Subject Content and Endpoints - Subject

## Early Years

## Number

Have a deep understanding of number to 10 , including the composition of each number.
Subitise (recognise quantities without counting) up to 5 .
Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5
(including subtraction facts) and some number bonds to 10 , including double facts.

## Numerical Patterns

Verbally count beyond 20, recognising the pattern of the counting system.
Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.
Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

## Shape, Space and Measures

There are no early learning goals that directly relate to shape, space and measure objectives. However, children will have experienced rich opportunities to develop their spatial reasoning skills in shape, space and measure.

## Key Stage 1

## Key Stage 1 pupils age-related expectations

Read scales in divisions of ones, twos, fives and tens
Partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus
Add and subtract any two 2-digit numbers using an efficient strategy, explaining their method verbally, in pictures or using apparatus
Recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20
Recall multiplication and division facts for 2,5 and 10 and use them to solve simple problems Identify fractions of a number or shape, and know that all parts must be equal parts of the whole Use different coins to make the same amount
Read the time on a clock to the nearest 15 minutes
Name and describe properties of 2D and 3D shapes, including number of sides, vertices, edges, faces and lines of symmetry

## Key Stage 2

## Number and Place Value

- Read, write, order and compare numbers up to 10,000,000 and determine the
- value of each digit
- Round any whole number accurately
- Use negative numbers in context, and calculate intervals across zero


## Addition, Subtraction, Multiplication and Division

- Solve number and practical problems that involve all of the above
- Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- Compare and order fractions
- Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
- Multiply simple pairs of proper fractions
- Divide proper fractions by whole numbers
- Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction
- Identify the value of each digit in numbers given to three decimal places, and
- multiply and divide numbers by 10,100 and 1000
- Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
- Solve problems involving the calculation of percentages
- 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

- Use simple formulae
- Generate and describe linear number sequences
- Express missing number problems algebraically
- Find pairs of numbers that satisfy an equation with two unknowns
- Enumerate possibilities of combinations of two variables


## Measurement

- Solve problems involving the calculation and conversion of units of measure, up to three decimal places
- Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa
- Convert between miles and kilometres
- Recognise that shapes with the same areas can have different perimeters and vice versa
- Recognise when it is possible to use formulae for area and volume of shapes.
- Calculate the area of parallelograms and triangles
- Calculate, estimate and compare the volume of cubes and cuboids using standard units, including cubic centimetres and cubic metres


## Geometry

- Draw 2D shapes using given dimensions and angles
- Recognise, describe and build simple 3D shapes, including making nets
- Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
- Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
- Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
- Describe positions on the full coordinate grid (all four quadrants)
- Draw and translate simple shapes on the coordinate plane, and reflect them on the axes


## Statistics

- Interpret and construct pie charts and line graphs and use these to solve problems
- Calculate and interpret the mean as an average

