

## Mathematics in Year 4

Below shows the objectives specifically focussed upon in each term, however children will continue to use and apply mathematical skills from previous terms e.g. addition and subtraction in each new context throughout the year.

<b>Autumn</b>	<b>Spring</b>	<b>Summer</b>
<p><b>Number and Place Value</b></p> <ul style="list-style-type: none"> <li>• count in multiples of 6, 7, 9, 25 and 1,000</li> <li>• find 1,000 more or less than a given number</li> <li>• count backwards through 0 to include negative numbers</li> <li>• recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s)</li> <li>• order and compare numbers beyond 1,000</li> <li>• identify, represent and estimate numbers using different representations</li> <li>• round any number to the nearest 10, 100 or 1,000</li> <li>• solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul> <p><b>Addition and Subtraction</b></p> <ul style="list-style-type: none"> <li>• add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</li> </ul>	<p><b>Multiplication and Division</b></p> <ul style="list-style-type: none"> <li>• multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>• 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</li> </ul> <p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>• interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</li> <li>• solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>• recognise and show, using diagrams, families of common equivalent fractions</li> <li>• count up and down in hundredths;</li> </ul>	<p><b>Measurement</b></p> <ul style="list-style-type: none"> <li>• convert between different units of measure [for example, kilometre to metre; hour to minute]</li> <li>• measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> <li>• find the area of rectilinear shapes by counting squares</li> </ul> <p><b>Geometry</b></p> <ul style="list-style-type: none"> <li>• compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li> <li>• identify acute and obtuse angles and compare and order angles up to 2 right angles by size</li> <li>• identify lines of symmetry in 2-D shapes presented in different orientations</li> <li>• complete a simple symmetric figure with respect to a specific line of symmetry</li> <li>• describe positions on a 2-D grid as coordinates in the first quadrant</li> </ul>

- 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

**Multiplication and Division**

- recall multiplication and division facts for multiplication tables up to  $12 \times 12$
- 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

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 hundreds
- recognise and write decimal equivalents to  $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$
- 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, tenths and hundredths
- round decimals with 1 decimal place to the nearest whole number
- compare numbers with the same number of decimal places up to 2 decimal places
- solve simple measure and money problems involving fractions and decimals to 2 decimal places

**Measurement of Money and Time**

- 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

**Number and Place Value- Roman Numerals**

- 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

	<ul style="list-style-type: none"><li>• convert between different units of measure [for example, kilometre to metre; hour to minute]</li><li>• estimate, compare and calculate different measures, including money in pounds and pence</li><li>• read, write and convert time between analogue and digital 12- and 24-hour clocks</li><li>• solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days</li></ul>	
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