pictorial representations, including a number line I can use the language of: equal to, more than, less than (fewer), most, least to compare I know 1 more or 1 less than a given number up to 10		I can count to and across 20 initially and then 50, forwards and backwards, beginning with 0 or 1, or from any given number I know that one ten is equal to ten ones I know that numbers 11-19 have one ten and some more I know how to count, read and write numbers to 20 and then 50 in numerals I can identify and represent numbers using: objects and pictorial representations, including a number line I am beginning to represent the tens and ones within a number to 50 I know 1 more or 1 less than a given number up to 50 I can count in multiples of 2s, 5s and 10s.		I can count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number I know how to count, read and write numbers to 100 in numerals I can identify and represent numbers using: objects and pictorial representations, including a number line I am beginning to represent the tens and ones within a number to 100 I know 1 more or 1 less than a given number up to 100 I can count in multiples of 2s, 5s and 10s.	
Addition and Subtraction	I can read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs I can add and subtract within 10 I can add and subtract by counting on and back		I can read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs I can add and subtract one-digit and two-digit numbers within 20, including zero, using concrete resources and pictorial methods		I know addition and subtraction facts within 10 and some within 20	

	<p>I can partition a number into two parts, exploring all the number bonds systematically</p> <p>I can represent and use number bonds and related subtraction facts within 10</p> <p>I can solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.</p> <p>I know some addition and subtraction facts within 10.</p>	<p>I can add and subtract by counting on and back</p> <p>I can represent and use number bonds and related subtraction facts within 20</p> <p>I am beginning to use tens frames to help to see how adding or subtracting to 10 can help calculate</p> <p>I can partition a number into two parts, exploring all the number bonds systematically</p> <p>I can solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.</p> <p>I know addition and subtraction facts within 10</p>	
<p>Multiplication and Division</p>			<p>I can count in multiples of 2s, 5s and 10s.</p> <p>I can make equal groups by sharing or grouping</p> <p>I can add equal groups</p> <p>I can solve one-step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays with the support of my teacher</p> <p>I can double numbers to 20</p> <p>I know doubles to 10</p>

<p>Fractions</p>			<p>I can recognise, find and name a half as one of two equal parts of an object, shape or quantity.</p> <p>I can recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</p>
<p>Measures</p>		<p>Length & height Mass & volume</p> <p>I can compare the length and height of objects (for example, long/short, longer/shorter, tall/short, double/half)</p> <p>I can use non-standard units to measure length and height e.g. cubes</p> <p>I am beginning to use a ruler to measure length and height in centimetres</p> <p>I can compare the mass/weight of different objects (for example, heavy/light, heavier than, lighter than)</p> <p>I can use a balance scales to compare the mass of objects</p> <p>I can use non-standard units to measure the mass of objects e.g. cubes</p> <p>I can compare the volume in different containers (for example, full/empty, more than, less than, half, half full, quarter)</p> <p>I can measure the capacity of different containers using non-standard units of measure e.g. cups</p> <p>I can compare the capacity of different containers using non-standard units of measure</p>	<p>Money I can recognise and know the value of different denominations of coins and notes</p> <p>Time I can sequence events in chronological order using language (e.g. before, after, next, first, today, yesterday, tomorrow, morning, afternoon, evening)</p> <p>I can recognise and use language relating to dates, including days of the week, weeks, months and years.</p> <p>I know how to 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>I can compare, describe and solve practical problems for time.</p> <p>I can measure and begin to record time (hours, minutes, seconds)</p>

		I can solve practical problems for length and height, weight and mass and capacity and volume	
Geometry Shape and position and direction	Shape I can recognise and know the names of common 2D shapes: circle, triangle, rectangle (including square) I can recognise and name common 3D shapes: cuboids (including cubes), pyramids and spheres		Position and direction I can describe position, direction and movement, including whole, half, quarter and three-quarter turns.

Year Two

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Learning Project	Magical Mapping/Bonfire Night and The Great Fire of London		Our Wonderful World/Amazing Activists		Sensational Safari/Holidays	
Subject Focus	Place value Addition and subtraction Shape		Money Multiplication and division Length and height Fractions		Time Mass, capacity and temperature Statistics Position and direction	
Number and Place Value	<p>I can count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward</p> <p>I can read and write numbers to at least 100 in numerals and in words</p> <p>I can identify, represent and estimate numbers using different representations, including the number line</p> <p>I know the place value of each digit in two digit number (tens and ones)</p> <p>I can compare and order numbers from 0 up to 100; use <, > and = signs</p> <p>I can use place value and number facts to solve problems</p>					
Addition and Subtraction	<p>I can recall and use addition and subtraction facts to 10 and then 20 fluently and derive and use related facts up to 100</p> <p>I can show that addition can be done in any order (commutative) and subtraction of one number from another cannot.</p> <p>I can recognise and use the inverse relationship between addition and subtraction and use this to check</p>		<p>I can recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100</p> <p>I can solve missing number problems</p>		<p>I can recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100</p>	

	<p>calculations and solve missing number problems</p> <p>I can add and subtract numbers using concrete objects, pictorial representations and mentally, including:</p> <ul style="list-style-type: none"> two-digit numbers and ones two-digit numbers and tens two two-digit numbers adding three one-digit numbers <p>I can solve problems with addition and subtraction</p> <p>I can apply increasing knowledge of mental and written methods</p>		
<p>Multiplication and Division</p>		<p>I can count in 2's, 5's and 10's</p> <p>I can recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</p> <p>I can 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>I can show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot</p> <p>I can solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in context</p>	<p>I can recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</p>

		I know odd and even numbers	
Fractions		<p>I can 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>I can recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.</p> <p>I can write simple fractions for example, $\frac{1}{2}$ of 6 = 3.</p>	
Measures		<p>Money I know and use symbols for pounds (£) and pence (p)</p> <p>I can combine amounts to make a particular value. I can find different combinations of coins that equal the same amounts of money.</p> <p>I can solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.</p> <p>I can count in 2's, 5's and 10's</p> <p>Length and height I can choose and use appropriate standard units to estimate and measure length/height (m/cm); to the nearest appropriate unit, using rulers.</p> <p>I can compare and order lengths and heights and record the results using >, < and =</p>	<p>Time I can compare and sequence intervals of time.</p> <p>I can 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>I know the number of minutes in an hour and the number of hours in a day.</p> <p>Mass/weight I can choose and use appropriate standard units to estimate and measure mass (kg/g); to the nearest appropriate unit, using scales.</p> <p>I can compare and order mass and record the results using >, < and =.</p> <p>Capacity and volume I can choose and use appropriate standard units to estimate and measure capacity (litres/ml) to the nearest appropriate unit, using measuring vessels.</p>

			<p>I can compare and order volume/capacity and record the results using $>$, $<$ and $=$.</p> <p>Temperature I can choose and use appropriate standard units to estimate and measure temperature ($^{\circ}\text{C}$) to the nearest appropriate unit, using thermometers</p>
Geometry	<p>Shape</p> <p>2D I can identify and describe the properties of 2D shapes, including the number of sides, vertices and line symmetry in a vertical line</p> <p>I can identify 2D shapes on the surface of 3D shapes</p> <p>I can compare and sort common 2D shapes and everyday objects.</p> <p>3D I can identify and describe the properties of 3D shapes, including the number of edges, vertices and faces</p> <p>I can compare and sort common 2D shapes and everyday objects.</p>		<p>Position and Direction I can order and arrange combinations of mathematical objects in patterns and sequences</p> <p>I can 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>
Statistics			<p>I can count in 2's, 5's and 10's</p> <p>I can interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</p> <p>I can ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</p> <p>I can ask and answer questions about totalling and comparing categorical data.</p>

