

# Mathematics Curriculum Milestones

Year 1	Geometry - position and direction	Describe position direction and movement including whole half quarter and three-quarter turns
Year 1	Geometry - properties of shapes	Recognises and names common 2-D and 3-D shapes including:
Year 1	Geometry - properties of shapes	2-D shapes e.g. rectangles (including squares) circles and triangles
Year 1	Geometry - properties of shapes	3-D shapes e.g. cuboids (including cubes) pyramids and spheres
Year 1	Measurement	Compare describe and solve practical problems for:
Year 1	Measurement	Lengths and heights e.g. long/short longer/shorter tall/short double/half
Year 1	Measurement	Mass/weight e.g. heavy/light heavier than lighter than
Year 1	Measurement	Capacity and volume e.g. full/empty more than less than half half full quarter
Year 1	Measurement	Time e.g. quicker slower earlier later
Year 1	Measurement	Measure and begin to record the following:
Year 1	Measurement	Lengths and heights
Year 1	Measurement	Mass/weight
Year 1	Measurement	Capacity and volume
Year 1	Measurement	Time (hours minutes seconds)
Year 1	Measurement	Recognise and know the value of different denominations of coins and notes
Year 1	Measurement	Sequence events in chronological order using language [for example before and after next first today yesterday tomorrow morning afternoon and evening]
Year 1	Measurement	Recognise and use language relating to dates including days of the week weeks months and years
Year 1	Measurement	Tells the time to the hour and half past the hour and draw the hands on a clock face to show these times
Year 1	Number - addition and subtraction	Read write and interpret mathematical statements involving addition (+) subtraction (-) and equals (=) signs
Year 1	Number - addition and subtraction	Represent and use number bonds and related subtraction facts within 20
Year 1	Number - addition and subtraction	Add and subtract one-digit and two-digit numbers to 20 including 0
Year 1	Number - addition and subtraction	Solve one-step problems that involve addition and subtraction using concrete objects and pictorial representations and missing number problems such as $7 = ? - 9$
Year 1	Number - fractions	Recognises finds and names a half as one of two equal parts of an object shape or quantity

Year 1	Number - fractions	Recognise find and name a quarter as 1 of 4 equal parts of an object shape or quantity
Year 1	Number - multiplication and division	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
Year 1	Number - number and place value	Count to and across 100 forwards and backwards beginning with 0 or 1 or from any given number
Year 1	Number - number and place value	Count read and write numbers to 100 in numerals; count in multiples of twos fives and tens
Year 1	Number - number and place value	Given a number to 100 identifies 1 more and 1 less
Year 1	Number - number and place value	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
Year 1	Number - number and place value	Read and write numbers from 1 to 20 in numerals and words
Year 2	Geometry - position and direction	Order and arrange combinations of mathematical objects in patterns and sequences
Year 2	Geometry - position and direction	Uses 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)
Year 2	Geometry - properties of shapes	Identify and describe the properties of 2-D shapes including the number of sides and line symmetry in a vertical line (using these features to compare shapes equals greater depth)
Year 2	Geometry - properties of shapes	Identify and describe the properties of 3-D shapes including the number of edges vertices and faces (using these features to compare shapes equals greater depth)
Year 2	Geometry - properties of shapes	Identify 2-D shapes on the surface of 3-D shapes [for example a circle on a cylinder and a triangle on a pyramid]
Year 2	Geometry - properties of shapes	Compares and sorts common 2-D and 3-D shapes and everyday objects
Year 2	Measurement	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
Year 2	Measurement	Compare and order lengths mass volume/capacity and record the results using > < and =
Year 2	Measurement	Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value
Year 2	Measurement	Find different combinations of coins that equal the same amounts of money

Year 2	Measurement	Solves simple problems in a practical context involving addition and subtraction of money of the same unit including giving change
Year 2	Measurement	Compare and sequence intervals of time
Year 2	Measurement	Tell and write the time to 15 minutes including quarter past/to the hour and draw the hands on a clock face to show these times. (To 5 mins would show greater depth)
Year 2	Measurement	Know the number of minutes in an hour and the number of hours in a day
Year 2	Measurement	Use different coins to make the same amount
Year 2	Measurement	Read Scales in 1s 2s 5s and 10s in a practical situation (Reading between indicated points is working at greater depth)
Year 2	Number - addition and subtraction	Solves problems with addition and subtraction by:
Year 2	Number - addition and subtraction	Using concrete objects and pictorial representations including those involving numbers quantities and measures
Year 2	Number - addition and subtraction	Applying their increasing knowledge of mental and written methods: (Showing reasoning about the use of addition and subtraction e.g. the sum of 3 odd numbers will be odd is working at greater depth)
Year 2	Number - addition and subtraction	Recalls and uses addition and subtraction facts to 20 and 100: (Where re-grouping is needed indicates greater depth)
Year 2	Number - addition and subtraction	Fluently up to 20.
Year 2	Number - addition and subtraction	Add and subtract numbers using concrete objects pictorial representations and mentally including:
Year 2	Number - addition and subtraction	A two-digit number and 1s
Year 2	Number - addition and subtraction	A two-digit number and 10s
Year 2	Number - addition and subtraction	2 two-digit numbers
Year 2	Number - addition and subtraction	Adding 3 one-digit numbers
Year 2	Number - addition and subtraction	Show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot
Year 2	Number - addition and subtraction	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems
Year 2	Number - fractions	Recognises 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
Year 2	Number - fractions	Write simple fractions for example of $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ (finding unitary fractions [not $\frac{1}{2}$ ] of amounts is working at greater depth)

Year 2	Number - multiplication and division	Recalls and use multiplication and division facts for the two five and 10 multiplication tables including recognising odd and even numbers (using known facts to derive others is working at greater depth)
Year 2	Number - multiplication and division	Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x) division ( $\div$ ) and equals (=) signs
Year 2	Number - multiplication and division	Show that multiplication of 2 numbers can be done in any order (commutative) and division of 1 number by another cannot (ability to indicate remainders shows greater depth)
Year 2	Number - multiplication and division	Solves problems involving multiplication and division using materials arrays repeated addition mental methods and multiplication and division facts including problems in contexts. (recognising that repeated addition can be rewritten as multiplication is working at greater depth)
Year 2	Number - number and place value	Count in steps of two three and five from 0 and in 10s from any number forward and backward
Year 2	Number - number and place value	Recognise the place value of each digit in a two-digit number (10s 1s)
Year 2	Number - number and place value	Identify represent and estimate numbers using different representations including the number line
Year 2	Number - number and place value	Compares and orders numbers from 0 up to 100
Year 2	Number - number and place value	Uses < > and = signs correctly
Year 2	Number - number and place value	Read and write numbers to at least 100 in numerals and in words with numerals correctly formed
Year 2	Number - number and place value	Uses place value and number facts to solve problems
Year 2	Statistics	Interpret and construct simple pictograms tally charts block diagrams and tables
Year 2	Statistics	Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity
Year 2	Statistics	Asks and answers questions about totalling and comparing categorical data
Year 3	Algebra	Solve missing number problems in simple number sentences.
Year 3	Geometry - properties of shapes	Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-d shapes in different orientations and describe them
Year 3	Geometry - properties of shapes	Recognise angles as a property of shape or a description of a turn
Year 3	Geometry - properties of shapes	Identify horizontal and vertical lines and pairs of perpendicular and parallel lines
Year 3	Measurement	Measures compare adds and subtracts lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
Year 3	Measurement	Measure the perimeter of simple 2-D shapes

Year 3	Measurement	Adds and subtracts amounts of money to give change using both £ and p in practical contexts
Year 3	Measurement	Tells and writes the time from an analogue clock including using roman numerals from I to XII and 12-hour and 24-hour clocks
Year 3	Measurement	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 am/pm morning afternoon noon and midnight
Year 3	Measurement	Know the number of seconds in a minute and the number of days in each month year and leap year
Year 3	Measurement	Compare durations of events [for example to calculate the time taken by particular events or tasks]
Year 3	Measurement	Identifies right angles recognises that two right angles make a half-turn three make three quarters of a turn and four a complete turn; identifies whether angles are greater than or less than a right angle
Year 3	Number - addition and subtraction	Add and subtract numbers mentally including:
Year 3	Number - addition and subtraction	A three-digit number and ones
Year 3	Number - addition and subtraction	A three-digit number and tens
Year 3	Number - addition and subtraction	A three-digit number and hundreds
Year 3	Number - addition and subtraction	Add and subtract numbers with up to 3 digits using formal written methods of columnar addition and subtraction
Year 3	Number - addition and subtraction	Estimate the answer to a calculation and use inverse operations to check answers
Year 3	Number - addition and subtraction	Solve problems including missing number problems using number facts place value and more complex addition and subtraction
Year 3	Number - fractions	Counts 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
Year 3	Number - fractions	Recognises find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
Year 3	Number - fractions	Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators
Year 3	Number - fractions	Recognises and shows using diagrams equivalent fractions with small denominators
Year 3	Number - fractions	Add and subtract fractions with the same denominator within one whole [for example $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ ]
Year 3	Number - fractions	Compare and order unit fractions and fractions with the same denominators

Year 3	Number - fractions	Solve problems that involve all of the above
Year 3	Number - multiplication and division	Recalls and uses multiplication and division facts for the multiplication tables:
Year 3	Number - multiplication and division	Three;
Year 3	Number - multiplication and division	Four; and
Year 3	Number - multiplication and division	Eight.
Year 3	Number - multiplication and division	Writes and calculates 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
Year 3	Number - multiplication and division	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
Year 3	Number - number and place value	Can work out if a given number is greater or less than 10 or 100
Year 3	Number - number and place value	Recognises the place value of each digit in a 3-digit number (hundreds tens and ones)
Year 3	Number - number and place value	Compare and order numbers up to 1 000
Year 3	Number - number and place value	Identify represent and estimate numbers using different representations
Year 3	Number - number and place value	Read and write numbers up to 1 000 in numerals and in words
Year 3	Number - number and place value	Solves number problems and practical problems involving these ideas
Year 3	Statistics	Interprets and presents data using bar charts pictograms and tables
Year 3	Statistics	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 4	Algebra	Solve missing number problems in column addition and subtraction.
Year 4	Geometry - position and direction	Describe positions on a 2-D grid as coordinates in the first quadrant
Year 4	Geometry - position and direction	Describe movements between positions as translations of a given unit to the left/right and up/down
Year 4	Geometry - position and direction	Plots specified points and draw sides to complete a given polygon
Year 4	Geometry - properties of shapes	Compares and classifies geometric shapes including quadrilaterals and triangles based on their properties and sizes
Year 4	Geometry - properties of shapes	Identify acute and obtuse angles and compare and order angles up to 2 right angles by size

Year 4	Geometry - properties of shapes	Identify lines of symmetry in two dimensional shapes presented in different orientations
Year 4	Geometry - properties of shapes	Complete a simple symmetric figure with respect to a specific line of symmetry
Year 4	Measurement	Converts between different units of measure e.g. kilometre to metre; hour to minute
Year 4	Measurement	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
Year 4	Measurement	Find the area of rectilinear shapes by counting squares
Year 4	Measurement	Estimate compare and calculate different measures including money in pounds and pence
Year 4	Measurement	Read write and convert time between analogue and digital 12- and 24-hour clocks
Year 4	Measurement	Solve problems involving converting from hours to minutes minutes to seconds years to months weeks to days
Year 4	Number - addition and subtraction	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
Year 4	Number - addition and subtraction	Estimate and use inverse operations to check answers to a calculation
Year 4	Number - addition and subtraction	Solves addition and subtraction two-step problems in context deciding which operations and methods to use and why
Year 4	Number - fractions	Recognises and shows using diagrams families of common equivalent fractions
Year 4	Number - fractions	Counts up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10
Year 4	Number - fractions	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
Year 4	Number - fractions	Add and subtract fractions with the same denominator
Year 4	Number - fractions	Recognise and write decimal equivalents of any number of tenths or hundreds
Year 4	Number - fractions	Recognise and write decimal equivalents to $\frac{1}{4}$ $\frac{1}{2}$ and $\frac{3}{4}$
Year 4	Number - fractions	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
Year 4	Number - fractions	Rounds decimals with one decimal place to the nearest whole number
Year 4	Number - fractions	Compare numbers with the same number of decimal places up to 2 decimal places
Year 4	Number - fractions	Solves simple measure and money problems involving fractions and decimals to two decimal places

Year 4	Number - multiplication and division	Recalls multiplication and division facts for multiplication tables up to 12 x 12
Year 4	Number - multiplication and division	Use place value known and derived facts to multiply and divide mentally including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers
Year 4	Number - multiplication and division	Recognise and use factor pairs and commutativity in mental calculations
Year 4	Number - multiplication and division	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout
Year 4	Number - multiplication and division	Solve problems involving multiplying and adding including using the distributive law to multiply two-digit numbers by 1 digit integer scaling problems and harder correspondence problems such as n objects are connected to m objects
Year 4	Number - number and place value	Count in multiples of six seven nine 25 and 1 000
Year 4	Number - number and place value	Find 1 000 more or less than a given number
Year 4	Number - number and place value	Counts backwards through 0 to include negative numbers
Year 4	Number - number and place value	Recognise the place value of each digit in a four-digit number (1 000s 100s 10s and 1s)
Year 4	Number - number and place value	Orders and compares numbers beyond 1 000
Year 4	Number - number and place value	Identify represent and estimate numbers using different representations
Year 4	Number - number and place value	Rounds any number to the nearest 10 100 or 1 000
Year 4	Number - number and place value	Use rounded numbers to produce estimates and to check written calculations
Year 4	Number - number and place value	Solve number and practical problems that involve all of the above and with increasingly large positive numbers
Year 4	Number - number and place value	Read roman numerals to 100 (I to C) and know that over time the numeral system changed to include the concept of 0 and place value
Year 4	Statistics	Interpret and present discrete and continuous data using appropriate graphical methods including bar charts and time graphs
Year 4	Statistics	Solves comparison sum and difference problems using information presented in bar charts pictograms tables and other graphs
Year 5	Algebra	Solve missing number problems in written addition subtraction and multiplication.
Year 5	Geometry - position and direction	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
Year 5	Geometry - properties of shapes	Identify 3-D shapes including cubes and other cuboids from 2-D representations

Year 5	Geometry - properties of shapes	Know angles are measured in degrees: estimate and compare acute obtuse and reflex angles
Year 5	Geometry - properties of shapes	Draws given angles and measure them in degrees ( $^{\circ}$ )
Year 5	Geometry - properties of shapes	Identify:
Year 5	Geometry - properties of shapes	Angles at a point and 1 whole turn (total $360^{\circ}$ )
Year 5	Geometry - properties of shapes	Angles at a point on a straight line and half a turn (total $180^{\circ}$ )
Year 5	Geometry - properties of shapes	Other multiples of $90^{\circ}$
Year 5	Geometry - properties of shapes	Use the properties of rectangles to deduce related facts and find missing lengths and angles
Year 5	Geometry - properties of shapes	Distinguishes between regular and irregular polygons based on reasoning about equal sides and angles
Year 5	Measurement	Converts between different units of metric measure eg kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre
Year 5	Measurement	Understand and use approximate equivalences between metric units and common imperial units such as inches pounds and pints
Year 5	Measurement	Measures and calculates the perimeter of composite rectilinear shapes in centimetres and metres
Year 5	Measurement	Calculate and compare the area of rectangles (including squares) including using standard units square centimetres ( $\text{cm}^2$ ) and square metres ( $\text{m}^2$ ) and estimate the area of irregular shapes
Year 5	Measurement	Calculates and compares the area of rectangles (including squares) including using standard units square centimetres ( $\text{cm}^2$ ) and square metres ( $\text{m}^2$ )
Year 5	Measurement	Estimate volume [for example using $1 \text{ cm}^3$ blocks to build cuboids (including cubes)] and capacity [for example using water]
Year 5	Measurement	Solve problems involving converting between units of time
Year 5	Measurement	Use all four operations to solve problems involving measure [for example length mass volume money] using decimal notation including scaling
Year 5	Number - addition and subtraction	Adds and subtracts whole numbers with more than 4 digits including using formal written methods (columnar addition and subtraction)
Year 5	Number - addition and subtraction	Adds and subtracts numbers mentally with increasingly large numbers (eg $12\,462 - 2\,300 = 10\,162$ )
Year 5	Number - addition and subtraction	Use rounding to check answers to calculations and determine in the context of a problem levels of accuracy

Year 5	Number - addition and subtraction	Solve addition and subtraction multi-step problems in contexts deciding which operations and methods to use and why
Year 5	Number - fractions	Compares and orders fractions whose denominators are all multiples of the same number
Year 5	Number - fractions	Identify name and write equivalent fractions of a given fraction represented visually including tenths and hundredths
Year 5	Number - fractions	Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements $> 1$ as a mixed number [for example $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$ ]
Year 5	Number - fractions	Add and subtract fractions with the same denominator and denominators that are multiples of the same number
Year 5	Number - fractions	Multiply proper fractions and mixed numbers by whole numbers supported by materials and diagrams
Year 5	Number - fractions	Read and write decimal numbers as fractions e.g. $0.71 = \frac{71}{100}$
Year 5	Number - fractions	Recognise and use thousandths and relate them to tenths hundredths and decimal equivalents
Year 5	Number - fractions	Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place
Year 5	Number - fractions	Reads writes orders and compares numbers with up to 3 decimal places
Year 5	Number - fractions	Solve problems involving number up to 3 decimal places
Year 5	Number - fractions	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
Year 5	Number - fractions	Solves 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
Year 5	Number - multiplication and division	Identifies multiples and factors including finding all factor pairs of a number and common factors of two numbers
Year 5	Number - multiplication and division	Know and use the vocabulary of prime numbers prime factors and composite (non-prime) numbers
Year 5	Number - multiplication and division	Establish whether a number up to 100 is prime and recall prime numbers up to 19
Year 5	Number - multiplication and division	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
Year 5	Number - multiplication and division	Multiply and divide numbers mentally drawing upon known facts
Year 5	Number - multiplication and division	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

Year 5	Number - multiplication and division	Multiply and divide whole numbers and those involving decimals by 10 100 and 1 000
Year 5	Number - multiplication and division	Recognise and use square numbers and cube numbers and the notation for squared ( <sup>2</sup> ) and cubed ( <sup>3</sup> )
Year 5	Number - multiplication and division	Solves problems involving multiplication and division including using a knowledge of factors and multiples squares and cubes
Year 5	Number - multiplication and division	Solve problems involving addition subtraction multiplication and division and a combination of these including understanding the meaning of the equals sign
Year 5	Number - multiplication and division	Solves problems involving multiplication and division including scaling by simple fractions and problems involving simple rates
Year 5	Number - number and place value	Reads writes orders and compares numbers to at least 1 000 000 and determine the value of each digit
Year 5	Number - number and place value	Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000
Year 5	Number - number and place value	Interprets negative numbers in context count forwards and backwards with positive and negative whole numbers including through zero
Year 5	Number - number and place value	Round any number up to 1 000 000 to the nearest 10 100 1 000 10 000 and 100 000
Year 5	Number - number and place value	Solve number problems and practical problems that involve all of the above
Year 5	Number - number and place value	Read Roman numerals to 1 000 (M) and recognise years written in Roman numerals
Year 5	Statistics	Solve comparison sum and difference problems using information presented in a line graph
Year 5	Statistics	Completes reads and interprets information in tables including timetables
Year 6	Algebra	Uses simple formulae
Year 6	Algebra	Generate and describe linear number sequences
Year 6	Algebra	Express missing number problems algebraically
Year 6	Algebra	Find pairs of numbers that satisfy an equation with 2 unknowns
Year 6	Algebra	Enumerate possibilities of combinations of 2 variables
Year 6	Geometry - position and direction	Describe positions on the full coordinate grid (all 4 quadrants)
Year 6	Geometry - position and direction	Draws and translate simple shapes on the coordinate plane and reflect them in the axes
Year 6	Geometry - properties of shapes	Draw 2-D shapes using given dimensions and angles
Year 6	Geometry - properties of shapes	Recognise describe and build simple 3-D shapes including making nets
Year 6	Geometry - properties of shapes	Compares and classifies geometric shapes based on their properties and sizes and find unknown angles in any triangles quadrilaterals and regular polygons

Year 6	Geometry - properties of shapes	Illustrate and name parts of circles including radius diameter and circumference and know that the diameter is twice the radius
Year 6	Geometry - properties of shapes	Recognise angles where they meet at a point are on a straight line or are vertically opposite and find missing angles
Year 6	Measurement	Solve problems involving the calculation and conversion of units of measure using decimal notation up to 3 decimal places where appropriate
Year 6	Measurement	Uses reads writes and converts 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 to three decimal places
Year 6	Measurement	Convert between miles and kilometres
Year 6	Measurement	Recognise that shapes with the same areas can have different perimeters and vice versa
Year 6	Measurement	Recognise when it is possible to use formulae for area and volume of shapes
Year 6	Measurement	Calculate the area of parallelograms and triangles
Year 6	Measurement	Calculate estimate and compare volume of cubes and cuboids using standard units including cubic centimetres (cm <sup>3</sup> ) and cubic metres (m <sup>3</sup> ) and extending to other units [for example mm <sup>3</sup> and km <sup>3</sup> ]
Year 6	Number - addition subtraction multiplication and division	Multiplies multi-digit numbers up to four digits by a two-digit whole number using the formal written method of long multiplication
Year 6	Number - addition subtraction multiplication and division	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
Year 6	Number - addition subtraction multiplication and division	Divides numbers up to four digits by a two-digit number using the formal written method of short division where appropriate interpreting remainders according to the context
Year 6	Number - addition subtraction multiplication and division	Perform mental calculations including with mixed operations and large numbers
Year 6	Number - addition subtraction multiplication and division	Identify common factors common multiples and prime numbers
Year 6	Number - addition subtraction multiplication and division	Use their knowledge of the order of operations to carry out calculations involving the 4 operations

Year 6	Number - addition subtraction multiplication and division	Solves addition and subtraction multi-step problems in contexts deciding which operations and methods to use and why
Year 6	Number - addition subtraction multiplication and division	Solve problems involving addition subtraction multiplication and division
Year 6	Number - addition subtraction multiplication and division	Uses estimation to check answers to calculations and determines in the context of a problem an appropriate degree of accuracy
Year 6	Number - fractions	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
Year 6	Number - fractions	Compare and order fractions including fractions $> 1$
Year 6	Number - fractions	Add and subtract fractions with different denominators and mixed numbers using the concept of equivalent fractions
Year 6	Number - fractions	Multiply simple pairs of proper fractions writing the answer in its simplest form [for example $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$ ]
Year 6	Number - fractions	Divide proper fractions by whole numbers [for example $\frac{1}{3} \div 2 = \frac{1}{6}$ ]
Year 6	Number - fractions	Associate a fraction with division and calculate decimal fraction equivalents [for example 0.375] for a simple fraction [for example $\frac{3}{8}$ ]
Year 6	Number - fractions	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
Year 6	Number - fractions	Multiply one-digit numbers with up to 2 decimal places by whole numbers
Year 6	Number - fractions	Uses written division methods in cases where the answer has up to two decimal places
Year 6	Number - fractions	Solves problems which require answers to be rounded to specified degrees of accuracy
Year 6	Number - fractions	Recalls and uses equivalences between simple fractions decimals and percentages including in different contexts
Year 6	Number - number and place value	Read write order and compare numbers up to 10 000 000 and determine the value of each digit
Year 6	Number - number and place value	Rounds any whole number to a required degree of accuracy
Year 6	Number - number and place value	Uses negative numbers in context and calculate intervals across zero
Year 6	Number - number and place value	Solve number and practical problems that involve all of the above
Year 6	Ratio and proportion	Solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts

Year 6	Ratio and proportion	Solve problems involving the calculation of percentages eg of measures and such as 15% of 360 and the use of percentages for comparison
Year 6	Ratio and proportion	Solve problems involving similar shapes where the scale factor is known or can be found
Year 6	Ratio and proportion	Solves problems involving unequal sharing and grouping using knowledge of fractions and multiples
Year 6	Statistics	Interpret and construct pie charts and line graphs and use these to solve problems
Year 6	Statistics	Calculates and interprets the mean as an average