# Maths Curriculum in Year 4

## Number – number and place value
- count in multiples of 6, 7, 9, 25 and 1,000
- find 1,000 more or less than a given number
- count backwards through 0 to include negative numbers
- recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s)
- order and compare numbers beyond 1,000
- identify, represent and estimate numbers using different representations
- round any number to the nearest 10, 100 or 1,000
- solve number and practical problems that involve all of the above and with increasingly large positive numbers
- read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value

## Number – addition and subtraction
- add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- estimate and use inverse operations to check answers to a calculation
- solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why

## Number – multiplication and division
- recall multiplication and division facts for multiplication tables up to 12 × 12
- use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers
- recognise and use factor pairs and commutativity in mental calculations
- multiply two-digit and three-digit numbers by a one-digit number using formal written layout
- solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects

## Number – fractions
- recognise and show, using diagrams, families of common equivalent fractions
- count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10
- solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
- add and subtract fractions with the same denominator
- recognise and write decimal equivalents of any number of tenths or hundredths
- recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$
- find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones,
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| **Measure**             | • convert between different units of measure [for example, kilometre to metre; hour to minute]  
                          | • measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres  
                          | • find the area of rectilinear shapes by counting squares  
                          | • estimate, compare and calculate different measures, including money in pounds and pence  
                          | • read, write and convert time between analogue and digital 12- and 24-hour clocks  
                          | • solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days |
| **Geometry – properties of shape** | • compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes  
                          | • identify acute and obtuse angles and compare and order angles up to 2 right angles by size  
                          | • identify lines of symmetry in 2-D shapes presented in different orientations  
                          | • complete a simple symmetric figure with respect to a specific line of symmetry |
| **Geometry – position and direction** | • describe positions on a 2-D grid as coordinates in the first quadrant  
                          | • describe movements between positions as translations of a given unit to the left/right and up/down  
                          | • plot specified points and draw sides to complete a given polygon |
| **Statistics**          | • interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs  
                          | • solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs |