Maths Progression

Unit	Foundation Stage	Year 1	Year 2
Place value	Reception: Subitise. Link the number symbol (numeral) with its cardinal number value. Understand the 'one more than/one less than' relationship between consecutive numbers. Count objects, actions and sounds. Count beyond 10. Compare numbers. **ELG:** Have a deep understanding of number to 10, including the composition of each number; Subitise (recognise quantities without counting) up to 5; 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;	I know how to count, read and write numbers to 100 in numerals; I know, when given a number, how to identify one more and one less. I know how to use the language of: equal to, more than, less than (fewer), most, least. I know how to identify and represent numbers using objects and pictorial representations including the number line. I know how to read and write numbers from 1 to 20 in numerals and words. I can count in multiples of twos, fives and tens. I can count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.	I know how to compare and order numbers from 0 up to 100; using and = signs. I know how to round twodigit numbers to the nearest 10. I know how to identify, represent and estimate numbers using different representations, including the number line. I know how to read and write numbers to at least 100 in numerals and in words. I know the place value of each digit in a two-digit number (tens, ones). I can count in steps of 2, 3 and 5 from 0, and in tens from any number, forward or backward. I can use place value and number facts to solve problems. I can use place value and

	Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.		number facts to solve problems.
Vocabulary	How many…?, count, Number More / fewer Manipulatives e.g. animals, people, cubes ,Number cards number names, subitising Greater than/less than quantity None Before/after The same Odd/even Digit order	0-100, 10/1 more, 10/1 less, numeral, digit, in order, first, second, third…, order, size, value, odd/even, between, halfway between, above, below, ones, tens, represent, beginning with 0, greater than, less than, more, less, equal to bead string, cubes, pictorial representations,	1-100, hundreds, 3 digit number, place, place value, partition, hundred more/less, hundreds column, compare, order, in words, greater than/less than/equal to symbols
Addition and subtraction	Reception: Explore the composition of numbers to 10. Automatically recall number bonds for number 0-10. **ELG:** Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts; Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.	I know how to represent and use number bonds and related subtraction facts within 20. I know how to read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in written methods). I can add and subtract one digit and two-digit numbers to 20, including zero. I can solve one-stop problems that involve addition and subtraction, using concrete objects and pictorial representations, and	I know how to recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. I know that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. I know and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. I can halve and double 2 digit numbers. I can add and subtract

		missing number problems such as 7 = □ - 9.	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. I can solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures and applying their increasing knowledge of mental and written methods. I can solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.
Vocabulary	add, more, less, take-away, equals, How many…?, altogether, more than, fewer than, the same as, equal to, how many more do we need? Double, half, add, plus, make, subtract, take away, minus Tens frames, double sided counters, objects, number bonds, number line plus, make, sum, total, subtract, minus, fewer,	number bonds, number line plus, make, sum, total, subtract, minus, fewer, inverse, double, near double, is the same as, equals symbol, find the difference, difference between, How many more make…? How many more/fewer is…than…? How much more is…? count on, count back take from, taken from hoops, numbers 0 – 10 with pictorial representations, number cards, number tracks, hundred squares inverse part-whole model	Bar models

	inverse, double, near double, is the same as, equals symbol, find the difference, difference between, How many more make…? How many more/fewer is…than…? How much more is…? count on, count back take from, taken from hoops, numbers 0 – 10 with pictorial representations, number cards, number tracks, hundred squares		
Multiplication and division		I know how to count in multiples of twos, fives and tens. 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 the teacher.	know, can recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. I know that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. I can calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs. I can solve problems including multiplication and division, using

			materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
Vocabulary	Equal, sharing, groups, compare, fair, odd, even, double, half,	count in twos, threes, fives, count in tens, forwards, backwards, How many times? lots of, groups of, once, twice, three times, five times, times, by, double, halve, share, share equally, group in pairs, threes, etc, equal groups of, divide, divided by, left, left over,	Times tables, times , multiplied by, array, row, column, repeated addition, repeated subtraction, equal groups, divide by, divide, division
Fractions		I know that a half is one of two equal parts of an object, shape or quantity. I know a quarter as one of four equal parts of an object, shape or quantity.	I know, recognise, find, name and write fractions ½ ¼ ¾ 1/3 2/4 and / of a length, shape, set of objects or quantity. I can write simple fractions e.g. ½ of 6 = 3 and recognise the simple equivalence.
Vocabulary	Whole Equal Half	whole, equal parts, four equal parts, one half, two halves, a quarter, two quarters, pictorial representation of…	three quarters, one third, a third, equivalence, equivalent
Measurement	Reception: Compare length, weight and capacity. I can begin to use measuring tools (timers and stopwatches) in everyday experiences and play I can order and sequence events using everyday language related to time I know that time can be measured with	I know how to compare, describe and solve practical problems for: • Lengths and heights • Mass/weight (e.g. heavy/light, heavier than, lighter than) • Capacity and volume (e.g. full/empty, more than, less than,	I know the number of minutes in an hour and the number of hours in a day. I know how to choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g);

	calendars (e.g. singing days of the week / months of the year song / discussing class calendar)	half, half full, quarter) time (e.g. quicker, slower, earlier, later). I know and recognise the value of different denominations of coins and notes. 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. I know, recognise and use language relating to dates, including days of the week, weeks, months and years. I can sequence events in chronological order using language (e.g. before and after, next, first, today, yesterday). I can measure and begin to record the following: lengths and heights, mass/weight, capacity/volume and time (hours, minutes, seconds).	temperature (°C); capacity (litres/ml) to the nearest appropriate unit using rules, scales, thermometers and measuring vessels. Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. I can compare and order lengths, mass, volume/capacity and record the results using >, < and =. I can compare and sequence intervals of time. I can solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. 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.
Vocabulary	Bigger ,smaller ,longer ,shorter , heavy, light, more, less , length, weight, capacity, exactly, long, short, bigger than, smaller than, heavier than, lighter than, empty, full, half full, today, yesterday, tomorrow, day before, day after, first, then, now, after, every day, every evening, morning, afternoon,	mass, weight, capacity, full, half full, empty, holds, container, weigh, weighs, balances, heavy, heavier, heaviest, light, lighter, lightest, scales, time, days of the week, seasons, day, week, month, year, weekend, birthday, holiday, morning, afternoon, evening, night, midnight, midday, bedtime,	quarter past/to metres, kilometre, m, km, grams, g, kilograms, kg, ml, millilitre, litres, L, temperature, degrees £ p

	evening, night-time, earlier, later, too late, too soon, in a minute, days of the week, seasons, birthday, coins, containers, scales, balance	dinnertime, playtime, today, yesterday, tomorrow, takes longer, takes less time, hour, o'clock, half past, hands, clock, watch, How long ago…? How long will it be to…? How long will it take to…? How often…? before, after, next, last, now, soon, early, late, quick, quicker, quickest, fast, faster, fastest, slow, slower, slowest, slowly, old, older, young, younger, youngest always, never, sometimes, usually, once, twice, first, second, third etc. estimate, close to, about the same, just over, just under, too many, too few, not enough, enough, width, depth, long, longer, longest, short, shorter, shortest, tall, taller, tallest, high, higher, highest low, wide, narrow, deep, shallow, thick, thin, far, close, near metre, ruler, metre stick How many…? How much…? money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, dear, costs, cheaper, same as, total	
Geometry	Reception: Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'.	I know the name of common 2-D shapes, including: rectangles, squares, circles and triangles. I know the name 3-D shapes: cuboids, cubes, pyramids and spheres.	I know how to recognise and describe the properties of 2-D shapes, including the number of sides and line of symmetry in a vertical line. I know how to recognise and describe the properties of 3D

	Combine shapes to make new ones – an arch, a bigger triangle, etc. Understand position through words alone – for example, "The bag is under the table," – with no pointing. Discuss routes and locations, using words like 'in front of' and 'behind'. 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. Select, rotate and manipulate shapes in order to develop spatial reasoning skills. Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. Continue, copy and create repeating patterns.	I know how to describe position, direction and movement, including half, quarter and three-quarter turns.	shapes, including the number of edges, vertices and faces. I know to 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 threequarter turns (clockwise and anti-clockwise). I can identify 2-D shapes on the surface of 3-D shapes, (for example, a circle on a cylinder and a triangle on a pyramid). I can compare and sort common 2-D and 3-D shapes and everyday objects. I can order and arrange combinations of mathematical objects in patterns and sequences.
Vocabulary	Sharp, point, sides, corners, straight, flat, round, curvy, same, different, off, down, under, on top, in, on, up, next to, between, around, besides circle, triangle, oblong, square, cube, pyramid, cuboid, cone, sphere, cylinder, side, corner, edge, side, roll, turn, towards, away 2D shapes,	position, over, underneath, below, side, in, outside, inside, around, front, back, before, after, beside, opposite, apart, middle, journey, left, right, up, down, forwards, backwards, sideways, across, close, far, near, along, through, to, from, towards, away from, movement, slide, roll, turn, whole turn, half turn, left turn, right turn, quarter	rotation, clockwise, anticlockwise, straight line, ninety degree turn, right angle, full turn size, bigger, smaller, larger, symmetrical, line of symmetry, fold, match, mirror line, reflection, pattern, repeating pattern, base, diagonal, vertex, vertices

		turn, stretch, bend group, sort, cube, cuboid, pyramid, sphere, cone, cylinder, circle, triangle, square, shape, flat, curved, straight, round, hollow, solid, edge, centre, corner, direction, point, pointed, make, build, draw, rotated, vertex, vertices	
Statistics			I know how to use lists/tables/diagrams to sort objects. I can interpret and construct simple pictograms, tally charts, block diagrams and simple tables. I can ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. I can ask and answer questions about totalling and comparing categorical data.
Vocabulary			Table, quantity, data, sort, diagram, pictogram, tally, block diagram, table, list, count, vote, represent, most/least popular/common