

Maths Progression of Skills

NUMBER – Number and Place Value

Early Years Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 I can count in multiples I can read, write, order I can read, write, order Counting Counting Counting Counting I can count verbally I can count to and I can count in steps of I can count from 0 in of 6. 7. 9. 25 and 1000 and compare numbers and compare numbers beyond 5. across 100, forwards 2, 3, and 5 from 0, and multiples of 4, 8, 50 I can find 1000 more or to at least 1.000.000 up to 10.000.000 and I can count verbally and backwards, in tens from any and 100 less than a given and determine the determine the value of number, forward or I can find 10 or 100 beyond 10. beginning with 0 or 1, number value of each digit each digit I can count verbally or from any given backward more or less than a I can count backwards I can count forwards or I can round any whole beyond 20. number I can read and write given number through zero to include backwards in steps of number to a required I can accurately count I can count, read and numbers to at least I can compare and negative numbers powers of 10 for any degree of accuracy items to 5 with one-towrite numbers to 100 100 in numerals and in order numbers up to I can recognise the given number up to I can use negative one correspondence. in numerals: count in 1 000 place value of each 1,000,000 numbers in context. words I can accurately count multiples of twos, fives and calculate intervals I can identify, I can identify, digit in a four-digit I can interpret negative across 0 items to 10 with oneand tens represent and estimate represent and estimate number (thousands, numbers in context, I can solve number and to-one Comparing numbers using numbers using hundreds, count forwards and I can use the language different different backwards with practical problems that correspondence. tens, and ones) I can correctly count of: equal to, more representations, representations I can order and positive and negative involve all of the above including the number sounds and actions, as than, less than (fewer), I can read and write compare numbers whole numbers, well as objects. most, least line numbers up to 1 000 in beyond 1000 including through 0 I can show a secure Given a number. Place Value numerals and in words I can identify, I can round any understanding of the Place Value represent and estimate identify one more and I can recognise the number up to 'cardinal principle' 1.000.000 to the one less place value of each I can recognise the numbers using (knows the last number Representation digit in a two-digit place value of each different nearest 10, 100, 1,000, reached when counting 10.000 and 100.000 I can identify and number (tens, ones) digit in a three-digit representations I can solve number tells you the total). represent numbers I can compare and number (hundreds, I can subitise up to 3. using objects and order numbers from 0 tens, ones) problems and practical

I can subitise up to 5. I can show 'finger numbers' up to 5. I can link numeral to amounts up to 5. I can link numeral to amounts up to 10. Comparing I can use 'more than' and 'fewer than' to compare quantities. I can compare quantities up to 10 and say whether one is greater than, less than or the same as the other. I can understand 'one more than/one less than'.	pictorial representations including the number line I can read and write numbers from 1 to 20 in numerals and words I can read and write numbers to 100 in numerals and words	up to 100; use <, > and = signs I can use place value and number facts to solve problems		I can round any number to the nearest 10, 100 or 1000 I can solve number and practical problems that involve all of the above and with increasingly large positive numbers I can 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.	problems that involve all of the above I can read Roman numerals to 1,000 (M) and recognise years written in Roman numerals	
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NUMBER – Addition, Subtraction, Multiplication and Division							
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Composition of Number I can solve real-life maths problems with numbers up to 5. I know the total of a larger set by subitising	Addition & Subtraction I can read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs	Addition & Subtraction I can recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100	I can add and subtract numbers mentally, including: a three-digit number and 1s a three-digit number and 10s	I can add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	Add/subtract whole numbers with more than 4 digits (column method) Inverse operations (addition and subtraction)	
the groups within it and immediately combining them to find the total (conceptual subitising). I can demonstrate an understanding of the	I can represent and use number bonds and related subtraction facts within 20 I can add and subtract one-digit and two-digit	I can show that addition of two numbers can be done in any order (commutative) and subtraction of one	a three-digit number and 100s I can add and subtract numbers with up to 3 digits, using formal written methods of	I can estimate and use inverse operations to check answers to a calculation I can solve addition and subtraction two-step	add and subtract numbers mentally with increasingly large numbers use rounding to check answers to calculations and determine, in the	Multi-step addition and subtraction problems Add and subtract integers Multiplication & Division	

composition of numbers to 5.
I can demonstrate an understanding of the composition of numbers to 10.
I can automatically recall number bonds to 5.
I can automatically

recall some number bonds to 10.
I can apply knowledge of number bonds to recall some subtraction facts to 5.

numbers to 20. including zero I can solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$ Multiplication & Division I can solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

number from another cannot I can recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems Calculations I can 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 I can solve problems with addition and

subtraction:

and pictorial

representations,

including those

quantities and

*applying their

Multiplication &

measures

methods

Division

involving numbers.

increasing knowledge

of mental and written

*using concrete objects

columnar addition and subtraction I can estimate the answer to a calculation and use inverse operations to check answers I can solve problems. including missing number problems, using number facts, place value, and more complex addition and subtraction Multiplication and division I can recall and use multiplication and division facts for the 3. 4 and 8 multiplication tables I can write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times onedigit numbers, using mental and progressing to formal written methods I can solve problems, including missing number problems, involving multiplication and division, including positive integer scaling

problems and

problems in contexts, deciding which operations and methods to use and whv. I can recall multiplication and division facts for multiplication tables up to 12 × 12 I can 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 I can recognise and use factor pairs and commutativity in mental calculations I can multiply two-digit and three-digit numbers by a one-digit number using formal written lavout I can 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

context of a problem, levels of accuracy solve addition and subtraction multi-step problems in contexts. deciding which operations and methods to use and whv identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers establish whether a number up to 100 is prime and recall prime numbers up to 19 multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for twodigit numbers multiply and divide numbers mentally. drawing upon known facts divide numbers up to 4 digits by a one-digit number using the formal written method of short division and

interpret remainders

Multiply multi-digit up to 4 digits by a twodigit (long multiplication) Divide up to 4 digits by a one, two-digits (short, long division) Interpret remainders appropriate for the context Written method Perform mental calculations (mixed operations & large numbers) Identify common factors, common multiples & prime numbers **BIDMAS** solve multi-step problems in contexts with multiple operations, Estimation to check answers & determine an appropriate degree of accuracy

I can recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers I can show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot I can calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs I can solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts

correspondence problems in which n objects are connected to m objects objects are connected to m objects.

appropriately for the context multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates

NUMBER – Fractions (including Decimals and Percentages)

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Recognising Fractions I can recognise, find and name a half as one of two equal parts of an object, shape or quantity I can recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	Recognise and Write recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity Compare I can recognise the equivalence of 2/4 and 1/2. I can write simple fractions e.g. 1/2 of 6 = 3	I can 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 I can recognise, find and write fractions of a discrete set of objects: unit fractions and nonunit fractions with small denominators I can recognise and use fractions as numbers: unit fractions with small denominators recognise and show, using diagrams, equivalent fractions with small denominators I can add and subtract fractions with the same denominator within one whole [for eg, 5/7 + 1/7 = 6/7] I can compare and order unit fractions, and fractions with the same denominators solve problems that involve all of the above	I can recognise and show, using diagrams, families of common equivalent fractions I count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. I can 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 I can add and subtract fractions with the same denominator I can recognise and write decimal equivalents of any number of tenths or hundredths I can recognise and write decimal equivalents to 4 1, 2 1, 4 3	compare and order fractions whose denominators are all multiples of the same number identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number add and subtract fractions with the same denominator, and denominators that are multiples of the same number multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams read and write decimal numbers as fractions [for example, 0.71 = 71/100] recognise and use thousandths and relate them to tenths,	use common factors to simplify fractions; use common multiples to express fractions in the same denomination compare and order fractions, including fractions >1 add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions multiply simple pairs of proper fractions, writing the answer in its simplest form divide proper fractions by whole numbers associate a fraction with division and calculate decimal fraction equivalents identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places multiply one-digit numbers with up to 2 decimal places by whole numbers

I can find the effect of dividing a one- or twodigit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths I can round decimals with one decimal place to the nearest whole number I can compare numbers with the same number of decimal places up to two decimal places I can solve simple measure and money problems involving fractions and decimals to two decimal places.

hundredths and decimal equivalents round decimals with 2 decimal places to the nearest whole number and to 1 decimal place read, write, order and compare numbers with up to 3 decimal places solve problems involving number up to 3 decimal places recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction solve problems which require knowing percentage and decimal equivalents of half, a quarter, onefifth, two-fifth and four-fifth and those fractions with a denominator of a multiple of 10 or 25

use written division methods in cases where the answer has up to 2 decimal places solve problems which require answers to be rounded to specified degrees of accuracy recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

RATIO A	NUP	RUPU	

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
						Solve problems
						involving the relative
						sizes of 2 quantities
						where missing values
						can be found by using
						integer multiplication
						and division facts Solve problems
						involving the
						calculation of
						percentages [for
						example, of measures
						and such as 15% of
						360] and the use of
						percentages for
						comparison
						Solve problems
						involving similar shapes
						where the scale factor is known or can be
						found
						Solve problems
						involving unequal
						sharing and grouping
						using knowledge of
						fractions and multiples

ALGEBRA

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Patterns and Mathematical Relationships I can talk about patterns in the environment using informal language. I can continue a simple AB pattern. I can copy and create a simple AB pattern. I can notice and correct an error in a simple pattern. I can continue and copy a more complex pattern. E.g. ABC, ABB, ABBC I can create a more complex pattern. I can notice and correct an error in a more complex pattern. I can understand the odd and even pattern of numbers up to 10. I can explore how quantities can be distributed equally within numbers up to 10. I can explore the pattern of double facts to 10.	I can solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ - 9	I can recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems I can recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100				use simple formulae generate and describe linear number sequences express missing number problems algebraically find pairs of numbers that satisfy an equation with 2 unknowns enumerate possibilities of combinations of 2 variables

MEASUREMENT

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Comparing	Comparing &	Comparing &	I can measure,	I can convert between	I can convert between	I can solve problems
I can make direct	Estimating	Estimating	compare, add and	different units of	different units of	involving the
comparisons	I can compare,	I can compare and	subtract: lengths	measure [for example,	metric measure [for	calculation and
between objects	describe and solve	order lengths, mass,	(m/cm/mm); mass	kilometre to metre;	example, kilometre and	conversion of units of
relating to size.	practical problems for:	volume/capacity and	(kg/g);	hour to	metre; centimetre and	measure, using decimal
I can begin to use	* lengths and heights	record the results using	volume/capacity (I/mI)	minute]	metre; centimetre and	notation up to 3
units to compare	[e.g. long/short,	>, < and =	I can measure the	I can measure and	millimetre; gram and	decimal places where
size.	longer/shorter,	I can compare and	perimeter of simple 2-	calculate the perimeter	kilogram; litre and	appropriate
I can make direct	tall/short, double/half]	sequence intervals of	D shapes	of a rectilinear figure	millilitre]	I can use, read, write
comparisons	* mass/weight [e.g.	time	Money	(including squares) in	understand and use	and convert between
between objects	heavy/light, heavier	I can choose and use	I can add and subtract	centimetres and	approximate	standard units,
relating to length.	than, lighter than]	appropriate standard	amounts of money to	metres	equivalences between	converting
I can begin to use	* capacity and volume	units to estimate and	give change, using both	I can find the area of	metric units and	measurements of
units to compare	[e.g. full/empty, more	measure length/height	£ and p in practical	rectilinear shapes by	common imperial units	length, mass, volume
length.	than, less than, half,	in any direction	contexts	counting squares	such as inches, pounds	and time from a
I can make direct	half full, quarter]	(m/cm); mass (kg/g);	Time	I can estimate,	and pints	smaller unit of measure
comparisons	* time [e.g. quicker,	temperature (°C);	I can tell and write the	compare and calculate	I can measure and	to a larger unit, and
between objects	slower, earlier, later]	capacity (litres/ml) to	time from an analogue	different measures,	calculate the perimeter	vice versa, using
relating to weight.	I can measure and	the nearest	clock, including using	including money in	of composite	decimal notation to up
I can begin to use	begin to record the	appropriate unit, using	Roman numerals from I	pounds and	rectilinear shapes in	to 3 decimal places
units to compare	following:	rulers, scales,	to XII, and 12-hour and	Pence	centimetres and	I can convert between
weight.	* lengths and heights	thermometers and	24-hour clocks	read, write and convert	metres	miles and kilometres
I can make direct	* mass/weight	measuring vessels	I can estimate and read	time between	I can calculate and	I can recognise that
comparisons	* capacity and volume	Money	time with increasing	analogue and digital	compare the area of	shapes with the same
between objects	*time (hours, minutes,	I can recognise and use	accuracy to the nearest	12- and 24-hour clocks	rectangles (including	areas can have
relating to capacity.	seconds)	symbols for pounds (£)	minute; record and	I can solve problems	squares), including	different perimeters
I can begin to use	Money	and pence (p); combine	compare time in terms	involving converting	using standard units,	and vice versa
units to compare	recognise and know	amounts to make a	of seconds, minutes	from hours to minutes;	square centimetres	I can recognise when it
capacity.	the value of different	particular value	and hours	minutes to seconds;	(cm ²) and square	is possible to use
I can describe a	denominations of coins	I can find different	I can use vocabulary	years to months;	metres (m²), and	formulae for area and
sequence of events.	and notes	combinations of coins	such as o'clock,	weeks to days.	estimate the area of	volume of shapes
	Time	that equal the same	am/pm, morning,		irregular shapes	I can calculate the area
	I can sequence events	amounts of money	afternoon, noon and		estimate volume [for	of parallelograms and
	in chronological order	I can solve simple	midnight		example, using 1 cm ³	triangles
	using language [e.g.	problems in a practical	I know the number of		blocks to build cuboids	I can calculate,
	before and after, next,	context involving	seconds in a minute		(including cubes)] and	estimate and compare

first, today, yesterday,	addition and	and the number of
tomorrow, morning,	subtraction of money	days in each month,
afternoon and evening]	of the same unit,	year and leap year
I can tell the time to	including giving change	I can compare
the hour and half past	Time	durations of events [for
the hour and draw the	I can tell and write the	example, to calculate
hands on a clock face	time to five minutes,	the time taken by
to show these times.	including quarter	particular events or
I can recognise and use	past/to the hour and	tasks]
language relating to	draw the hands on a	
dates, including days of	clock face to show	
the week, weeks,	these times.	
months and years	I can know the number	
	of minutes in an hour	
	and the number of	

hours in a day.

capacity [for example, using water]
I can solve problems involving converting between units of time I can use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling

volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³]

GEOMETRY – Properties of Shapes

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
I can talk about	Identifying &	Identifying &	Draw and recognise	I can compare and	I can identify 3-D	I can draw 2-D shapes
some common 2D	Properties	Properties	shapes	classify geometric	shapes, including cubes	using given dimensions
shapes using	I can identify and	I can identify and	I can draw 2-D shapes	shapes, including	and other cuboids,	and angles
informal and	describe the properties	describe the	and make 3-D shapes	quadrilaterals and	from 2-D	I can recognise,
mathematical	of 2-D shapes,	properties of 2-D	using modelling	triangles, based	representations	describe and build
language.	including the number	shapes, including the	materials;	on their properties and	I can know angles are	simple 3-D shapes,
I can talk about	of sides and line	number of sides and	I can recognise 3-D	sizes	measured in degrees:	including making nets
some common 3D	symmetry in a vertical	line symmetry in a	shapes in different	I can identify acute and	estimate and compare	I can compare and
shapes using	line	vertical line	orientations and	obtuse angles and	acute, obtuse and	classify geometric
informal and	I can identify and	I can identify and	describe them	compare and order	reflex angles	shapes based on their
mathematical	describe the properties	describe the	I can recognise angles	angles up to two right	I can draw given	properties and sizes
language.	of 3-D shapes,	properties of 3-D	as a property of shape	angles by size	angles, and measure	and find unknown
I can select shapes	including the number	shapes, including the	or a description of a	I can identify lines of	them in degrees	angles in any triangles,
appropriately for	of edges, vertices and	number of edges,	turn	symmetry in 2-D	I can identify:	quadrilaterals, and
tasks.	faces	vertices and faces	I can identify right	shapes presented in	angles at a point and	regular polygons
I can combine	I can identify and	I can identify and	angles	different orientations	one whole turn (total	illustrate and name
shapes to make	describe the properties	describe the			360°)	parts of circles,

	GEOMETRY – Position, Direction and Motion							
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		
I can explore shapes and spatial awareness by rotating and manipulating shapes. I can understand positional language. I can use positional language. I can describe and discuss a route.	I can describe position, direction and movement, including half, quarter and three-quarter turns.	I can 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) I can order and arrange combinations	I can recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 a complete turn* (as in shapes)	I can describe positions on a 2-D grid as coordinates in the first quadrant I can describe movements between positions as translations of a given unit to the left/right and up/down I can plot specified points and draw sides to complete a given polygon.	I can 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	I can describe positions on the full coordinate grid (all 4 quadrants) I can draw and translate simple shapes on the coordinate plane, and reflect them in the axes		

of mathematical objects in patterns and sequences	

STATISTICS STATISTICS						
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		I can interpret and construct simple pictograms, tally charts, block diagrams and simple tables I can ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity I can ask and answer questions about totalling and comparing categorical data	I can interpret and present data using bar charts, pictograms and tables I can solve one-step and two-step questions [for example 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables	I can interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. I can solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	I can solve comparison, sum and difference problems using information presented in a line graph I can complete, read and interpret information in tables, including timetables	I can interpret and construct pie charts and line graphs and use these to solve problems I can calculate and interpret the mean as an average