

YEAR 1

Place Value (PV)	Addition and Subtraction (AS)	Multiplication and Division (MD)
Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Count, read and write numbers to 100 in numerals.	Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.	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.
Count in multiples of 2s, 5s and 10s.	Represent and use number bonds and related subtraction facts within 20.	Measures (M)
Given a number, identify one more and one less.	Add and subtract one-digit and two-digit numbers to 20, including zero.	Compare, describe & solve practical problems for: lengths/heights (short/tall, half/ double); mass/weight(heavier/lighter); capacity/volume (full/empty, more/less); time (quicker/slower/later)
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.	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $5 = \quad - 3$.	Measure and begin to record the following: lengths/heights; mass/weight; capacity/volume; time (hours, minutes, seconds).
Read and write numbers from 1 to 20 in numerals and words.	Geometry (G)	Recognise and know the value of different denominations of coins and notes.
Fractions (F)	Recognise and name common 2-D shapes [e.g. rectangles, squares, circles and triangles] and 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres].	Sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening.
Recognise, find and name a half as one of two equal parts of an object, shape or quantity.	Describe position, directions and movements, including whole, half, quarter and three-quarter turns.	Recognise and use language relating to dates, including days of the week, weeks, months and years.
Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.		Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.

YEAR 2

Place Value (PV)	Addition and Subtraction (AS)	Multiplication and Division (MD)
Count from 0 in multiples of 4, 8, 50 and 100. Find 10 or 100 more or less than a given number.	Add and subtract numbers mentally, including: a 3-digit number and 1s, 10s, 100s.	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).	Add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction.	Write and calculate mathematics statements for \times and \div using the tables they know, including 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods.
Compare and order numbers up to 1000.	Estimate the answer to a calculation and use inverse operations to check answers.	Solve problems and missing number problems, involving \times and \div , including integer scaling problems and correspondence problems in which n objects are connected to m objects.
Read and write numbers up to 1000 in numerals and in words.		
Identify, represent and estimate numbers using different representations.	Solve problems, including missing number problems using number facts, place value, and more complex addition/subtraction.	Fractions (F)
Solve number problems and practical problems involving these ideas.	Measures (M)	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.
Geometry (G)	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).	Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.
Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.	Measure the perimeter of simple 2-D shapes.	Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.
Recognise angles as a property of shape or a description of a turn.	Add and subtract amounts of money to give change, using both \pounds and p in practical contexts.	Recognise and show, using diagrams, equivalent fractions with small denominators.
Identify right angles, recognise that 2 right angles make a half-turn, 3 make three quarters of a turn and 4 a complete turn. Identify whether angles are greater than or less than a right angle.	Tell/write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hr/24-hr clocks.	Add and sub fractions with the same denominator within one whole (e.g. $\frac{2}{7} + \frac{1}{7} = \frac{3}{7}$).
Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.	Estimate and read time with increasing accuracy to the nearest minute; record/compare time in seconds, minutes, hours. Use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight.	Compare and order unit fractions, and fractions with the same denominators.
Statistics (S)	Know the number of seconds in a minute and the number of days in each month, year and leap year.	Solve problems that involve all of the above.
Interpret and present data using bar charts, pictograms and tables.		
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.		

YEAR 3

Place Value (PV)	Addition and Subtraction (AS)	Multiplication and Division (MD)
Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward.	Solve problems with addition and subtraction: using concrete objects and pictorial representations; applying their increasing knowledge of mental and written methods.	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
Recognise the place value of each digit in a two-digit number (tens, ones).	Recall and use add and subtract facts to 20 fluently, and derive and use related facts up to 100.	Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs.
Identify, represent and estimate numbers using different representations, including the number line.	Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a 2-digit no and 1s or 10s; two 2-digit numbers; adding three 1-digit numbers.	Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
Compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs.	Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
Read and write numbers to at least 100 in numerals and in words.	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.	Measures (M)
Geometry (G)	Fractions (F)	Choose/use appropriate standard units to estimate/measure length/height (m/cm); mass (kg/g); temp ($^{\circ}$ C); cap (litres/ml) to nearest unit, using rulers, scales, thermometers and measuring vessels.
Identify and describe the properties of 2D shapes, including the number of sides and symmetry in a vertical line.	Recognise/find/name/write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$ of a length, shape, set of objects or quantity.	Compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$.
Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces.	Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.	Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. Find different combinations of coins that equal the same amounts of money.
Identify 2D shapes on the surface of 3D shapes, e.g. circle on a cylinder; a triangle on a pyramid.	Statistics (S)	Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.
Compare and sort common 2D and 3D shapes and everyday objects.	Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.	Compare and sequence intervals of time.
Order and arrange combinations of mathematical objects in patterns and sequences.	Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity;	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.
Use math vocab to describe position, direction and movement including movement in a straight line and distinguishing rotation as a turn and in terms of right angles for $\frac{1}{4}$, $\frac{1}{2}$, & $\frac{3}{4}$ turns (clock/anti-clockwise).	Ask and answer questions about totalling and comparing categorical data.	Know the number of minutes in an hour and the number of hours in a day.

YEAR 4

Place Value (PV)	Addition and Subtraction (AS)	Multiplication and Division (MD)
Count in multiples of 6, 7, 9, 25 and 1000.	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. Estimate and use inverse operations to check answers to a calculation. Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.	Recall multiplication and division facts for multiplication tables up to 12×12 .
Find 1000 more or less than a given number.		Recognise and use factor pairs and commutativity in mental calculations.
Round any number to the nearest 10, 100 or 1000.		Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.
Count backwards through zero to include negative numbers.		Solve problems involving \times and $+$, including using the distributive law to multiply 2-digit numbers by 1-digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.
Recognise the place value of each digit in a 4-digit number (thousands, hundreds, tens, and ones).	Solve problems involving \times and $+$, including using the distributive law to multiply 2-digit numbers by 1-digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.	
Order and compare numbers beyond 1000.		
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.	Recognise and show, using diagrams, families of common equivalent fractions.	Geometry (G)
Measures (M)	Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
Convert between different units of measure (e.g. kilometre to metre).	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.	Identify acute and obtuse angles and compare and order angles up to two right angles by size.
Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.	Add and subtract fractions with the same denominator.	Identify lines of symmetry in 2-D shapes presented in different orientations.
Find the area of rectilinear shapes by counting squares.		Complete a simple symmetric figure with respect to a specific line of symmetry.
Estimate, compare and calculate different measures, including money in pounds and pence.	Recognise and write decimal equivalents of any number of tenths or hundredths.	Describe positions on a 2-D grid as coordinates in the first quadrant.
Read, write and convert time between analogue and digital 12 and 24-hour clocks.	Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$.	Describe movements between positions as translations of a given unit to the left/right and up/down.
Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.		
Statistics (S)	Find the effect of dividing a one- or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.	Plot specified points and draw sides to complete a given polygon.
Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.	Round decimals with one decimal place to the nearest whole number.	
Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	Solve simple measure and money problems involving fractions and decimals to 2 decimal places.	

Place Value (PV)	Addition and Subtraction (AS)	Multiplication and Division (MD)
Read, write, order & compare numbers to at least 1 000 000 and determine the value of each digit.	Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).	Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.	Add and subtract numbers mentally with increasingly large numbers.	Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.
Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	Use rounding to check answers to calculations and levels of accuracy.	Establish whether a number up to 100 is prime and recall prime numbers up to 19.
Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	Multiply numbers up to 4 digits by a 1- or 2-digit number using a formal written method.
Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.		Divide numbers up to 4 digits by a 1-digit number using the formal written method of short division.
	Fractions (F)	Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.
Measures (M)	Compare and order fractions whose denominators are all multiples of the same number.	Recognise and use square numbers and cube numbers, and the notation for squared and cubed.
Convert between different units of metric measure (e.g. km & m; cm & m; cm & mm; g & kg; l & ml).	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.	Geometry (G)
Understand and Use approximate equivalences between metric and imperial units (e.g. inches, pounds & pints).	Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number.	
Measure & calculate the perimeter of composite rectilinear shapes in cm/m.	Add and subtract fractions with the same denominator and multiples of the same number.	Identify 3D shapes, including cubes and other cuboids, from 2D representations.
Calculate the area of rectangles using standard units, square cm/m and estimate the area of irregular shapes.	Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.	
Estimate volume (e.g. using 1 cm blocks to build cubes/cuboids) and capacity (e.g. using water).	Read and write decimal numbers as fractions (e.g. $0.72 = \frac{72}{100}$).	Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.
Solve problems involving converting between units of time.	Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.	Draw given angles, and measure them in degrees.
Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.	Round decimals with two decimal places to the nearest whole number and to one decimal place.	Identify: angles at a point and one whole turn (total 360°); angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°); other multiples of 90° .
Statistics (S)	Read, write, order and compare numbers with up to three decimal places.	Use the properties of rectangles to deduce related facts and find missing lengths and angles.
Solve comparison, sum and difference problems using information presented in a line graph.	Solve problems involving number up to three decimal places.	
Complete, read and interpret information in tables, including	Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{1}{5}$ and those with a denominator of a multiple of 10 or 25.	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.

timetables.

YEAR 6

Fractions (F)	Add, Sub, Mult. and Division	Measures (M)
Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.	Multiply and divide numbers up to 4 digits by a 2-digit whole number using the formal written methods of long multiplication and interpret remainders as whole number remainders, fractions, or by rounding.	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.
Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	Divide numbers up to 4 digits by a two-digit whole number, using formal methods of long division and interpret remainders as whole numbers, fractions, or by rounding.	Convert between miles and km
Multiply simple proper fractions and simplify the answer (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$).		Use, read, write and convert between standard units of measure, converting length, mass, volume and time from smaller to larger units, and vice versa, using decimal notation to up to 3 decimal places.
Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$).	Identify common factors, common multiples and prime numbers.	Recognise that shapes with the same areas can have different perimeters and vice versa.
Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places.	Use their knowledge of the order of operations to carry out calculations involving the four operations.	Calculate the area of parallelograms and triangles.
Multiply one-digit numbers with up to two decimal places by whole numbers.	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	Recognise when it is possible to use formulae for area and volume of shapes.
Use written division methods in cases where the answer has up to two decimal places.		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, for example mm ³ and km ³
Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.		
Place Value (PV)	Geometry (G)	Algebra (A)
Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.	Draw 2-D shapes using given dimensions and angles. Recognise, describe and build simple 3-D shapes, including making nets.	Express missing number problems algebraically. Use simple formulae expressed in words.
Round any whole number to a required degree of accuracy.	Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.	Generate and describe linear number sequences. Find pairs of numbers that satisfy an equation with two unknowns. Enumerate possibilities of combinations of two variables
Use negative numbers in context, and calculate intervals across zero.		Position and Direction (PD)
		Describe positions on the full coordinate grid (all four quadrants).

Use negative numbers in context, and calculate intervals across zero.	Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.	Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
Solve number and practical problems that involve all of the above.	Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	
Ratio and Proportion (RP)		
Solve problems involving the calculation of percentages (e.g. of measures) such as 15% of 360 and the use of percentages for comparison.	Statistics (S)	
Solve problems involving similar shapes where the scale factor is known or can be found	Interpret and construct pie charts and line graphs and use these to solve problems.	
Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.	Calculate and interpret the mean as an average.	