## Maths Curriculum Progression of Skills and Knowledge



	EYFS			Year 1	Year 2
Number and Place Value	3-4 Year Olds	<ul> <li>Develop fast recognition of up to 3 objects, without having to count them individually ('subitising').</li> <li>Recite numbers past 5.</li> <li>Say one number for each item in order: 1,2,3,4,5.</li> <li>Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').</li> <li>Show 'finger numbers' up to 5.</li> <li>Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.</li> <li>Experiment with their own symbols and marks as well as numerals.</li> </ul>		<ul> <li>count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</li> <li>count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens</li> <li>given a number, identify one more and one less</li> <li>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</li> <li>read and write numbers from 1 to 20 in numerals and words</li> </ul>	<ul> <li>count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backwards</li> <li>recognise the place value of each digit in a two- digit number (tens, ones)</li> <li>identify, represent and estimate numbers using different representations, including the number line</li> <li>compare and order numbers from 0 up to 100; use</li> <li>&lt;, &gt; and = signs</li> <li>read and write numbers to at least 100 in numerals and in words</li> <li>use place value and number facts to solve problems.</li> </ul>
	Children in Reception	<ul> <li>Count objects, actions and sounds.</li> <li>Subitise.</li> <li>Link the number symbol (numeral) with its cardinal number value.</li> <li>Count beyond 10</li> <li>Compare Numbers</li> </ul>			
	ELG	<ul> <li>Number</li> <li>Have a deep understanding of number to 10, including the composition of each number.</li> <li>Subitise (recognise quantities without counting) up to 5.</li> <li>Automatically recall (without reference to rhymes, counting or other aids) number bonds</li> </ul>	<ul> <li>Numerical Patterns</li> <li>Verbally count beyond 20, recognising the pattern of the counting system.</li> <li>Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.</li> <li>Explore and represent patterns within</li> </ul>		

Addition and Place Value	3-4 Year Olds Children in Reception ELG	up to 5 (including subtraction facts) and some number bonds to 10, including double facts. • Solve real world mathem numbers up to 5. • Compare quantities using 'fewer than'. • Understand the 'one mo relationship between cons • Explore the composition • Automatically recall num 10. Number • Have a deep understanding of number to 10, including the composition of each number. • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including	g language: 'more than', re than/one less than' ecutive numbers. of numbers to 10. ber bonds for numbers 0– Numerical Patterns • Verbally count beyond 20, recognising the pattern of the counting system. • Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity. • Explore and represent	<ul> <li>read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</li> <li>represent and use number bonds and related subtraction facts within 20</li> <li>add and subtract one-digit and two-digit numbers to 20, including zero</li> <li>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ - 9.</li> </ul>	<ul> <li>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</li> <li>recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</li> <li>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</li> <li>show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot</li> <li>recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems</li> </ul>
Addition and Pla		<ul> <li>Automatically recall (without reference to rhymes, counting or other aids) number bonds</li> </ul>	contexts, recognising when one quantity is greater than, less than or the same as the other quantity.		<ul> <li>number from another cannot</li> <li>recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing</li> </ul>

Multiplication and Division	3-4 Year Olds Children in Reception			• 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> <li>recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</li> <li>calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs</li> </ul>
	ELG	Number	Numerical Patterns		<ul> <li>show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot</li> <li>solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.</li> </ul>
Fractions, Decimals and Percentages	3-4 Year Olds			<ul> <li>recognise, find and name a half as one of two equal parts of an object, shape or quantity</li> <li>recognise, find and name a quarter as one of four equal parts of an object, shape or quantity</li> </ul>	<ul> <li>recognise, find, name and write fractions <sup>1</sup>/<sub>3</sub>, <sup>1</sup>/<sub>4</sub>, 2/4 and <sup>3</sup>/<sub>4</sub> of a length, shape, set of objects or quantity</li> <li>write simple fractions e.g. <sup>1</sup>/<sub>2</sub> of 6 = 3 and recognise the equivalence of two quarters and one half.</li> </ul>
	Children in Reception				
	ELG	Number	Numerical Patterns		
Measurement	3-4 Year Olds	<ul> <li>Make comparisons between objects relating to size, length, weight and capacity.</li> <li>Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then'</li> </ul>		<ul> <li>compare, describe and solve practical problems for:         <ul> <li>lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]</li> <li>mass/weight [for example, heavy/light, heavier than,</li> </ul> </li> </ul>	<ul> <li>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</li> </ul>
	Children in Reception	• Compare length, weight and capacity.		<ul> <li>Initial processing the statistic control of the statistic cont</li></ul>	<ul> <li>and measuring vessels</li> <li>compare and order lengths, mass, volume/capacity and record the results using &gt;, &lt; and =</li> <li>recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value</li> <li>find different combinations of coins that equal the same amounts of money</li> </ul>

	ELG	Number	Numerical Patterns	time (hours, minutes, seconds)	• solve simple problems in a practical context
	ELG	Number	Numerical Fallerins	recognise and know the value of different	involving addition and subtraction of money of the
				denominations of coins and notes	same unit, including giving
				sequence events in chronological order using	change
				language [for example, before and after, next, first,	compare and sequence intervals of time
				today, yesterday, tomorrow,	<ul> <li>tell and write the time to five minutes, including</li> </ul>
				morning, afternoon and evening]	quarter past/to the hour and draw the hands on a
				<ul> <li>recognise and use language relating to dates,</li> </ul>	clock face to show these
				including days of the week, weeks, months and years	times
				• tell the time to the hour and half past the hour and	<ul> <li>know the number of minutes in an hour and the</li> </ul>
				draw the hands on a clock face to show these times	number of hours in a day.
	3-4 Year	• Talk about and explore 2	D and 3D shapes (for	• Recognise and name common 2-D and 3-D shapes,	• identify and describe the properties of 2-D shapes,
	Olds	example, circles, rectangles, triangles and cuboids)		including:	including the number of sides and line symmetry in a
		using informal and		2-D shapes [for example, rectangles (including	vertical line
		mathematical language: 'sides', 'corners'; 'straight',		squares), circles and triangles]	<ul> <li>identify and describe the properties of 3-D shapes,</li> </ul>
		'flat', 'round'.		3-D shapes [for example, cuboids (including cubes),	including the number of edges, vertices and faces
		Select shapes appropriately: flat surfaces for		pyramids and spheres.	<ul> <li>identify 2-D shapes on the surface of 3-D shapes,</li> </ul>
		<ul> <li>building, a triangular prism for a roof etc. Combine</li> <li>shapes to make new ones - an</li> <li>arch, a bigger triangle etc.</li> <li>Talk about and identify the patterns around them.</li> </ul>			[for example, a circle on a cylinder and a triangle on
					a pyramid]
					<ul> <li>compare and sort common 2-D and 3-D shapes and</li> </ul>
be					everyday objects.
sha		For example: stripes on clo	thes, designs on rugs and		
of		wallpaper.			
ies		• Use informal language lik	ce 'pointy', 'spotty', 'blobs'		
ert		etc.			
do		Extend and create ABAB patterns – stick, leaf, stick, leaf.     Notice and correct an error in a repeating pattern			
Ā					
Geometry – Properties of Shape		<ul> <li>Notice and correct an error in a repeating pattern.</li> <li>Select, rotate and manipulate shapes in order to</li> </ul>			
net	Children in	•	•		
eoi	Reception	<ul> <li>develop spatial reasoning skills.</li> <li>Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.</li> </ul>			
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		Continue, copy and create repeating patterns.			
	ELG	Number	Numerical Patterns	-	
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try - Position and Direction	3-4 Year Olds Children in Reception	<ul> <li>Understand position through words alone – for example, "The bag is under the table," – with no pointing.</li> <li>Describe a familiar route.</li> <li>Discuss routes and locations, using words like 'in front of' and 'behind'.</li> </ul>		• describe position, direction and movement, including whole, half, quarter and three-quarter turns	<ul> <li>order and arrange combinations of mathematical objects in patterns and sequences</li> <li>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).</li> </ul>
Geometry	ELG	Number	Numerical Patterns		
	3-4 Year Olds				<ul> <li>interpret and construct simple pictograms, tally charts, block diagrams and simple tables</li> <li>ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity</li> </ul>
Statistics	Children in Reception				<ul> <li>ask and answer questions about totalling and comparing categorical data.</li> </ul>
	ELG	Number	Numerical Patterns		