



Year 1

End of Year Expectations

Mathematics

Number And Place Value

- Counts to and across 100, forwards and backwards, beginning with 0 or one, or from any given number
- Counts, reads and writes numbers to 100 in numerals; counts in multiples of twos, fives and tens
- Given a number, identifies one more and one less

Addition and Subtraction

- Represents and uses number bonds and related subtraction facts within 20
- Fractions (including decimals)
- Recognises, finds and names a half as one of two equal parts of an object, shape or quantity

Measurement

Compares, describes and solves 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. Tells the time to the hour and half past the hour and draws the hands on a clock face to show these times

Properties of Shape

Recognises and names 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.



Year 2

End of Year Expectations

Mathematics

Number and place value

- Counts in steps of two, three, and five from 0, and in tens from any number, forward and backward
- Compares and orders numbers from 0 up to 100
- Uses $<$ $>$ and $=$ signs correctly
- Uses place value and number facts to solve problems

Addition and subtraction

Solves problems with addition and subtraction by:

- Using concrete objects and pictorial representations, including those involving numbers, quantities and measures; and
- Applying an increasing knowledge of mental and written methods.
- Recalls and uses addition and subtraction facts to 20 and 100: fluently up to 20.

Multiplication and division

- Recalls and uses multiplication and division facts for the two, five and 10 multiplication tables, including recognising odd and even numbers
- Solves problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts

Fractions (including decimals)

- Recognises, finds, names and writes fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ of a length, shape, set of objects or quantity

Measurement

- Solves simple problems in a practical context involving addition and subtraction of money of the same unit including giving change

Geometry: properties of shape

- Compares and sorts common 2-D and 3-D shapes and everyday objects

Geometry: position and direction

- Uses mathematical vocabulary to describe position, direction and movement including movement in a straight line, and distinguishes between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)

Statistics

- Asks and answers questions about totalling and comparing categorical data.



Year 3

End of Year Expectations

Mathematics

Number and place value

- Counts from 0 in multiples of four, eight, 50 and 100
- Can work out if a given number is greater or less than 10 or 100
- Recognises the place value of each digit in a three-digit number (hundreds, tens, and ones)
- Solves number problems and practical problems involving these ideas

Addition and subtraction

Adds and subtracts numbers mentally including:

- Digit number and ones; digit number and tens; and digit number and hundreds.

Multiplication and division

- Recalls and uses multiplication and division facts for the multiplication tables:
- Writes and calculates mathematical statements for multiplication and division using the multiplication tables that are known including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods

Fractions (including decimals)

- Counts up and down in tenths; recognises that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10
- Recognises, finds and writes fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
- Recognises and shows, using diagrams, equivalent fractions with small denominators

Measurement

- Measures, compares, adds and subtracts lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
- Adds and subtracts amounts of money to give change, using both £ and p in practical contexts
- Tells and writes the time from an analogue clock and 12-hour and 24-hour clocks
- 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

Statistics

- Interprets and presents data using bar charts, pictograms and tables



Year 4

End of Year Expectations

Mathematics

Number and place value

- Counts in multiples of six, seven, nine, 25 and 1,000
- Counts backwards through zero to include negative numbers
- Orders and compares numbers beyond 1,000
- Rounds any number to the nearest 10, 100 or 1,000

Addition and subtraction

- Solves addition and subtraction two-step problems in context, deciding which operations and methods to use and why

Multiplication and division

- Recalls multiplication and division facts for multiplication tables up to 12 x 12

Fractions (including decimals)

- Recognises and shows, using diagrams, families of common equivalent fractions
- Counts up and down in hundredths; recognises that hundredths arise when dividing an object by 100 and dividing tenths by 10
- Rounds decimals with one decimal place to the nearest whole number
- Solves simple measure and money problems involving fractions and decimals to two decimal places

Measurement

- Converts between different units of measure e.g. kilometre to metre; hour to minute

Geometry: properties of shape

- Compares and classifies geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
- Identifies lines of symmetry in two dimensional shapes presented in different orientations

Geometry: position and direction

- Plots specified points and draws sides to complete a given polygon

Statistics

- Solves comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs



Year 5

End of Year Expectations

Mathematics

Number and place value

- Reads, writes, orders and compares numbers to at least 1,000,000 and determines the value of each digit
- Interprets negative numbers in context, counts forwards and backwards with positive and negative whole numbers including through zero

Addition and subtraction

- Adds and subtracts -whole numbers with more than four digits, including using formal written methods (column addition and subtraction) -Numbers mentally with increasingly large numbers (e.g. $12,462 - 2,300 = 10,162$)

Multiplication and division

- Identifies multiples and factors including finding all factor pairs of a number and common factors of two numbers
- Solves problems involving multiplication and division including using a knowledge of factors and multiples, squares and cubes
- Solves problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates

Fractions (including decimals)

- Compares and orders fractions whose denominators are all multiples of the same number
- Reads and writes decimal numbers as fractions e.g. $0.71 = 71/100$
- Reads, writes, orders and compares numbers with up to three decimal places
- Solves problems which require knowing percentage and decimal equivalents of $1/2$, $1/4$, $1/5$, $2/5$, $4/5$ and those fractions with a denominator of a multiple of 10 or 25

Measurement

- Converts between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)
- Measures and calculates the perimeter of composite rectilinear shapes in centimetres and metres
- Calculates and compares the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2)

Geometry: Properties of shape

- Draws given angles and measures them in degrees ($^\circ$)
- Distinguishes between regular and irregular polygons based on reasoning about equal sides and angles

Statistics

- Completes, reads and interprets information in tables, including timetables



Year 6

End of Year Expectations

Mathematics

Place value

- Rounds any whole number to a required degree of accuracy
- Uses negative numbers in context and calculates intervals across zero

Calculation

- Multiplies multi-digit numbers up to four digits by a two-digit whole number using the formal written method of long multiplication
- 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
- Solves addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why
- Uses estimation to check answers to calculations and determines, in the context of a problem, an appropriate degree of accuracy

Fractions

- Uses written division methods in cases where the answer has up to two decimal places
- Solves problems which require answers to be rounded to specified degrees of accuracy
- Recalls and uses equivalences between simple fractions, decimals and percentages, including in different contexts

Ratio and proportion

- Solves problems involving the calculation of percentages e.g. of measures and calculations such as 15 per cent of 360, and the use of percentages for comparison
- Solves problems involving unequal sharing and grouping using knowledge

Algebra

- Uses simple formulae

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

Properties of shape

- Compares and classifies geometric shapes based on their properties and sizes and finds unknown angles in any triangles, quadrilaterals and regular polygons

Position and direction

- Draws and translates simple shapes on the coordinate plane and reflects them in the axis Interprets pie charts and line graphs and uses these to solve problems

Statistics

- Calculates and interprets the mean as an average