Suffield Park Infant and Nursery School Progression Map for Maths

Confident, Resilient, Ambitious , Brilliant

Year Group	Knowledge	Skills	Vocabulary
Number and place value.			
Reception	**Range 5** To know and recognise some numerals of personal significance. To recognises numerals 1 to 5. To know how to counts objects to 10, and beginning to count beyond 10. To know how to counts out up to six objects from a larger group. To know how to counts an irregular arrangement of up to ten objects. To understand what the terms 'more' and 'fewer' mean. To know one more or one less from a group of up to five objects, then ten objects. **Range 6** Uses number names and symbols when comparing numbers, showing interest in large numbers Estimates of numbers of things, showing understanding of relative size Enjoys reciting numbers from 0 to 10 (and beyond) and back from 10 to 0 Discuss the order of numbers in context, e.g. finding a page number.Increasingly confident at putting numerals in order 0 to 10 (ordinality) Engages in subitising numbers to four and maybe five and counts out up to 10 objects from a larger group. Matches the numeral with a group of items to show how many there are (up to 10) **ELG: Number** Have a deep understanding of number to 10, including the composition of each number;- Subitise (recognise quantities without counting) up to 5	**Range 5** To touch count accurately: To assign one number name to each object that is being counted. To say numbers in order when counting. To understand that the number name assigned to the final object in the group is the total number of objects in the group. Selects the correct numeral to represent 1 to 5, then 1 to 10 objects eg. matching the number 5 to a group of 5 cars and number of 5 on a dice. To use the language of 'more' and 'fewer' to compare two sets of objects. To use concrete items (e.g. multilink cubes, counters) to say the number that is one more and one less (for a group of 5-10 objects). **Range 6** To estimate how many objects they can see and check by counting them. To understand which numbers are larger and which are smaller e.g. 15 is larger than 4. Can count forwards and backwards from 10 and beyond Can subitise number patterns up 5 Can order numbers 1-10 Can count up to 10 objects from a larger group **ELG Number** To recall number bond facts up to 5 and some up to 10	Zero, one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, number, digit, single digit, two-digit, count, order, more, less, touch coun, total.

	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. **ELG: Numerical pattern** 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 patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.	To be able to subitise up to 5 **ELG Numerical pattern** To count beyond 20 To be able to compare two sets of up to 10 objects and identify which set is less than, greater than or the same. To use concrete apparatus create patterns with numbers up to 10.	
Year 1	● To be able to count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. ● To count, read and write numbers to 100 in numerals, count in multiples of 2, 5 and 10. ● To be given a number and identify one more and one less. ● To identify and represent numbers using objects and pictorial representations including the number line. ● To know the language of equal to, more than, less than (fewer), most, least. ● To be able to read and write numbers from 1 to 20 in numerals and words.	● To Identify patterns when counting in ones e.g. 1, 2, 3…11,12,13 9, 8, 7 6…79 78 77 76 ● To cross the tens barrier forwards and backwards (e.g. 49-> 50 and 90->89). ● To identify patterns when counting in 2's, 5's and 10's (e.g. even numbers, all end in 0 2 4 6 8, all end in a 0 or a 5 etc.) ● To identify numbers to 100. ● To touch count accurately (1:1 correspondence – see Reception for a break down in skills). ● To read numbers represented in different ways (number lines, concrete objects and drawings).	Number, numeral, digit, single digit, two-digit, count, forwards, backwards, pattern, multiple, more, less, equal, fewer, numerals, touch count, tens, ones, hundred, order.

		● To represent numbers in different ways (number lines, concrete objects and drawings). ● To use the language of equal to, more than, less than (fewer), most and least. ● To represent numerals using concrete objects (pencils, counters, books etc.). ● To write numbers 1-20 in numerals. ● To write numbers 1-20 in words.	
Year 2	● To know how to count in steps of 2, 3 and 5 from 0, and in tens from any number forwards and backwards. ● To recognize the place value of each digit in a two digit number (tens and ones). ● To identify, represent and estimate number using different representations, including the number line. ● To know what < > and = signs mean. ● To read and write numbers to at least 100 in numerals and words. ● To use place value and number facts to solve problems.	● To Identify patterns when counting in 2's, 3's and 5's (e.g. even numbers, all end in a 0 2 4 6 8, end in a 0 or a 5 etc.) ● To identify the pattern when counting in tens from any number (e.g. tens number changes, ones stays the same). ● To identify and use 0 as a placeholder in a two-digit number. ● To identify tens and ones (e.g. 64 is made up of 6 tens and 4 ones, 64 = 60 + 4). ● To use place value to know which numbers are larger and which are smaller. ● To read numbers represented in different ways (number lines, concrete objects and drawings). ● To represent numbers in different ways (number lines, concrete objects and drawings). ● To use the < > = sign to compare and order numbers from 0 up to 100. ● To write numbers to at least 100 in numerals. ● To write numbers to at least 100 in words. ● To use knowledge of number and place value to solve word problems. E.g. Miss Cornwell thinks when you add ten to a two digit number the tens number stays the same. Is she right? Show me.	Number, numeral, digit, single digit, two-digit, count, forwards, backwards, pattern, multiple, greater than, less than, equal, place value, tens, ones, placeholder, order.

Year Group	Knowledge	Skills	Vocabulary
Addition and subtraction			
Reception	**Range 5** Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers • Beginning to use understanding of number to solve practical problems in play and meaningful activities • Beginning to recognise that each counting number is one more than the one before • Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same **Range 6** •Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects • Begins to conceptually subitise larger numbers by subitising smaller groups within the number, e.g. sees six raisins on a plate as three and three • Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and "+" or "-" **ELG** ● To 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.	**Range 5** ● To separate a group of three or four objects in different ways, beginning to recognise that the total is still the same. ● To touch count accurately: - To assign one number name to each object that is being counted. - To say numbers in order when counting. - To understand that the number name assigned to the final object in the group is the total number of objects in the group. **Range 6** ● In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting. ● To subitise groups of objects up to 5 ● To record, using marks that they can interpret and explain. ● In practical activities, adds one and subtracts one with numbers to 10 ● To touch count accurately: - To assign one number name to each object that is being counted. - To say numbers in order when counting. - To understand that the number name assigned to the final object in the group is the total number of objects in the group. **ELG** **CPA for solving addition and subtraction calculations:** **Concrete:** ● To touch count accurately: - To assign one number name to each object that is being counted. - To say numbers in order when counting. - To understand that the number name assigned to the final object in the group is the total number of objects in the group.	Addition, subtraction, equals, total, larger, smaller, count, touch count.

		● To use concrete apparatus to add two single-digit numbers e.g. multilink, counters, cars. ● To use concrete apparatus to subtract two single digit numbers e.g. multilink, counters, cars. ● To use concrete apparatus to solve doubling problems e.g. lady bird spots, dice. ● To use concrete apparatus partition single digit numbers e.g. 3 is made up of 1 and 2. **Pictorial:** ● To solve addition and subtraction problems by drawing a picture to help them. E.g. I have two sweets and get 4 more sweets how many sweets will I have altogether? Children to draw sweets/dots etc. ● To solve doubling problems by drawing a picture to help them. E.g. Drawing ladybird dots to find double 4. **Abstract:** ● To retain a number mentally and count on or back to solve addition and subtraction calculations using two single-digit numbers.	
Year 1	● To read, write and interpret mathematical statements involving addition (+), subtractions (-) and equals sign (=). ● To know, represent and use number bonds and related subtraction facts to 20. ● To know how to add and subtract one-digit and two-digit numbers to 20, including zero. ● To know how to solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 =___ - 9.	● To use the + symbol to calculate the total of two or more numbers/amounts. ● To use the – symbol to take one number away from another number. ● Begins to use the inverse to solve missing number problems. ● To spot patterns related to number bonds e.g. 4 + 6 = 10 so 14 + 6 = 10. ● To understand the link between addition and subtraction. **CPA for solving addition and subtraction calculations:** **Concrete** ● To select a resource to solve a calculation (numicon, multilink, base ten, number line etc.). ● To touch count accurately (1:1 correspondence – see Reception for a breakdown in skills).	Addition, subtraction, equals, number bonds, missing number, base ten, numicon, total, calculate, altogether, take away, minus, plus, patterns.

		Pictorial ● To draw two sets of dots to find the total of an addition calculation. ● To draw and cross out dots to find the answer to a subtraction calculation. ● To touch count accurately (1:1 correspondence – see Reception for a breakdown in skills). **Abstract** ● To retain a number mentally and count forwards/backwards to solve + and – calculations using numbers to 20.	
Year 2	● To know how to solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving number, quantities and measure. Applying their increasing knowledge of mental and written methods. ● To know, recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. ● To know how to add and subtract numbers using concrete objects, and mentally, including: - a two digit number and ones. - a two digit number and tens - two two-digit numbers - adding three one-digit numbers. ● To know that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. ● To know what the inverse is. To use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	● To use the + symbol to calculate the total of two or more numbers/amounts. ● To use the – symbol to take one number away from another number. ● To spot patterns related to number bonds e.g. 4 + 6 = 10 so 40 + 60 = 100 ● To use place value (tens and ones) to solve addition and subtraction calculations – including 0 as a placeholder. ● To be able to interpret word problems to decide if it needs to be an addition or a subtraction calculation – looking for key words e.g. how many do I have altogether? We know altogether means an addition calculation. ● To investigate the commutative rule. ● To understand the link between addition and subtraction. ● To use the inverse to solve missing number problems. ● To use the inverse to check missing number calculations. **CPA for solving addition and subtraction calculations:** **Concrete** ● To select a resource to support solving a calculation (numicon, multilink, base ten, number line etc.). ● To touch count accurately (1:1 correspondence – see Reception for a break down in skills).	Addition, subtraction, equals, number bonds, missing number, base ten, numicon, total, calculate, altogether, take away, minus, difference, plus, patterns, commutative, inverse, place value, tens, ones.

		Pictorial ● To draw a representation of tens and ones (e.g. sticks and dots) to solve addition and subtraction calculations. **Abstract** ● To mentally add a two-digit number and ones, a two-digit number and tens, two two-digit numbers, adding three one-digit numbers by counting on. ● To mentally subtract a two-digit number and ones, a two-digit number and tens, two two-digit numbers, adding three one-digit numbers by counting back. ● To use known strategies to support with adding and subtracting e.g. number bonds, near doubles, adding 11 – adding 10 plus 1.	
Year Group	**Knowledge**	**Skills**	**Vocabulary**
Multiplication and Division			
Reception	**ELG** ● - Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.	**ELG** ● To understand that sharing means splitting between a number. **CPA approach for sharing (building block for division)** **Concrete:** ● To be able to share using concrete objects e.g. having 6 sweets and sharing between two teddies. ● To touch count accurately: - To assign one number name to each object that is being counted. - To say numbers in order when counting. - To understand that the number name assigned to the final object in the group is the total number of objects in the group. **Pictorial:** ● To draw a picture to help solve a sharing problem e.g. drawing a picture of a teddy and sweets to solve sharing 6 sweets between two teddies.	Sharing, halving, half, equal, fair, dividing.

		● To touch count accurately: - To assign one number name to each object that is being counted. - To say numbers in order when counting. - To understand that the number name assigned to the final object in the group is the total number of objects in the group. **Abstract:** ● To be able to share into two by halving mentally.	
Year 1	● To know how to 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.	● To understand that x means 'groups of' e.g. 3 x 2 = 3 groups of 2. ● To understand that ÷ can mean sharing and putting into groups of e.g. 12 ÷ 3 = 12 shared between 3 or 12 into groups of 3. ● To use the x and ÷ signs to solve multiplication and division calculations. **CPA for solving multiplication and division:** **Concrete** ● To touch count accurately (1:1 correspondence – see Reception for a breakdown in skills). ● To use concrete apparatus (e.g. counters, paper plats, pictures, multilink) to create groups (x), share and/or put into groups (÷). **Pictorial** ● To draw an array made up of dots to solve multiplication calculations. ● To draw dots and group them to solve division calculations (grouping method ÷). ● To draw plates and dots to solve division calculations (sharing method ÷) ● To touch count accurately (1:1 correspondence – see Reception for a breakdown in skills). **Abstract**	Multiplication, multiply, groups of, lots of, sets of, array, counters, division, sharing, putting into groups of, problem solving.

		● To use the knowledge of counting in 2, 5 and 10 to solve multiplication and division calculations mentally.	
Year 2	● To know, recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers ● To know how to calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs ● To know that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot ● To know how to solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	● To understand that multiplication means 'groups of' e.g. 3 x 2 = 3 groups of 2. ● To understand that division can mean sharing and putting into groups of e.g. 12 ÷ 3 = 12 shared between 3 or 12 into groups of 3. ● To use the x and ÷ signs to solve multiplication and division calculations. ● To be able to interpret word problems to decide if it needs to be a multiplication or division – looking for key words e.g. I have 12 eggs and share them between 3 children. The word share means to divide. ● To investigate the commutative rule. ● To match repeated addition to multiplication calculations. **CPA for solving multiplication and division:** **Concrete** ● To touch count accurately (1:1 correspondence – see Reception for a breakdown in skills). ● To use concrete apparatus (e.g. counters, pictures, multilink) to create groups, share and put into groups. **Pictorial** ● To draw an array made up of dots to solve multiplication calculations. ● To draw dots and group them to solve division calculations (grouping method). ● To draw plates and dots to solve division calculations (sharing method ÷) ● To touch count accurately (1:1 correspondence – see Reception for a breakdown in skills). **Abstract** ● To use the knowledge of counting in 2, 5, 3 and 10 to solve multiplication and division calculations mentally.	Multiplication, multiply, groups of, lots of, sets of, array, counters, division, sharing, putting into groups of, commutative, times tables, repeated addition, problem solving.

Year Group	Knowledge	Skills	Vocabulary
Fractions			
Reception	**ELG** ● Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.	**ELG** ● To understand halving means sharing between two. ● To understand halving needs to be equal. **CPA approach for halving:** **Concrete:** ● To be able to halve using concrete objects e.g. having 6 sweets and halving between two children. ● To touch count accurately: - To assign one number name to each object that is being counted. - To say numbers in order when counting. - To understand that the number name assigned to the final object in the group is the total number of objects in the group. ● To half paper into two equal parts. **Pictorial:** ● To draw a picture to help solve a halving problem e.g. drawing a picture of a teddy and sweets to solve halving 6 sweets between two teddies. ● To touch count accurately: - To assign one number name to each object that is being counted. - To say numbers in order when counting. - To understand that the number name assigned to the final object in the group is the total number of objects in the group. **Abstract:** ● To be able to share into two by halving mentally.	Half, share, equal, fair.
Year 1	● To know, recognise, find and name a half as one of two equal parts of an object, shape or quantity	● To understand that fraction means a part of something – this could be an object, shape, number. ● To understand that fractions need to be split into equal parts.	Fractions, part of, equal, half, quarter, share,

	● To know, recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.	● To begin to use vocabulary related to fractions. **CPA for solving fractions of object/shape/quantity:** **Concrete** ● To fold paper shapes into two equal parts to find half. ● To fold paper shapes into four equal parts to find quarters. ● To use concrete apparatus (e.g. plates and counters) to find half and a quarter of a quantity. ● To touch count accurately (1:1 correspondence – see Reception for breakdown in skills). **Pictorial** ● To draw a line to split a shape into half. ● To draw lines to split a shape into quarters. ● To draw a representation of plates and counters to find half and quarter of a quantity. ● To touch count accurately (1:1 correspondence – see Reception for breakdown in skills). **Abstract** ● To find a half by splitting into two mentally. ● To find a quarter by halving and halving again mentally.	whole, fair, numerator, denominator.
Year 2	● To know, recognize, find, name and write fractions of length, shape, set of objects or quantity. ● To know how to write simple fractions (½ ¼ ¾ ⅓ 2/4) and to recognize equivalence.	● To understand that fraction means a part of something – this could be an object, shape, number. ● To understand that fractions need to be split into equal parts. ● To use vocabulary related to fractions. ● To compare fractions. ● To recognize equivalent fractions. **CPA for solving fractions of length, shape, objects, quantity:** **Concrete** ● To fold paper shapes to find ½ ¼ ¾ ⅓ 2/4 ● To use concrete apparatus (e.g. plates and counters) to find (½ ¼ ¾ ⅓ 2/4 of a length/quantity. ● To touch count accurately (1:1 correspondence – see Reception for breakdown in skills). **Pictorial**	Fractions, part of, equal, length, shape, amount, fair, half, quarter, two quarters, three quarters, one third, equivalence, greater than, equal to, less than, whole, share, numerator, denominator.

		● To draw lines to split shapes into ½ ¼ ¾ ⅓ $^{2}/_{4}$ ● To draw a representation of plates and counters to find ½ ¼ ¾ ⅓ $^{2}/_{4}$ ● To touch count accurately (1:1 correspondence – see Reception for breakdown in skills). **Abstract** ● To use knowledge of counting in 2, 3, 4 to solve fractions mentally. ● To find a quarter by halving and halving again mentally.	

Year Group	Knowledge	Skills	Vocabulary
Measurement			
Reception	**Range 5** In meaningful contexts, finds the longer or shorter, heavier or lighter and more/less full of two items • Recalls a sequence of events in everyday life and stories **Range 6** Enjoys tackling problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy • Becomes familiar with measuring tools in everyday experiences and play • Is increasingly able to order and sequence events using everyday language related to time • Beginning to experience measuring time with timers and calendars	**Range 5** ● To sequence familiar events e.g. the school day. ● To select the longer/shorter, heavier/lighter, more full/less full item/s in practical, meaningful contexts ● To use everyday language related to time e.g. fast, slow, now, next. **Range 6** ● To compare items by length, height, weight or capacity. ● Can predict and talk about if something is not fair or accurate in a practical activity ● To begin to use counting, stop watches, timers to measure a short period of time. ● Can identify some tools used to measure length, height and weight	Length, height, capacity, weight, order, measure, distance, time, money, big, small, full, empty, near, far, now, next, coins, notes.

Year 1	● To know how to compare, describe and solve practical problems for: - Lengths and heights - Mass/weight - Capacity and volume - Time ● To know how to measure and begin to record the following: - Lengths and heights - mass/weight - capacity and volume -Time ● To recognise and know the value of different denominations of coins and notes ● To know, recognise and use language relating to dates, including days of the week, weeks, months and years. ● To 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.	**Length/height** ● To hold and use a ruler/tape measure/meter stick correctly. ● To use a ruler/tape measure/meter stick to solve practical problems e.g. which is longer? Which is shorter? ● To read the scale on a ruler in cm. ● To use vocabulary related to length/height. **Mass/weight** ● To use balancing scales. ● To use scales to solve practical problems e.g. which item is heaviest? ● To use weighing scales. ● To read the scale on a weighing scale. ● To use vocabulary related to mass/weight. **Capacity/Volume** ● To use measuring vessels/containers. ● To use measuring vessels/containers to solve practical problems e.g. how many cups of water can each container hold? ● To read the scale on a measuring vessel. ● To use vocabulary related to capacity/volume. **Time** ● To use stop watches/timers to measure time. ● To use analogue clocks to read time (o'clock and half past). ● To draw hands on a clock to show o'clock and half past times. ● To use language relating to time (chronological order language, days, months, weeks etc.) ● To sequence events in chronological order using language.	Length, height, long, short, longer, shorter, tall, double, half, mass weight, heavy, light, heavier than, lighter than, capacity, volume, full, empty, more than, less than, half, half full, quarter, time, quicker, slower, earlier, later, hours, minutes, seconds, clock, ruler, tape measure, meter stick, cm, m, mm, balanced, scales, g, kg, container, before, after, next, first, today, yesterday, tomorrow, morning, afternoon, evening, months, days, weeks, year, o'clock, half past, analogue,

		Money ● To use vocabulary related to money.	coins, notes, amount, value.
Year 2	● To know, 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. ● To know how to compare and order lengths, mass, volume/capacity and record the results using >, < and = ● To know, recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value ● To know how to find different combinations of coins that equal the same amounts of money. ● To know how to solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. ● To know how to compare and sequence intervals of time. ● To know how to 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 ● To know the number of minutes in an hour and the number of hours in a day.	**Length/height** ● To hold and use a ruler/tape measure/meter stick correctly. ● To read the scale on a ruler in cm and m. ● To use vocabulary related to length/height. ● To use < > = to compare length. **Temperature** ● To read scales in divisions of 1, 2, 5 10 (practically on thermometers or on a number line) in °C. ● To estimate points in-between intervals on a thermometer. ● To use vocabulary related to temperature. ● To use < > = to compare temperature. **Mass/weight** ● To use weighing scales. ● To read scales in divisions of 1, 2, 5 10 (on a scale or number line) in g and kg. ● To estimate the points in between intervals on a scale. . ● To read the scale on a weighing scale. ● To use vocabulary related to mass/weight. ● To use < > = to compare weight. **Capacity/Volume** ● To use measuring vessels/containers. ● To use vocabulary related to capacity/volume. ● To read scales in divisions of 1, 2, 5 10 (on a measuring vessel or number line) in liters and ml. ● To use < > = to compare capacity. **Time** ● To use analogue clocks to read time (o'clock, half past, quarter to, quarter past). ● To tell the time in 5 minute intervals.	Length, height, m, cm, mass, weight, kg, g, temperature, °C, capacity, volume, liters, ml, rulers, scales, thermometers, measuring vessels, containers, greater than, less than, equal to, pounds, pence, coins, notes, amount, value, change, time, hour, minute, second, intervals, analogue, digital, day, month, year.

		Money ● To add amounts together to create a value (see addition skills). ● To use knowledge of subtraction to solve problems on giving change (see subtraction skills).	

Year Group	Knowledge	Skills	Vocabulary
Properties of Shape			
Reception	**Range 5** • Chooses items based on their shape which are appropriate for the child's purpose • Responds to both informal language and common shape names • Shows awareness of shape similarities and differences between objects • Enjoys partitioning and combining shapes to make new shapes with 2D and 3D shapes Range 6 Uses informal language and analogies, (e.g. *heart-shaped and hand-shaped leaves*), as well as mathematical terms to describe shapes • Enjoys composing and decomposing shapes, learning which shapes combine to make other shapes • Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build	**Range 5** ● Can choose the appropriate shape for a purpose in construction play e.g. triangular block for a roof or a wedge shaped block for a ramp etc. ● Can identify some common 2-D and 3-D shapes ● Can use familiar objects and common shapes to create and recreate patterns and build models. **Range 6** ● Can identify and name some common 2-D and 3-D shapes ● Explores and discusses how shapes can be partitioned and combined to create new shapes	2D, 3D, shape, flat, solid, square, circle, rectangle, triangle, cuboid, cube, cone, sphere, roll, round, flat, pointy.

Year 1	● To 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].	● To discuss which shapes are solid (3D) and which ones are flat (2D). ● To begin to discuss shapes based on their properties (e.g. triangle has 3 sides).	2D, 3D, sides, circle, square, triangle, rectangle, hexagon, octagon, pentagon, cube, cylinder, cuboid, cone, sphere, triangular based pyramid, square based pyramid.
Year 2	● To be able to identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line ● To be able to identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces ● To know and Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] ● To know how to compare and sort common 2-D and 3-D shapes and everyday objects.	● To discuss which shapes are solid (3D) and which ones are flat (2D). ● To fold a paper 2D shape to identify lines of symmetry. ● To use a mirror to identify a line of symmetry in a 2D shape. ● To count the number of sides and angles 2D shapes have. ● To count the number of edges, vertices and faces 3D shapes have. ● To discuss similarities and differences between shapes. ● To name the 2D and 3D shapes in the environment e.g. a can is the shape of a cylinder. ● To sort shapes/everyday object depending on categories (maybe a venn diagram or carroll diagram). ● To spot the 2D shapes on the surface of 3D shapes.	2D, 3D, line of symmetry, properties, sides, angles, 3D, edges, vertices, faces, circle, square, triangle, rectangle, hexagon, octagon, pentagon, cube, cylinder, cuboid, cone, sphere, triangular and squared based pyramid.
Year Group	**Knowledge**	**Skills**	**Vocabulary**
Position and Direction			
Reception	**Range 5 Spatial Awareness** ● Responds to and uses language of position and direction	**Range 5**	Behind, next to, in front, on top, below,

	● Predicts, moves and rotates objects to fit the space or create the shape they would like **Range 6 Spatial Awareness** ● Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints ● Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning) ● May enjoy making simple maps of familiar and imaginative environments, with landmarks	● Can follow an instruction involving positional language e.g. put the teddy behind the chair ● Chooses and moves the right shape to fill the space in construction play/puzzles/junk modelling etc. **Range 6** ● Can use language involving positional language in the form of an instruction to their peer or describing what they can see from different viewpoints ● Can predict and visualise the right shape to fill the space in construction play/puzzles/junk modelling etc. ● Can use and create a simple map of a familiar landmark/place	forwards, backwards.
Year 1	● To know how to describe position, direction and movement, including whole, half, quarter and three- quarter turns.	● To use vocab to describe position, direction and movement. ● To practically rotate themselves/objects a whole, half, quarter and three-quarter turns.	Position, direction, movement, whole turn, half turn, three-quarter turns, forwards, backwards, behind, in front, on top, below.
Year 2	● To know how to order and arrange combinations of mathematical objects in patterns and sequences ● To know how 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 three-quarter turns (clockwise and anti- clockwise).	● To create repeating patterns out of shapes/colours/items. ● To continue number sequences e.g. 3, 5, 7, 9 ___ ___ ___ ● To use vocab to describe position, direction and movement. ● To use a 'right angle checker' to find right angles. ● To practically rotate themselves/items (quarter, half, three-quarter turns). ● To practically rotate themselves clockwise or anticlockwise. ● To identify how far an item has rotated. ● To identify if an object has rotated clockwise or anticlockwise.	Pattern, sequence, position, direction, forwards, backwards, right angle, quarter turn, half a turn, three quarter turn, clockwise, anticlockwise.

Year Group	Knowledge	Skills	Vocabulary
Statistics			
Reception			
Year 1			
Year 2	● To know how to interpret and construct simple pictograms, tally charts, block diagrams and simple tables ● To know how to ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity	● To create pictograms/tally chart/block diagrams based on a set of data. ● To understand that tally charts are in blocks of 5 – to be able to count in the pattern of 5. To be able to count on from a number. ● To understand that pictures can represent a number in a chart, which is not always 1. To be able to count in pattern of 2, 3, 5, 10. To be able to count on from a number. ● To ask and answer questions about totalling and comparing categorical data.	Pictogram, tally chart, block digraphs, bar charts, table, compare, categories.