

# MATHEMATICS YEAR 2

## NUMBER

### NUMBER – NUMBER AND PLACE VALUE

Pupils will be taught to:

- ❖ count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward
- ❖ recognise the place value of each digit in a two-digit number (tens, ones)
- ❖ identify, represent and estimate numbers using different representations, including the number line
- ❖ compare and order numbers from 0 up to 100; use <, > and = signs
- ❖ read and write numbers to at least 100 in numerals and in words
- ❖ use place value and number facts to solve problems.

### NUMBER – ADDITION AND SUBTRACTION

Pupils will be taught to:

- ❖ solve problems with addition and subtraction:
  - using concrete objects and pictorial representations, including those involving numbers, quantities and measures
  - applying their increasing knowledge of mental and written methods
- ❖ recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
- ❖ 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
- ❖ show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
- ❖ recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

### NUMBER – MULTIPLICATION AND DIVISION

Pupils will be taught to:

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

### NUMBER – FRACTIONS

Pupils will be taught to:

- ❖ recognise, 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
- ❖ write simple fractions for example,  $\frac{1}{2}$  of 6 = 3 and recognise the equivalence of  $\frac{2}{4}$  and  $\frac{1}{2}$ .

## MEASUREMENT

Pupils will be taught to:

- ❖ choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ( $^{\circ}$ C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels
- ❖ compare and order lengths, mass, volume/capacity and record the results using >, < and =
- ❖ 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
- ❖ solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
- ❖ compare and sequence intervals of time
- ❖ 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
- ❖ know the number of minutes in an hour and the number of hours in a day.

## GEOMETRY

### GEOMETRY – PROPERTIES OF SHAPES

Pupils will be taught to:

- ❖ identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line
- ❖ identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces
- ❖ identify 2-D shapes on the surface of 3-D shapes [for example, a circle on a cylinder and a triangle on a pyramid]
- ❖ compare and sort common 2-D and 3-D shapes and everyday objects.

## GEOMETRY – POSITION AND DIRECTION

Pupils will be taught to:

- ❖ order and arrange combinations of mathematical objects in patterns and sequences
- ❖ 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).

## STATISTICS

Pupils will be taught to:

- ❖ interpret and construct simple pictograms, tally charts, block diagrams and simple tables
- ❖ ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity
- ❖ ask and answer questions about totalling and comparing categorical data.