

Whole School Domain Progression

Number and place value; approximation and estimation / rounding (KS2)

Strand	Early Years outcomes	National Curriculum reference Year 1	National Curriculum reference Year 2	National Curriculum reference Year 3	National Curriculum reference Year 4	National Curriculum reference Year 5	National Curriculum reference Year 6	
N1 Counting (in multiples)	<u>Nursery Outcomes</u> Recite numbers past 5. Say one number name for each item from 1-5. Know that the last number reached when counting a set of objects tells you how many there is in total.	1N1a Count to and across 100, forward and backwards, beginning with 0 or 1, or from any given number	2N1 Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward		4N1 Count in multiples of 6, 7, 9, 25 and 1000	5N1 Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000		
	<u>Reception Outcomes (ELG)</u> Verbally count beyond 20, recognising the pattern of the counting system.	1N1b Count in multiples of twos, fives and tens		3N1b Count from 0 in multiples of 4, 8, 50 and 100				
N2 Read, write, order and compare numbers	<u>Nursery Outcomes</u> Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. Experiment with their own symbols and marks as well as numerals.	1N2a Count, read and write numbers to 100 in numerals	2N2a Read and write numbers to at least 100 in numerals and in words	3N2a Compare and order numbers up to 1000 Read and write numbers to 1000 in numerals and in words	4N2a Order and compare numbers beyond 1000	5N2 Read, write, order and compare numbers to at least 1 000 000	6N2 Read, write, order and compare numbers up to 10 000 000	
	<u>Reception Outcome</u> Link the number symbol (numeral) with its cardinal number value. (1-10)							
	<u>Nursery Outcomes</u> Compare quantities saying 'lots' 'more' and 'same'.	1N2b Given a number, identify one more and one less	2N2b Compare and order numbers from 0 up to 100; use <, > and = signs	3N2b Find 10 or 100 more or less than a given number	4N2b Find 1000 more or less than a given number			
	<u>Reception Outcomes (ELG)</u> Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.	1N2c Read and write numbers from 1 to 20 in numerals and words						
N3 Place value; Roman numerals			2N3 Recognise the place value of each digit in a two-digit number (tens, ones)	3N3 Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)	4N3a Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones)	5N3a Determine the value of each digit in numbers up to 1 000 000	6N3 Determine the value of each digit in numbers up to 10 000 000	
					4N3b Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the	5N3b Read Roman numerals to 1000 (M) and recognise years written in Roman numerals		

					concept of zero and place value		
N4 Identify, represent and estimate; rounding	<u>Nursery Outcomes</u> Show 'finger numbers' up to 5. Subitise up to 3 objects. Link numerals and amounts: for example, showing the right number of objects up to 5.	1N4 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	2N4 Identify, represent and estimate numbers using different representations, including the number line	3N4 Identify, represent and estimate numbers using different representations	4N4a Identify, represent and estimate numbers using different representations	5N4 Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	6N4 Round any whole number to a required degree of accuracy
	<u>Reception Outcome (ELG)</u> Link numeral with cardinal number value (1-10) Subitise (recognise quantities without counting) up to 5				4N4b Round any number to the nearest 10, 100 or 1000		
N5 Negative numbers					4N5 Count backwards through zero to include negative numbers	5N5 Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	6N5 Use negative numbers in context, and calculate intervals across zero
N6 Number problems			2N6 Use place value and number facts to solve problems	3N6 Solve number problems and practical problems involving 3N1–3N5	4N6 Solve number and practical problems that involve 4N1–4N5 and with increasingly large positive numbers	5N6 Solve number problems and practical problems that involve 5N1–5N5	6N6 Solve number problems and practical problems that involve 6N2–6N5

Addition, subtraction, multiplication and division (calculations)

Strand	Early Years outcomes	National Curriculum reference Year 1	National Curriculum reference Year 2	National Curriculum reference Year 3	National Curriculum reference Year 4	National Curriculum reference Year 5	National Curriculum reference Year 6
C1 Add / subtract mentally	<u>Reception Outcome (ELG)</u> Automatically recall number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.	1C1 Represent and use number bonds and related subtraction facts within 20	2C1a Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100	3C1 Add and subtract numbers mentally, including: - a three-digit number and ones - a three-digit number and tens - a three-digit number and hundreds		5C1 Add and subtract numbers mentally with increasingly large numbers	
			2C1b Add and subtract numbers mentally, including: - a two-digit number and ones - a two-digit number and tens - two two-digit numbers - adding three one-digit numbers				

C2 Add / subtract using written methods		1C2a Add and subtract one-digit and two-digit numbers to 20, including zero	2C2 Add and subtract numbers using concrete objects and pictorial representations, including: - a two-digit number and ones - a two-digit number and tens - two two-digit numbers - adding three one-digit numbers	3C2 Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction	4C2 Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	5C2 Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	
		1C2b Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs					
C3 Estimate, use inverses and check			2C3 To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems	3C3 Estimate the answer to a calculation and use inverse operations to check answers	4C3 Estimate and use inverse operations to check answers to a calculation	5C3 Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	6C3 Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy
C4 Add/subtract to solve problems		1C4 Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$	2C4 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	3C4 Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	4C4 Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	5C4 Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	6C4 Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
C5 Properties of number (multiples, factors, primes, squares and cubes)						5C5a Identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers	6C5 Identify common factors, common multiples and prime numbers
						5C5b Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	
						5C5c Establish whether a number up to 100 is prime and recall prime numbers up to 19	
						5C5d Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)	
C6			2C6 Recall and use multiplication and division facts for the 2, 5	3C6	4C6a	5C6a	6C6

Multiply / divide mentally			and 10 multiplication tables, including recognising odd and even numbers	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	Recall multiplication and division facts for multiplication tables up to 12×12	Multiply and divide numbers mentally drawing upon known facts	Perform mental calculations, including with mixed operations and large numbers
					4C6b Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers	5C6b Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	
					4C6c Recognise and use factor pairs and commutativity in mental calculations		
C7 Multiply / divide using written methods			2C7 Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs	3C7 Write and calculate mathematical statements for multiplication and division using the multiplication tables that children know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods	4C7 Multiply two-digit and three-digit numbers by a one-digit number using formal written layout	5C7a Multiply numbers up to 4 digits by a one-or two-digit number using a formal written method, including long multiplication for two-digit numbers	6C7a Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
						5C7b Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context	6C7b Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
							6C7c Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
C8 Solve problems (commutative, associative, distributive and all four operations)	Nursery Outcomes Solve some real-world mathematical problems with numbers up to 5, Reception Outcomes (ELG) Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed evenly.	1C8 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	2C8 Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	3C8 Solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects	4C8 Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	5C8a Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes	6C8 Solve problems involving addition, subtraction, multiplication and division

						5C8b Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	
						5C8c Solve problems involving multiplication and division including scaling by simple fractions and problems involving simple rates	
C9 Order of operations			2C9a Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot				6C9 Use their knowledge of the order of operations to carry out calculations involving the four operations
			2C9b Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot				

Fractions, decimals and percentages

Strand	Early Years outcomes	National Curriculum reference Year 1	National Curriculum reference Year 2	National Curriculum reference Year 3	National Curriculum reference Year 4	National Curriculum reference Year 5	National Curriculum reference Year 6
F1 Recognise, find, write, name and count fractions	Reception Outcomes Halving and sharing objects practically.	1F1a Recognise, find and name a half as one of two equal parts of an object, shape or quantity	2F1a 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	3F1a Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10	4F1 Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten		
		1F1b Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	2F1b Write simple fractions [e.g.: $\frac{1}{2}$ of 6 = 3]	3F1b Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators			
				3F1c Recognise and use			

				fractions as numbers: unit fractions and non-unit fractions with small denominators			
F2 Equivalent fractions			2F2 Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$	3F2 Recognise and show, using diagrams, equivalent fractions with small denominators	4F2 Recognise and show, using diagrams, families of common equivalent fractions	5F2a Recognise mixed numbers and improper fractions and convert from one form to the other; write mathematical statements >1 as a mixed number [e.g.: $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} =$ $1 \frac{1}{5}$]	6F2 Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
						5F2b Identify name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	
F3 Comparin g and ordering fractions				3F3 Compare and order unit fractions and fractions with the same denominators		5F3 Compare and order fractions whose denominators are all multiples of the same number	6F3 Compare and order fractions, including fractions >1
F4 Add / subtract fractions				3F4 Add and subtract fractions with the same denominator within one whole [e.g.: $\frac{5}{7} +$ $\frac{1}{7} = \frac{6}{7}$]	4F4 Add and subtract fractions with the same denominator	5F4 Add and subtract fractions with the same denominator and denominators that are multiples of the same number	6F4 Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
F5 Multiply / divide fractions						5F5 Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	6F5a Multiply simple pairs of proper fractions, writing the answer in its simplest form [e.g.: $\frac{1}{4} \times$ $\frac{1}{2} = \frac{1}{8}$]
							6F5b Divide proper fractions by whole numbers [e.g.: $\frac{1}{3} \div 2$ $= \frac{1}{6}$]
F6 Fractions / decimals equivalen ce					4F6a Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$	5F6a Read and write decimal numbers as fractions [e.g.: $0.71 = \frac{71}{100}$]	6F6 Associate a fraction with division to calculate decimal fraction equivalents (e.g.: 0.375) for a simple fraction [e.g.: $\frac{3}{8}$]
					4F6b Recognise and write decimal equivalents of any number of tenths or hundredths	5F6b Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	
F7					4F7 Round decimals with one decimal place to the nearest whole number	5F7 Round decimals with two decimal places to the nearest	

Rounding decimals [KS2]						whole number and to one decimal place	
F8 Compare and order decimals					4F8 Compare numbers with the same number of decimal places up to two decimal places	5F8 Read, write, order and compare numbers with up to three decimal places	
F9 Multiply / divide decimals					4F9 Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths		6F9a Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places
							6F9b Multiply one-digit numbers with up to two decimal places by whole numbers
							6F9c Use written division methods in cases where the answer has up to two decimal places
F10 Solve problems with fractions and decimals				3F10 Solve problems that involve 3F1–3F4	4F10a Solve problems involving increasingly harder fractions to calculate quantities and fractions to divide quantities, including non-unit fractions where the answer is a whole number	5F10 Solve problems involving numbers up to three decimal places	6F10 Solve problems which require answers to be rounded to specified degrees of accuracy
					4F10b Solve simple measure and money problems involving fractions and decimals to two decimal places		
F11 Fractions / decimal / percentage equivalence						5F11 Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred'; write percentages as a fraction with denominator hundred, and as a decimal	6F11 Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts
F12 Solve problems with percentages						5F12 Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25	

Ratio and proportion

Strand	Early Years outcomes	National Curriculum reference Year 1	National Curriculum reference Year 2	National Curriculum reference Year 3	National Curriculum reference Year 4	National Curriculum reference Year 5	National Curriculum reference Year 6
R1 Relative sizes, similarity							6R1 Solve problems involving the relative sizes of two quantities, where missing values can be found by using integer multiplication and division facts
R2 Use of percentages for comparison							6R2 Solve problems involving the calculation of percentages [e.g.: of measures such as 15% of 360] and the use of percentages for comparison
R3 Scale factors							6R3 Solve problem involving similar shapes where the scale factor is known or can be found
R4 Unequal sharing and grouping							6R4 Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples

Algebra

Strand	Early Years outcomes	National Curriculum reference Year 1	National Curriculum reference Year 2	National Curriculum reference Year 3	National Curriculum reference Year 4	National Curriculum reference Year 5	National Curriculum reference Year 6
A1 Missing number problems expressed in algebra							6A1 Express missing number problems algebraically
A2 Simple formulae expressed in words							6A2 Use simple formulae
A3 Generate and describe linear number sequences							6A3 Generate and describe linear number sequences
A4 Number sentences involving							6A4 Find pairs of numbers that satisfy an equation with two unknowns

two unknowns							
A5 Enumerate all possibilities of combinations of							6A5 Enumerate possibilities of combinations of two variables

Measurement

Strand	Early Years outcomes	National Curriculum reference Year 1	National Curriculum reference Year 2	National Curriculum reference Year 3	National Curriculum reference Year 4	National Curriculum reference Year 5	National Curriculum reference Year 6
M1 Compare, describe and order measures	Reception Outcomes Make comparisons between 2 objects relating to their size, length, weight and capacity. Reception Outcomes Compare length, weight and capacity.	1M1 Compare, describe and solve practical problems for: - 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]	2M1 Compare and order lengths, mass, volume/ capacity and record the results using >, < and =	3M1a Compare lengths(m/cm/mm)	4M1 Compare different measures, including money in pounds and pence		
				3M1b Compare mass (kg/g)			
				3M1c Compare volume / capacity (l/ml)			
M2 Estimate, measure and read scales		1M2 Measure and begin to record the following: - lengths and heights - mass/weight - capacity and volume - time (hours, minutes, seconds)	2M2 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	3M2a Measure lengths (m/cm/mm)	4M2 Estimate different measures, including money in pounds and pence		
				3M2b Measure mass (kg/g)			
				3M2c Measure volume / capacity (l/ml)			
M3 Money	Reception Outcome To use everyday language related to money.	1M3 Recognise and know the value of different denominations of coins and notes	2M3a Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value				
			2M3b				

			Find different combinations of coins that equal the same amounts of money					
M4 Telling time, ordering time, duration and units of time	Reception Outcome To use everyday language related to time.	1M4a Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times	2M4a 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	3M4a Tell and write the time from an analogue clock; 12-hour clocks	4M4a Read, write and convert time between analogue and digital 12-hour clocks			
		1M4b Sequence events in chronological order using language [e.g.: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]	2M4b Compare and sequence intervals of time	3M4b Tell and write the time from an analogue clock; 24-hour clocks	4M4b Read, write and convert time between analogue and digital 24-hour clocks			
		1M4c Recognise and use language relating to dates, including days of the week, weeks, months and years	2M4c Know the number of minutes in an hour and the number of hours in a day	3M4c Tell and write the time from an analogue clock, including using Roman numerals from I to XII	4M4c Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	5M4 Solve problems involving converting between units of time		
				3M4d Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock/a.m./p.m., morning, afternoon, noon and midnight				
				3M4e Know the number of seconds in a minute and the number of days in each month, year and leap year				
				3M4f Compare durations of events, [e.g.: to calculate the time taken by particular events or tasks]				
M5 Convert between metric units					4M5 Convert between different units of measurement [e.g.: kilometre to metre; hour to minute]	5M5 Convert between different units of metric measure [e.g.: kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre]	6M5 Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation of up to three decimal places	
M6						5M6 Understand and use approximate equivalences between metric units and	6M6 Convert between miles and kilometres	

Convert metric/imperial						common imperial units such as inches, pounds and pints	
M7 Perimeter, area				3M7 Measure the perimeter of simple 2-D shapes	4M7a Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	5M7a Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	6M7a Recognise that shapes with the same areas can have different perimeters and vice versa
					4M7b Find the area of rectilinear shapes by counting squares	5M7b Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm ²) and square metres (m ²) and estimate the area of irregular shapes	6M7b Calculate the area of parallelograms and triangles
							6M7c Recognise when it is possible to use the formulae for the area of shapes
M8 Volume						5M8 Estimate volume [e.g.: using 1cm ³ blocks to build cuboids (including cubes)] and capacity [e.g.: using water]	6M8a Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm ³) and cubic metres (m ³), and extending to other units [e.g.: mm ³ and km ³]
							6M8b Recognise when it is possible to use the formulae for the volume of shapes
M9 Solve problems (a: money; b: length; c: mass / weight; d: capacity / volume)			2M9 Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	3M9a Add and subtract amounts of money to give change, using both £ and p in practical contexts	4M9 Calculate different measures, including money in pounds and pence	5M9a Use all four operations to solve problems involving measure [money] using decimal notation, including scaling	6M9 Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
				3M9b Add and subtract lengths (m/cm/mm)		5M9b Use all four operations to solve problems involving measure [e.g.: length] using decimal notation, including scaling	
				3M9c Add and subtract mass (kg/g)		5M9c Use all four operations to solve problems involving measure [e.g.: mass] using decimal notation, including scaling	

				3M9d Add and subtract volume / capacity (l/ml)		5M9d Use all four operations to solve problems involving measure [e.g.: volume] using decimal notation, including scaling	
Geometry: properties of shape							
Strand	Early Years outcomes	National Curriculum reference Year 1	National Curriculum reference Year 2	National Curriculum reference Year 3	National Curriculum reference Year 4	National Curriculum reference Year 5	National Curriculum reference Year 6
G1 Recognise and name common shapes	Beginning to talk about the shapes of everyday objects, e.g. 'round' and 'tall'. Shows interest in shape by sustained construction activity or by talking about shapes or arrangements. Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat'.	1G1a Recognise and name common 2-D shapes [e.g.: rectangles (including squares), circles and triangles]	2G1a Compare and sort common 2-D shapes and everyday objects				
		1G1b Recognise and name common 3-D shapes [e.g.: cuboids (including cubes), pyramids and spheres]	2G1b Compare and sort common 3-D shapes and everyday objects				
G2 Describe properties and classify shapes			2G2a Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line	3G2 Identify horizontal, vertical lines and pairs of perpendicular and parallel lines	4G2a Compare and classify geometric shapes, including quadrilaterals and triangles based on their properties and sizes	5G2a Use the properties of rectangles to deduce related facts and find missing lengths and angles	6G2a Compare and classify geometric shapes based on their properties and sizes
			2G2b Identify and describe the properties of 3-D shapes including the number of edges, vertices and faces		4G2b Identify lines of symmetry in 2-D shapes presented in different orientations	5G2b Distinguish between regular and irregular polygons based on reasoning about equal sides and angles	6G2b Describe simple 3-D shapes
					4G2c Complete a simple symmetric figure with respect to a specific line of symmetry		
G3 Draw and make shapes and relate 2-D to 3-D shapes (including nets)			2G3 Identify 2-D shapes on the surface of 3-D shapes, [e.g.: a circle on a cylinder and a triangle on a pyramid]	3G3a Draw 2-D shapes			6G3a Draw 2-D shapes using given dimensions and angles
				3G3b Make 3-D shapes using modelling materials; recognise 3-D shapes in		5G3b Identify 3-D shapes including cubes and other cuboids, from 2-D representations	6G3b Recognise and build simple 3D shapes, including making nets

				different orientations and describe them			
G4 Angles – measuring and properties				3G4a Recognise that angles are a property of shape or a description of a turn	4G4 Identify acute and obtuse angles and compare and order angles up to two right angles by size	5G4a Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	6G4a Find unknown angles in any triangles, quadrilaterals and regular polygons
				3G4b Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle		5G4b Identify: - angles at a point and one whole turn (total 360°) - angles at a point on a straight line and ½ a turn (total 180°) - other multiples of 90°	6G4b Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
						5G4c Draw given angles and measure them in degrees (°)	
G5 Circles							6G5 Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius

Geometry: position and direction

Strand	Early Years outcomes	National Curriculum reference Year 1	National Curriculum reference Year 2	National Curriculum reference Year 3	National Curriculum reference Year 4	National Curriculum reference Year 5	National Curriculum reference Year 6
P1 Patterns	Talk about patterns in the environment. For example, stripes on clothes. Use informal language like 'pointy', 'spotty'. Continue, copy and create repeating patterns.		2P1 Order and arrange combinations of mathematical objects in patterns and sequences				
P2 Describe position, direction and movement	Understand positional language with focus on under, over, behind, in front, forwards, backwards.	1P2 Describe position, directions and movement, including half, quarter and three-quarter turns	2P2 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 (clock-wise and anti-clockwise)		4P2 Describe movements between positions as translations of a given unit to the left/right and up/down	5P2 Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed	6P2 Draw and translate simple shapes on the co-ordinate plane, and reflect them in the axes

P3 Coordinates					4P3a Describe positions on a 2-D grid as co-ordinates in the first quadrant		6P3 Describe positions on the full co-ordinate grid (all four quadrants)
					4P3b Plot specified points and draw sides to complete a given polygon		
Statistics							
Strand	Early Years outcomes	National Curriculum reference Year 1	National Curriculum reference Year 2	National Curriculum reference Year 3	National Curriculum reference Year 4	National Curriculum reference Year 5	National Curriculum reference Year 6
S1 Interpret and represent data			2S1 Interpret and construct simple pictograms, tally charts, block diagrams and simple tables	3S1 Interpret and present data using bar charts, pictograms and tables	4S1 Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	5S1 Complete, read and interpret information in tables, including timetables	6S1 Interpret and construct pie charts and line graphs and use these to solve problems
S2 Solve problems involving data			2S2a Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity	3S2 Solve one-step and two step questions [e.g.: 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts, pictograms and tables	4S2 Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	5S2 Solve comparison, sum and difference problems using information presented in a line graph	
			2S2b Ask and answer questions about totalling and comparing categorical data				
S3 Mean average							6S3 Calculate and interpret the mean as an average