



Progression document Key:

Highlighted in yellow are targets for Recall facts for that given year group.



Number and Place Value

National Curriculum Progression Document

NUMBER: Number and place value

Strand	EYFS	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr6 extn
Counting	<p>40-60 Counts up to three or four objects by saying one number name for each item. Counts actions or objects which cannot be moved.</p> <p>Counts objects to 10, and beginning to count beyond 10.</p> <p>Counts out up to six objects from a larger group.</p> <p>Counts an irregular arrangement of up to ten objects.</p> <p>Finds the total number of items in two groups by counting all of them</p> <p><u>ELG- Number</u></p> <p>Children count reliably with numbers from one to 20, place them in order. They solve problems, including</p>	<p>count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</p> <p>count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens</p>	<p>count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward</p>	<p>count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number</p>	<p>count in multiples of 6, 7, 9, 25 and 1000</p> <p>find 1000 more or less than a given number</p> <p>count backwards through zero to include negative numbers</p>	<p>count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000</p> <p>count forwards and backwards with positive and negative whole numbers, including through zero</p>		

	doubling, halving and sharing. <i>Exceeding:</i> <i>Children estimate a number of objects and check quantities by counting up to 20.</i>							
Read and write numbers	40-60 Recognise some numerals of personal significance. Recognises numerals 1 to 5. Selects the correct numeral to represent 1 to 5, then 1 to 10 objects. <u>ELG Number</u> Children count reliably with numbers from one to 20, place them in order	read and write numbers from 1 to 20 in numerals and words	read and write numbers to at least 100 in numerals and in words	read and write numbers up to a 1000 in numerals and in words	read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value	read and write numbers to at least 1 000 000 read Roman numerals to 1000 (M) and recognise years written in Roman numerals	read and write numbers up to 10 000 000	NC7 <i>Extend understanding of the number system to read and write larger numbers (billions, trillions etc)</i>
Comparing and ordering numbers	40-60 Uses the language of 'more' and 'fewer' to compare two sets of objects. 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	given a number, identify one more and one less use the language of:	compare and order numbers from 0 up to 100; use <, > and = signs	compare and order numbers up to 1000	order and compare numbers beyond 1000	order and compare numbers to at least 1 000 000 and determine the value of each digit	order and compare numbers up to 10 000 000 and determine the value	NC7 <i>extend understanding of the number system to order</i>

	<p>objects</p> <p><u>ELG- Number</u></p> <p>Children say which number is one more or one less than a given number.</p>	<p>equal to, more than, less than (fewer), most, least</p>				<p>interpret negative numbers in context</p>	<p>of each digit</p> <p>use negative numbers in context, and calculate intervals across zero</p>	<p><i>and compare larger numbers (billions, trillions etc)</i></p> <p><i>NC1 extend the range of symbols used to compare numbers to include, =, ≠, ≥, ≤, <, ></i></p>
<p>Place value</p> <p><i>(see also fractions, decimals and</i></p>			<p>recognise the place value of each digit in a two-digit number (tens, ones)</p>	<p>recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</p>	<p>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</p>			<p><i>See fractions</i></p>

percentages section)								
Identify, represent, estimate and round	<p><u>40-60</u> Estimates how many objects they can see and checks by counting them.</p> <p>Records, using marks that they can interpret and explain.</p> <p>ELG <u>Number Exceeding:</u> <i>Children estimate a number of objects and check quantities by counting up to 20</i></p>	identify and represent numbers using objects and pictorial representations including the number line	identify, represent and estimate numbers using different representations, including the number line	identify, represent and estimate numbers using different representations	identify, represent and estimate numbers using different representations	round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	round any whole number to a required degree of accuracy	
Solve problems	<p><u>40-60</u> Begins to identify own mathematical problems based on own interests and fascinations.</p> <p>ELG <u>Number</u> They solve problems, including doubling, halving and sharing.</p> <p><u>Exceeding:</u></p>		use place value and number facts to solve problems	solve number problems and practical problems involving these ideas	solve number and practical problems that involve all of the above and with increasingly large positive numbers	solve number problems and practical problems that involve all of the above	solve number and practical problems that involve all of the above	

	<i>They solve practical problems that involve combining groups of 2, 5 or 10, or sharing into equal groups.</i>							
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Number: Addition, Subtraction, Multiplication and Division

National Curriculum Progression Document

NUMBER: Addition, Subtraction, Multiplication and Division

Strand	EYFS	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr6 extn
Addition and Subtraction	<p><u>40-60</u> In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.</p>	<p>read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p>	<p>add and subtract numbers using concrete objects, pictorial representations, and mentally, including: -a two-digit number and ones -a two-digit number and tens -two two-digit numbers -adding three one-digit numbers</p>	<p>add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens ; a three-digit number and hundreds</p>	<p>add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</p>	<p>add and subtract numbers mentally with increasingly large numbers</p>	<p>perform mental calculations, including with mixed operations and large numbers</p>	
	<p><u>ELG</u> <u>Number</u> Using quantities and objects, they add and subtract two single-digit numbers and count on or back</p>	<p>represent and use number bonds and related subtraction facts within 20</p> <p>add and subtract one-digit and two-digit numbers to 20, including</p>	<p>show that addition of two</p>	<p>add and subtract numbers with up to three digits, using formal written methods of columnar addition and</p>	<p>add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)</p>			

	to find the answer.	zero	numbers can be done in any order (commutative) and subtraction of one number from another cannot	subtraction				
Multiplication and division	<u>ELG Number</u> They solve problems, including doubling, halving and sharing.		calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods	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 multiply two-digit and three-digit numbers by a one-digit number using formal written layout	multiply and divide numbers mentally drawing upon known facts multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long	perform mental calculations, including with mixed operations and large numbers multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication divide numbers up to 4 digits by	<i>NC2 begin to calculate with negative whole numbers in context</i> <i>NC3 extend knowledge of the order of operations to include powers</i>

						<p>multiplication for two-digit numbers</p> <p>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</p>	<p>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</p> <p>use their knowledge of the order of operations to carry out calculations involving the four operations</p>	
Derive and recall $+-x\div$			recall and use addition and subtraction facts to 20 fluently, and derive and use	recall and use multiplication and division facts for the 3, 4 and 8 multiplication	recall multiplication and division facts for multiplication tables up to 12			

			related facts up to 100 recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers	tables	× 12			
Prime numbers and factors					recognise and use factor pairs and commutativity in mental calculations	identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	identify common factors, common multiples and prime numbers	<i>NT1 explore and understand highest common factor and lowest common multiples through informal method such as listing all common factors or multiples</i>

						<p>establish whether a number up to 100 is prime and recall prime numbers up to 19</p> <p>recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³)</p>		<p><i>NT2</i> <i>explore higher positive whole number powers through different contexts</i></p>
Solving problems		<p>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$</p>	<p>solve problems with addition and subtraction: --using concrete objects and pictorial representations, including those involving numbers, quantities and measures</p>	<p>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</p>	<p>solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</p>	<p>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p>	<p>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p>	

		<p>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</p>	<p>--applying their increasing knowledge of mental and written methods</p> <p>solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts</p>	<p>solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects</p>	<p>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</p>	<p>solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes</p> <p>solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</p> <p><i>Also see</i></p>	<p>solve problems involving addition, subtraction, multiplication and division</p>	
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						<i>RATIO AND PROPORTION</i>		
Checking			recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	estimate the answer to a calculation and use inverse operations to check answers	estimate and use inverse operations to check answers to a calculation	use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	



Number: Fractions including decimals and percentages

National Curriculum Progression Document

NUMBER: Fractions (including decimals and percentages)

Strand	EYFS	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr6 extn
Recognise and find fractions		<p>recognise, find and name a half as one of two equal parts of an object, shape or quantity</p> <p>recognise, find and name a quarter as one of four equal parts of an object, shape or quantity</p>	<p>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</p> <p>write simple fractions e.g. $\frac{1}{2}$ of 6 = 3</p>	<p>recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</p> <p>recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</p>		<p>recognise mixed numbers and improper fractions and convert from one form to the other</p> <p>recognise the per cent symbol (%) and understand that per cent relates to “number of parts per hundred”</p>		
Count, compare and order Place value and				<p>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</p>	<p>count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten</p>	<p>compare and order fractions whose denominators are all multiples of the same number</p> <p>read and write decimal</p>	<p>compare and order fractions, including fractions >1</p> <p>identify the value of each digit to three</p>	<p><i>NC9 begin to understand the difference between rounding to a specified number of</i></p>

rounding				compare and order unit fractions, and fractions with the same denominator	<p>compare numbers with the same number of decimal places up to two decimal places</p> <p>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</p> <p>round decimals with one decimal place to the nearest whole number</p>	<p>numbers as fractions (e.g. $0.71 = 71/100$)</p> <p>read, write, order and compare numbers with up to three decimal places</p> <p>round decimals with two decimal places to the nearest whole number and to one decimal place</p>	decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers are up to three decimal places	<i>decimal places and a specified number of significant figures</i>
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Equivalence			recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$	recognise and show, using diagrams, equivalent fractions with small denominators	recognise and show, using diagrams, families of common equivalent fractions recognise and write decimal equivalents of any number of tenths or hundredths recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$	identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents write percentages as a fraction with denominator 100, and as a decimal	use common factors to simplify fractions; use common multiples to express fractions in the same denomination recall and use equivalences between simple fractions, decimals and percentages, including in different contexts associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$)	<i>N5 compare, order and convert between fractions and decimals</i>
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Calculating				<p>add and subtract fractions with the same denominator within one whole (e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$)</p>	<p>add and subtract fractions with the same denominator</p>	<p>add and subtract fractions with the same denominator and denominators that are multiples of the same number</p> <p>write mathematical statements >1 as a mixed number (e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1 \frac{1}{5}$)</p> <p>multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</p>	<p>add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions</p> <p>multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$)</p> <p>divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$)</p> <p>multiply one-digit numbers with up to two decimal places by whole numbers</p>	<p><i>NC2 begin to calculate with number sentences involving a mixture of both decimals and fractions e.g. $\frac{3}{5} + 0.1 =$</i></p>
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							use written division methods in cases where the answer has up to two decimal places	
Solve problems				solve problems that involve all of the above	<p>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</p> <p>solve simple measure and money problems involving fractions and decimals to two decimal places</p>	<p>solve problems involving number up to three decimal places</p> <p>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</p>	solve problems which require answers to be rounded to specified degrees of accuracy	



Ratio and Proportion

National Curriculum Progression Document

RATIO AND PROPORTION

Strand	EYFS	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr6 extn
						<p>solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates</p> <p><i>(taken from the multiplication and division domain)</i></p>	<p>solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts</p> <p>solve problems involving the calculation of percentages (e.g. of measures) such as 15% of 360 and the use of percentages</p>	<p><i>RP3 begin to solve problems including percentage increase and decrease using informal methods</i></p> <p><i>NC6/RP4 develop an understanding of multiplicative relationships through problem solving in different</i></p>

							<p>for comparison</p> <p>solve problems involving similar shapes where the scale factor is known or can be found</p> <p>solve problems involving unequal sharing and grouping using knowledge of fractions and multiples</p>	<p><i>contexts</i></p> <p><i>Solve missing number problems such as $3 \times \square = 10$ using fraction notation or use of inverses</i></p>
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Algebra

National Curriculum Progression Document

ALGEBRA

Strand	EYFS	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr6 extn
							<p>express missing number problems algebraically</p> <p>use simple formulae</p> <p>generate and describe linear number sequences</p> <p>find pairs of numbers that satisfy an equation with two unknowns</p>	<p><i>AU3</i> Extend missing number problems to include an increasing number of operations and brackets using informal methods</p> <p><i>AU1</i> Use simple formulae expressed in words and symbols</p> <p><i>AE7</i> Extend the range of opportunities to generate and explore sequences through a variety of practical and visual contexts and develop the understanding that these can be described as generalised statement</p> <p>Extend finding pairs of numbers that satisfy number sentences involving two unknowns to include</p>

							Enumerate possibilities of combinations of two variables	<i>negative, fractional and decimal numbers</i>
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Measurement

National Curriculum Progression Document

MEASUREMENT

Strand	EYFS	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr6 extn
<p>Estimate, measure, weigh, compare and convert units</p>	<p>40-60 Orders two or three items by length or height. Orders two items by weight or capacity. <u>ELG</u> Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. <u>Exceeding:</u> <i>Children estimate, measure,</i></p>	<p>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) measure and begin to record the following: --lengths and</p>	<p>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 =</p>	<p>measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</p>	<p>convert between different units of measure (e.g. kilometre to metre; hour to minute) estimate, compare and calculate different measures, including money in pounds and pence</p>	<p>convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; millimetre; gram and kilogram; litre and millilitre) understand and use equivalences between metric units and common imperial units such as inches, pounds and pints</p>	<p>solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate 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 to up</p>	<p><i>RP1/2 solve measures problems involving scaling and mixing in given ratios</i> <i>NC7 explore prefixes in metric measures such as nano, milli, centi, deci, kilo, mega and giga</i></p>

	<i>weigh and compare and order objects</i>	heights --mass/weight --capacity and volume --time (hours, minutes, seconds)				use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation, including scaling	to three decimal places convert between miles and kilometres	
Perimeter, area, volume and capacity	<u>ELG- SSM</u> Children use everyday language to talk about capacity, they are able to compare quantities and solve problems.			measure the perimeter of simple 2-D shapes	measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres find the area of rectilinear shapes by counting squares	measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm ²) and	recognise that shapes with the same areas can have different perimeters and vice versa calculate the area of parallelograms and triangles recognise when it is possible to use formulae for area and volume of shapes	<i>GM1 solve problems involving area of composite shapes involving squares, rectangles, triangles and parallelograms</i>

						<p>square metres (m²) and estimate the area of irregular shapes</p> <p>estimate volume (e.g. using 1cm³ blocks to build cuboids (including cubes)) and capacity (e.g. using water)</p>	<p>calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units (e.g. mm³ and km³)</p>	
<p>Money</p>	<p>40-60 Children use everyday language to talk about money ELG- to compare quantities and objects and to solve problems.</p>	<p>recognise and know the value of different denominations of coins and notes</p>	<p>recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value</p> <p>find different combinations of coins that equal the same amounts of money</p> <p>solve simple</p>	<p>add and subtract amounts of money to give change, using both £ and p in practical contexts</p>				

			problems in a practical context involving addition and subtraction of money of the same unit, including giving change					
Time	<p>40-60 Children use everyday language to talk about time.</p> <p>Orders and sequences familiar events.</p> <p>Measures short periods of time in simple ways.</p>	<p>sequence events in chronological order using language (e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening)</p> <p>recognise and use language relating to dates, including days of the week, weeks, months and years</p> <p>tell the time to the hour and half past the</p>	<p>compare and sequence intervals of time</p> <p>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</p> <p>know the number of minutes in an</p>	<p>tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks</p> <p>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</p>	<p>read, write and convert time between analogue and digital 12 and 24-hour clocks</p> <p>solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days</p>	<p>solve problems involving converting between units of time</p>		

		hour and draw the hands on a clock face to show these times	hour and the number of hours in a day	know the number of seconds in a minute and the number of days in each month, year and leap year compare durations of events (for example to calculate the time taken by particular events or tasks)				
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GEOMETRY:

Properties of shapes; position and direction

National Curriculum Progression Document

GEOMETRY: Properties of shapes; position and direction

Strand	EYFS	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr6 extn
Properties of shapes	<p>40-60</p> <ul style="list-style-type: none"> Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes. Selects a particular named shape. <p>Uses familiar objects and common shapes to create and recreate patterns and build models.</p> <p>ELG They recognise, create and describe patterns</p> <p>They explore characteristics of everyday objects</p>	<p>recognise and name common 2-D and 3-D shapes, including: --2-D shapes (e.g. rectangles (including squares), circles and triangles) --3-D shapes (e.g. cuboids (including cubes), pyramids and spheres).</p>	<p>identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line</p> <p>identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces</p> <p>identify 2-D shapes on the surface of 3-D shapes, (for example a circle on a cylinder and a triangle on a pyramid)</p>	<p>draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</p> <p>recognise angles as a property of shape or a description of a turn</p> <p>identify right angles, recognise that two right angles make a half-turn, three make three quarters of a</p>	<p>compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</p> <p>identify acute and obtuse angles and compare and order angles up to two right angles by size</p> <p>identify lines of symmetry in 2-D shapes presented in different orientations</p> <p>complete a</p>	<p>identify 3-D shapes, including cubes and other cuboids, from 2-D representations</p> <p>know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles</p> <p>draw given angles, and measure them in degrees (°)</p> <p>identify: --angles at a point and one whole turn (total 360°) --angles at a point on a straight line</p>	<p>draw 2-D shapes using given dimensions and angles</p> <p>recognise, describe and build simple 3-D shapes, including making nets</p> <p>compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons</p> <p>illustrate and name parts of</p>	<p><i>GM6 explore how to construct congruent triangles</i></p> <p><i>GM4 extend the use of conventional terms and notations to illustrate more complex geometrical properties</i></p> <p><i>GM5 extend knowledge of names of parts of circles to include arc, sector and chord</i></p>

	and shapes and use mathematical language to describe them.		compare and sort common 2-D and 3-D shapes and everyday objects	turn and four a complete turn; identify whether angles are greater than or less than a right angle identify horizontal and vertical lines and pairs of perpendicular and parallel lines	simple symmetric figure with respect to a specific line of symmetry	and $\frac{1}{2}$ a turn (total 180°) --other multiples of 90° use the properties of rectangles to deduce related facts and find missing lengths and angles distinguish between regular and irregular polygons based on reasoning about equal sides and angles	circles, including radius, diameter and circumference and know that the diameter is twice the radius recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles	
Position, direction, motion	<u>40-60</u> Can describe their relative position such as 'behind' or 'next to'. <u>Exceeding:</u> Children talk about properties, position and time	describe position, direction and movement, including whole, half, quarter and three-quarter turns	order and arrange combinations of mathematical objects in patterns use mathematical vocabulary to describe position,		describe positions on a 2-D grid as coordinates in the first quadrant describe movements between positions as translations of a given unit	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	describe positions on the full coordinate grid (all four quadrants) draw and translate simple shapes on the coordinate plane, and	<i>GM8 extend understanding of transformations to include rotation and combined transformations</i>

			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 the left/right and up/down plot specified points and draw sides to complete a given polygon		reflect them in the axes	
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Statistics

National Curriculum Progression Document

STATISTICS

Strand	ELG	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr6 extn
Statistics			<p>interpret and construct simple pictograms, tally charts, block diagrams and simple tables</p> <p>ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity</p> <p>ask and answer questions about totalling and comparing categorical data</p>	<p>interpret and present data using bar charts, pictograms and tables</p> <p>solve one-step and two-step questions (e.g. 'How many more?' and 'How many fewer?') using information presented in scaled bar charts and pictograms and tables</p>	<p>interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</p> <p>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs</p>	<p>solve comparison, sum and difference problems using information presented in a line graph</p> <p>complete, read and interpret information in tables, including timetables</p>	<p>interpret and construct pie charts and line graphs and use these to solve problems</p> <p>calculate and interpret the mean as an average</p>	<p><i>S3 extend understanding of the handling data cycle to include impact of sample size, possible sources of bias and effective data collection in simple contexts</i></p> <p><i>S1 explore how data can be mis-represented</i></p>



Early Years Foundation Stage:

30-50, 40-60, Early Learning Goals, Exceeding

Statements

Mathematics: Numbers

30-50	40-60	Early Learning Goal	Exceeding
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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. 	<p>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</p>	<p>Children estimate a number of objects and check quantities by counting up to 20. They solve practical problems that involve combining groups of 2, 5 or 10, or sharing into equal groups.</p>

<p>the same number.</p> <ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<p>and sharing.</p>	
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Mathematics: Shape, Space and Measure

30-50	40-60	Early Learning Goal	Exceeding
<ul style="list-style-type: none"> • 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'. 	<ul style="list-style-type: none"> • 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. 	<p>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.</p>	<p>Children estimate, measure, weigh and compare and order objects and talk about properties, position and time.</p>

