Maths Program of Study Curriculum Map

Yr R Maths	Numbers	Shape, space and measure
30 – 50 months	• Uses some number names and number language spontaneously. • Uses some number names accurately in play. • Recites numbers in order to 10. • Knows that numbers identify how many objects are in a set. • Beginning to represent numbers using fingers, marks on paper or pictures. • Sometimes matches numeral and quantity correctly. • Shows curiosity about numbers by offering comments or asking questions. • Compares two groups of objects, saying when they have the same number. • 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 numerals in the environment. • Shows an interest in representing numbers. • Realises not only objects, but anything can be counted, including steps, claps or jumps.	• Shows an interest in shape and space by playing with shapes or making arrangements with objects. • Shows awareness of similarities of shapes in the environment. • Uses positional language. • Shows interest in shape by sustained construction activity or by talking about shapes or arrangements. • Shows interest in shapes in the environment. • Uses shapes appropriately for tasks. • Beginning to talk about the shapes of everyday objects, e.g. '*round*' and '*tall*'.
40 – 60+ months	• 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. • Selects the correct numeral to represent 1 to 5, then 1 to 10 objects. • Counts an irregular arrangement of up to ten objects. • 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. • 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. **Early Learning Goal** 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.	• 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. • Uses everyday language related to time. • Beginning to use everyday language related to money. • Orders and sequences familiar events. • Measures short periods of time in simple ways. **Early Learning Goal** 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.

	Number and Place Value	Number – Addition and Subtraction	Number - Multiplication and Division	Number - Fractions	Number - Measurement	Geometry
Year R	• 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. • Selects the correct numeral to represent 1 to 5, then 1 to 10 objects. • Counts an irregular arrangement of up to ten objects. • Estimates how many objects they can see and checks by counting them. **ELG** **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.**	• 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. • 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. **ELG** **Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer.**	**ELG** **They solve problems, including doubling, halving and sharing.**		• Orders two or three items by length or height. • Orders two items by weight or capacity. • Uses everyday language related to time. • Beginning to use everyday language related to money. • Orders and sequences familiar events. • Measures short periods of time in simple ways. **ELG** **Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems.**	• 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*'. • Uses familiar objects and common shapes to create and recreate patterns and build models. **ELG** **They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them.**

	Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions	Measurement	Geometry
Year 1	- 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 2's, 5's and 10's. -Given a number, identify 1 more and 1 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 -Read and write numbers from 1 to 20 in numerals and words.	-Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs -Represent and use number bonds and related subtraction facts within 20 -Add and subtract one-digit and two-digit numbers to 20, including zero -Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = – 9.	-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.	-Recognise, find and name a half as one of two equal parts of an object, shape or quantity -Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.	-Compare, describe and solve practical problems for: -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] -Measure and begin to record the following: ▢ lengths and heights ▢ mass/weight ▢ capacity and volume ▢ time (hours, minutes, seconds) -Recognise and know the value of different denominations of coins and notes -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 -Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.	**Properties of shapes** -recognise and name common 2-D and 3-D shapes, including: -2-D shapes [for example, rectangles (including squares), circles and triangles] -3-D shapes [for example, cuboids (including cubes), pyramids and spheres]. **Position and direction** -Describe position, direction and movement, including whole, half, quarter and three-quarter turns.

Year 2	Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions	Measurement	Geometry
	-Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward -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 -Read and write numbers to at least 100 in numerals and in words -Use place value and number facts to solve problems	-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 -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: ⬚ two-digit number and ones ⬚ a two-digit number and tens ⬚ two two-digit numbers ⬚ adding three one-digit numbers -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.	recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers ⬚ calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs ⬚ show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot ⬚ solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	recognise, find, name and write fractions 1/3, ¼, 2/4 and ¾ of a length, shape, set of objects or quantity ⬚ write simple fractions for example, ½ of 6 = 3 and recognise the equivalence of 2/4 and 1/2.	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 ⬚ compare and order lengths, mass, volume/capacity and record the results using >, < and = ⬚ 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 ⬚ compare and sequence intervals of time ⬚ 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.	**Properties of shapes** 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. **Position and direction** 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). **Statistics** interpret and construct simple pictograms, tally charts, block diagrams and simple tables ⬚ ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity ⬚ ask and answer questions about totalling and comparing categorical data.

	Number and Place Value	Addition and Subtraction	Measurement			Geometry	
			Mass	Capacity	General		
Year R	**COUNTING** number zero, one, two, three… to twenty and beyond zero, ten, twenty… one hundred none how many…? count, count (up) to count on (from, to) count back (from, to) count in ones, twos… tens… more, less, many, few odd, even every other how many times? pattern, pair guess how many, estimate nearly, close to, about the same as just over, just under too many, too few, enough, not enough the same number as, as many as Of two objects/amounts: greater, more, larger, bigger less, fewer, smaller Of three or more objects/amounts: greatest, most, biggest, largest least, fewest, smallest one more, ten more one less, ten less compare order size first, second, third… tenth last, last but one before, after next between above, below	add, more, and make, sum, total altogether score double one more, two more, ten more… how many more to make… ? how many more is… than…? take (away), leave how many are left/left over? how many have gone? one less, two less… ten less… how many fewer is… than…? difference between is the same as	weigh, weighs, balances heavy/light, heavier/lighter, heaviest/lightest balance, scales, weight **Length** length, width, height, depth long, short, tall high, low wide, narrow deep, shallow thick, thin longer, shorter, taller, higher… and so on longest, shortest, tallest, highest… and so on far, near, close	full half full empty holds container **Time** time days of the week: Monday, Tuesday… day, week birthday, holiday morning, afternoon, evening, night bedtime, dinnertime, playtime today, yesterday, tomorrow before, after next, last now, soon, early, late quick, quicker, quickest, quickly slow, slower, slowest, slowly old, older, oldest new, newer, newest takes longer, takes less time hour, o'clock clock, watch, hands	measure size compare guess, estimate enough, not enough too much, too little too many, too few nearly, close to, about the same as just over, just under **Money** money coin penny, pence, pound price cost buy sell spend, spent pay change dear, costs more cheap, costs less, cheaper costs the same as how much…? how many…? total	shape, pattern flat curved, straight round hollow, solid corner face, side, edge, end sort make, build, draw cube pyramid sphere cone circle triangle square rectangle star size bigger, larger, smaller symmetrical pattern repeating pattern match movement slide roll turn stretch, bend	position over, under above, below top, bottom, side on, in outside, inside around in front, behind front, back before, after beside, next to opposite apart between middle, edge corner direction left, right middle up, down forwards, backwards, sideways across close, far, near along through to, from, towards, away from

	Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions	Measurement	Geometry
Year 1 Yr R vocab +	Pattern Answer Count in fives half-way between sequence continue number sentence sign, operation place value ones and tens exchange digit 'teens' number equal to Read and write numbers from 1 to 20 in numerals and words.	+, plus, put together Near double How much more is . . . ? -, subtract, minus, difference How much less is . . .? Half, halve =, equals, sign Counting on Counting back Number bonds Distance between Inverse	lots of, groups of, times, once, twice, three times… ten times… times as (big, long, wide… and so on) array repeated addition double, halve share, share equally one each, two each, three each… group in pairs, threes… tens equal groups of	part, equal parts fraction one whole one half, two halves one of two equal parts one quarter one of four equal parts	Metre, ruler, metre stick Kilogram, seasons: spring, summer, autumn, winter month, year, weekend January . . . December fast, faster, fastest minute half past how long ago? how long will it be to…? how long will it take to…? how often? always, never, often, sometimes, usually once, twice bought £, notes Capacity Litre	point, pointed cuboid cylinder underneath centre whole turn, half turn half quarter turn three quarter turn visualise **Statistics** pictogram block diagram
Year 2 Yr R & Yr 1 vocab +	Mental calculation Jotting Two hundred . . . one thousand Count in threes and fours Tally Multiple of Rule Place Hundreds Exchange Greater than > Less than <	Addition One hundred more Subtraction One hundred less Tens boundary commutative	multiply, multiplied by multiple of row, column divide, divided by, divided into left, left over x ÷	two… three… four quarters	Further, furthest Centimetre cm Metre m Tape measure Half kilogram kg , gram g Litre L, half litre, millilitre ml Fortnight Seconds, quarter to / past Temperature˚C	Surface Vertices Vertical line of symmetry Clockwise Anti clockwise Quarter turn **Statistics** Table Tally chart Data