

# Year 4 Mathematics Yearly Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Week 1	Place value	Multiplication - pattern finding/counting	Multiplication distributive law - equality	Introduction to Bar and problem solving	Area and perimeter	Enterprise
Week 2	Place value - counting	Multiplication - written method	Problem solving - 2 step	Statistics	Area of rectilinear shapes	Enterprise
Week 3	Written methods addition	Division and mental strategies	Division	2D Symmetry	Measuring - conversion	Interpreting skills - statistics
Week 4	Written methods subtraction	Fractions of number	Fractions - equivalence and number	2D shape and angles	Measuring - volume, capacity, mass	Calculations week
Week 5	calculations Counting Rounding	Counting Negative numbers	Fractions and decimals	Position and translation	Multiplication and division measure	Time tables - calendars
Week 6	Rounding	2 Step word problems fractions	Decimals		Review	Time problems
Week 7	Measuring - estimation	Money - 10 <sup>th</sup> 100 <sup>th</sup>			Money - real life context	Review
	Mental strategies throughout starters	PUMA AUTUMN TEST		PUMA SPRING TEST		PUMA SUMMER TEST

Autumn 1	Programmes of Study Year 4
Week 1	<ul style="list-style-type: none"> <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>Using a variety of representations, including measures, pupils become fluent in the order and place value of numbers beyond 1,000, including counting in 10s and 100s, and maintaining fluency in other multiples through varied and frequent practice.</li> </ul>
Week 2	<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>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>add numbers with up to 4 digits using the formal written methods of columnar addition where appropriate</li> <li>estimate and use inverse operations to check answers to a calculation</li> <li>solve addition two-step problems in contexts, deciding which operations and methods to use and why</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>subtract numbers with up to 4 digits using the formal written methods of columnar subtraction where appropriate</li> <li>estimate and use inverse operations to check answers to a calculation</li> <li>subtraction two-step problems in contexts, deciding which operations and methods to use and why</li> </ul>
Week 5	<p>Pupils continue to practise both mental methods and columnar addition and subtraction with increasingly large numbers to aid fluency</p> <ul style="list-style-type: none"> <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> <li>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</li> </ul>

<b>Week 6</b>	<ul style="list-style-type: none"><li>• round any number to the nearest 10, 100 or 1,000</li></ul>
<b>Week 7</b>	<ul style="list-style-type: none"><li>- estimate, compare and calculate different measures, including money in pounds and pence</li><li>- convert between different units of measure [for example, kilometre to metre; hour to minute]</li></ul>
<b>Week 8</b>	<ul style="list-style-type: none"><li>- Mental Strategies , making links, addition, subtraction</li></ul>
<b>Assessment</b>	PUMA TEST

<b>Autumn 2</b>	<b>Programmes of Study Year 4</b>
<b>Week 1</b>	<ul style="list-style-type: none"> <li>- recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>- use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers</li> </ul>
<b>Week 2</b>	<p>multiply two-digit and three-digit numbers by a one-digit number using formal written layout</p> <p>solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.</p>
<b>Week 3</b>	<p>Pupils continue to practise recalling and using multiplication tables and related division facts to aid fluency.</p> <p>recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></p> <p>use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers</p>
<b>Week 4</b>	<p>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</p> <p>They practise counting using simple fractions and decimals, both forwards and backwards.</p>
<b>Week 5</b>	<p>count backwards through zero to include negative numbers</p>
<b>Week 6</b>	<p>solve simple measure and money problems involving fractions and decimals to two decimal places.</p>
<b>Week 7</b>	<p>find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the</p>

	answer as ones, tenths and hundredths □ round decimals with one decimal place to the nearest whole number □ compare numbers with the same number of decimal places up to two decimal places
<b>Assessment</b>	PUMA TEST

Spring 1	Programmes of Study Year 4
Week 1	<p>solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.</p> <p>recognise and use factor pairs and commutativity in mental calculations</p>
Week 2	<p>Pupils solve two-step problems in contexts, choosing the appropriate operation, working with increasingly harder numbers. This should include correspondence questions such as the numbers of choices of a meal on a menu, or three cakes shared equally between 10 children.</p>
Week 3	<p>recognise and use factor pairs and commutativity in mental calculations</p> <p>To use known multiplication facts to work out division word problems 1 and 2 step</p>
Week 4	<p>recognise and write decimal equivalents of any number of tenths or hundredths</p> <ul style="list-style-type: none"> <li>□ recognise and write decimal equivalents to <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math> and <math>\frac{3}{4}</math></li> </ul> <p>add and subtract fractions with the same denominator</p>
Week 5	<ul style="list-style-type: none"> <li>□ recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>□ 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</li> </ul>
Week 6	<p>round decimals with one decimal place to the nearest whole number</p> <p>compare numbers with the same number of decimal places up to two decimal places</p>
Assessment	PUMA SPRING

Spring 2	Programmes of Study Year 4
Week 1	Introduction to Bar and problem solving
Week 2	Statistics □ solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.
Week 3	2D Symmetry □ 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.
Week 4	2D shape and angles identify acute and obtuse angles and compare and order angles up to two right angles by size compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
Week 5	Position and translation □ 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.
Week 6	
Assessment	SPRING TEST

Summer 1	Programmes of Study Year 4
Week 1	<p>Area Perimeter</p> <p>measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres Perimeter can be expressed algebraically as <math>2(a + b)</math> where a and b are the dimensions in the same unit.</p>
Week 2	<p>Area of rectilinear shapes find the area of rectilinear shapes by counting squares They relate area to arrays and multiplication.</p>
Week 3	<p>Measuring conversion</p> <p>Convert between different units of measure [for example, kilometre to metre; hour to minute]</p>
Week 4	<p>Measuring - volume, capacity, mass Estimation Practical 2 step word problems</p>
Week 5	<p>Multiplication and division measure They use multiplication to convert from larger to smaller units.</p> <p>Pupils practise to become fluent in the formal written method of short multiplication and short division with exact answers (see <u>Mathematics Appendix 1</u>).</p> <p>Pupils write statements about the equality of expressions (for example, use the distributive law <math>39 \times 7 = 30 \times 7 + 9 \times 7</math> and associative law <math>(2 \times 3) \times 4 = 2 \times (3 \times 4)</math>). They combine their knowledge of number facts and rules of arithmetic to solve mental and written calculations for example, <math>2 \times 6 \times 5 = 10 \times 6 = 60</math>.</p> <p>Pupils solve two-step problems in contexts, choosing the appropriate operation, working with increasingly harder numbers. This should include correspondence questions such as the numbers of choices of a meal on a menu, or three cakes shared equally between 10 children.</p>
Week 6	Review

<b>Week 7</b>	Money - real life context Application of 4 operations
<b>Assessment</b>	SUMMER PUMA TEST

<b>Summer 2</b>	<b>Programmes of Study Year 4</b>
<b>Week 1</b>	ENTERPRISE
<b>Week 2</b>	ENTERPRISE
<b>Week 3</b>	Interpreting skills - statistics  interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
<b>Week 4</b>	Calculations review Place value, add, subtract, divide, multiply
<b>Week 5</b>	read, write and convert time between analogue and digital 12- and 24-hour clocks
<b>Week 6</b>	solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
<b>Week 7</b>	REVIEW
<b>Assessment</b>	PUMA TEST