## Calculation

## Pupils should be taught to:

- count from 0 in multiples of $4,8,50$ and 100
- find 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 up to 1000 in numerals and in words
- solve number problems and practical problems involving these ideas.


## Fractions and Decimals

## Pupils should be taught to:

- 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 nonunit 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 [for example, $\frac{5}{7} \quad \frac{1}{7} \quad \frac{6}{7}$
- compare and order unit fractions, and fractions with the same denominators
- solve problems that involve fractions and decimals


## Pupils should be taught to

## - 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 formal 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.


## Measures

## Pupils should be taught to:

measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity (//ml)

- measure the perimeter of simple 2-D shapes
- add and subtract amounts of money to give change, using both $£$ and $p$ in practica contexts
- tell and write the time from an analogue clock, including using Roman numerals from 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 and hours
- use vocabulary such as o'clock, 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].


## Pupils should be taught to

- 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 formal written method
solve problems, including missing number problems, involving multiplication and division,
- solve positive integer scaling problems and correspondence problems in which $n$ objects are connected to m objects.


## Geometry

## Pupils should be taught to:

draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them

- recognise angles as a property of shape or a description of a turn
- 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 and vertical lines
- identify pairs of perpendicular and parallel lines in shapes


## Statistics

Pupils should be taught to

- interpret and present data using bar charts, pictograms and table
- solve one-step and two-step questions using information presented in scaled bar harts and pictograms and tables [for example, 'How many more?' and 'How many fewer?']

