



# Year Three Mathematics



By the end of Year 3 pupils should be able to:

## Number, Place Value and Rounding

- Count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number
- Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
- Compare and order numbers up to 1000
- Identify, represent and estimate numbers using different representations
- Read and write numbers to at least 1000 in numerals and in words
- Solve number problems and practical problems involving these ideas.

## Addition and Subtraction

Add and subtract numbers mentally, including:

- A three-digit number and ones
- A three-digit number and tens
- A three-digit number and hundreds
  
- Add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction
- Estimate the answer to a calculation and use inverse operations to check answers
- Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

## Multiplication and Division

- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
- Write and calculate 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 efficient written methods
- Solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which  $n$  objects are connected to  $m$  objects

## Fractions

- 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
- Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
- Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators

- Recognise and show, using diagrams, equivalent fractions with small denominators
- Add and subtract fractions with the same denominator within one whole (e.g.  $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ )
- Compare and order unit fractions with the same denominator
- Solve problems that involve all of the above.

### **Measures**

- Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
- Measure the perimeter of simple 2-D shapes
- Add and subtract amounts of money to give change, using both £ and p in practical contexts
- Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
- Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight
- Know the number of seconds in a minute and the number of days in each month, year and leap year
- Compare durations of events, for example to calculate the time taken by particular events or tasks.

### **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 with increasing accuracy
- Recognise angles as a property of shape and associate angles with turning
- Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle
- Identify horizontal, vertical, perpendicular and parallel lines in relation to other lines.

### **Data**

- Interpret and present data using bar charts, pictograms and tables
- Solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables.