



Maths Progression at St Michael's Nursey and Infant School

Number and Place Value	Early Years	Year 1	Year 2
Counting	<ul style="list-style-type: none"> Subitise numbers to 5 Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). Understand the 'one more than/one less than' relationship between consecutive numbers. 	<ul style="list-style-type: none"> Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens Identify one more and one less of a given number 	<ul style="list-style-type: none"> Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward
Comparing	<ul style="list-style-type: none"> Compare using language more than, less than and fewer. 	<ul style="list-style-type: none"> Use the language of: equal to, more than, less than (fewer), most, least 	<ul style="list-style-type: none"> Compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs
Represent		<ul style="list-style-type: none"> Identify and represent numbers using objects and pictorial representations including the number line 	<ul style="list-style-type: none"> Identify, represent and estimate numbers using different representations, including the number line
Reading and Writing Numbers	<ul style="list-style-type: none"> Link the number symbol (numeral) with its cardinal number value. 	<ul style="list-style-type: none"> Read and write numbers from 1 to 20 in numerals and words. 	<ul style="list-style-type: none"> Read and write numbers to at least 100 in numerals and in words.
Understanding Place Value	<ul style="list-style-type: none"> Have a deep understanding of number to 10, including the composition of each number. 		<ul style="list-style-type: none"> Recognise the place value of each digit in a two-digit number (tens, ones)
Problem Solving		<ul style="list-style-type: none"> Use place value and number facts to solve problems. 	

Addition and Subtraction	Early Years	Year 1	Year 2
Recall, Represent, Use	<ul style="list-style-type: none"> Automatically recall number bonds for numbers 0-5 and some to 10. Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally. 	<ul style="list-style-type: none"> Represent and use number bonds and related subtraction facts within 20 Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs 	<ul style="list-style-type: none"> Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

Calculations	<ul style="list-style-type: none"> Explore the composition of numbers to 10. 	<ul style="list-style-type: none"> Add and subtract one-digit and two-digit numbers to 20, including zero 	<ul style="list-style-type: none"> Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <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
Solve Problems		<ul style="list-style-type: none"> Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = * - 9$ 	<ul style="list-style-type: none"> Solve problems with addition and subtraction: <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

Multiplication and Division	Early Years	Year 1	Year 2
Recall, Represent, Use		<ul style="list-style-type: none"> Count in multiples of twos, fives and tens 	<ul style="list-style-type: none"> Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
Calculations			<ul style="list-style-type: none"> Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs
Problem Solving		<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts

Fractions	Early Years	Year 1	Year 2
Recognise and write		<ul style="list-style-type: none"> Recognise, find and name a half as one of two equal parts of an object, shape or quantity 	<ul style="list-style-type: none"> 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
Calculations			<ul style="list-style-type: none"> Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.
Measurement	Early Years	Year 1	Year 2
Using Measures	<ul style="list-style-type: none"> Make comparisons between objects relating to size, length, weight and capacity. Compare length, weight and capacity. 	<ul style="list-style-type: none"> Compare, describe and solve practical problems for: <ul style="list-style-type: none"> lengths and heights [e.g. long/short, longer/shorter, tall/short, double/half] mass/weight [e.g. heavy/light, heavier than, lighter than] capacity and volume [e.g. full/empty, more than, less than, half, half full, quarter] time [e.g. quicker, slower, earlier, later] Measure and begin to record: <ul style="list-style-type: none"> lengths and heights mass/weight capacity and volume Time 	<ul style="list-style-type: none"> Compare and order lengths, mass, volume/capacity and record the results using >, < and = 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
Money		<ul style="list-style-type: none"> Recognise and know the value of different denominations of coins and notes 	<ul style="list-style-type: none"> 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
Time	<ul style="list-style-type: none"> Begin to describe a sequence of events, real or 	<ul style="list-style-type: none"> Sequence events in chronological order using language [e.g. before and 	<ul style="list-style-type: none"> Compare and sequence intervals of time

	fictional, using words such as 'first', 'then...	<p>after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]</p> <ul style="list-style-type: none"> Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. Recognise and use language relating to dates, including days of the week, weeks, months and years 	<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.
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Geometry	Early Years	Year 1	Year 2
2D Shapes	<ul style="list-style-type: none"> Talk about and explore 2D and 3D shapes using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'. Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc. Combine shapes to make new ones – an arch, a bigger triangle, etc. Select, rotate and manipulate shapes in order to develop spatial reasoning skills. 	<ul style="list-style-type: none"> Recognise and name common 2-D and 3-D shapes, including: <ul style="list-style-type: none"> 2-D shapes [e.g. rectangles (including squares), circles and triangles] 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres]. 	<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 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 shapes and everyday objects
3D Shapes	<ul style="list-style-type: none"> Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. 		<ul style="list-style-type: none"> Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces Compare and sort common 3-D shapes and everyday objects
Position and Direction	<ul style="list-style-type: none"> Understand position through words alone – for example, "The bag is under the table," – with no pointing. Describe a familiar route. 	<ul style="list-style-type: none"> Describe position, direction and movement, including half, quarter and three-quarter turns. 	<ul style="list-style-type: none"> 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)
Pattern	<ul style="list-style-type: none"> Talk about and identifies the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc. Extend and create ABAB patterns – stick, leaf, stick, leaf. 		<ul style="list-style-type: none"> Order and arrange combinations of mathematical objects in patterns and sequences

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| | <ul style="list-style-type: none">• Notice and correct an error in a repeating pattern. | | |
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