

# Year 6: Maths Curriculum Overview

Please note that not all schemes of work are currently available. PlanBee is working hard to complete the remaining schemes as quickly as possible.



	Autumn Term	Spring Term	Summer Term
Week 1	Decimal Place Value	Working with Numbers	Comparing and Ordering Numbers
Week 2	Choosing Methods	Calculating Fractions and Decimals	Ratio and Proportion
Week 3	Subtraction Strategies	Grids and Coordinates	Fractions, Decimals and Percentages
Week 4	Calculating Compound Shapes	Parts, Percentages and Proportion	Algebra
Week 5	Parts and Proportion	Mental Multiplication and Division	Geometric Shapes
Week 6	Practising Multiplication and Division	Measures	More Multiplication and Division
Week 7	Using Money	Mean, Mode and Median	More About Algebra
Week 8	Mental Methods	Using Subtraction and Addition	Multiplying and Dividing Factors
Week 9	Calculators	Difficult Division	Charts and Graphs
Week 10	Solving Data Problems	Time and Money	Puzzles and Problems

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	Autumn Term	Spring Term	Summer Term
<b>Week 1</b>	<p><b>Decimal Place Value</b></p> <ul style="list-style-type: none"> <li>read, write, order and compare numbers up to 10 000 000 and determine the value of each digit</li> <li>identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places</li> <li>solve problems which require answers to be rounded to specified degrees of accuracy</li> <li>calculate and interpret the mean as an average</li> </ul>	<p><b>Working with Numbers</b></p> <ul style="list-style-type: none"> <li>round any whole number to a required degree of accuracy</li> <li>use negative numbers in context, and calculate intervals across zero</li> <li>solve number and practical problems that involve all of the above</li> <li>identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places</li> </ul>	<p><b>Comparing and Ordering Numbers</b></p> <ul style="list-style-type: none"> <li>read, write, order and compare numbers up to 10 000 000 and determine the value of each digit</li> <li>use negative numbers in context, and calculate intervals across zero</li> <li>solve number and practical problems that involve all of the above</li> </ul>
<b>Week 2</b>	<p><b>Choosing Methods</b></p> <ul style="list-style-type: none"> <li>perform mental calculations, including with mixed operations and large numbers</li> <li>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</li> <li>solve problems involving addition, subtraction, multiplication and division</li> <li>use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</li> </ul>	<p><b>Calculating Fractions and Decimals</b></p> <ul style="list-style-type: none"> <li>use common factors to simplify fractions; use common multiples to express fractions in the same denomination</li> <li>add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions</li> <li>multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, <math>\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}</math>]</li> <li>divide proper fractions by whole numbers [for example, <math>\frac{1}{3} \div 2 = \frac{1}{6}</math>]</li> </ul>	<p><b>Ratio and Proportion</b></p> <ul style="list-style-type: none"> <li>solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts</li> <li>solve problems involving similar shapes where the scale factor is known or can be found</li> <li>solve problems involving unequal sharing and grouping using knowledge of fractions and multiples</li> </ul>
<b>Week 3</b>	<p><b>Subtraction Strategies</b></p> <ul style="list-style-type: none"> <li>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</li> <li>solve problems involving addition, subtraction, multiplication and division</li> <li>use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</li> </ul>	<p><b>Grids and Coordinates</b></p> <ul style="list-style-type: none"> <li>describe positions on the full coordinate grid (all four quadrants)</li> <li>draw and translate simple shapes on the coordinate plane, and reflect them in the axes</li> </ul>	<p><b>Fractions, Decimals and Percentages</b></p> <ul style="list-style-type: none"> <li>associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, <math>\frac{3}{8}</math>]</li> <li>use written division methods in cases where the answer has up to two decimal places</li> <li>recall and use equivalences between simple fractions, decimals and percentages, including in different contexts</li> <li>multiply one-digit numbers with up to two decimal places by whole numbers</li> </ul>
<b>Week 4</b>	<p><b>Calculating Compound Shapes</b></p> <ul style="list-style-type: none"> <li>recognise that shapes with the same areas can have different perimeters and vice versa</li> <li>recognise when it is possible to use formulae for area and volume of shapes</li> <li>calculate the area of parallelograms and triangles</li> </ul>	<p><b>Parts, Percentages and Proportion</b></p> <ul style="list-style-type: none"> <li>use common factors to simplify fractions; use common multiples to express fractions in the same denomination</li> <li>solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison</li> </ul>	<p><b>Algebra</b></p> <ul style="list-style-type: none"> <li>use simple formulae</li> <li>generate and describe linear number sequences</li> <li>express missing number problems algebraically</li> <li>enumerate possibilities of combinations of two variables</li> </ul>
<b>Week 5</b>	<p><b>Parts and Proportion</b></p> <ul style="list-style-type: none"> <li>compare and order fractions, including fractions <math>&gt; 1</math></li> <li>solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts</li> <li>solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison</li> </ul>	<p><b>Mental Multiplication and Division</b></p> <ul style="list-style-type: none"> <li>perform mental calculations, including with mixed operations and large numbers</li> <li>identify common factors, common multiples and prime numbers</li> </ul>	<p><b>Geometric Shapes</b></p> <ul style="list-style-type: none"> <li>draw 2-D shapes using given dimensions and angles</li> <li>recognise, describe and build simple 3-D shapes, including making nets</li> <li>illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius</li> <li>recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles</li> </ul>

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<p><b>Week 6</b></p>	<p><b>Practising Multiplication and Division</b></p> <ul style="list-style-type: none"> <li>multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication</li> <li>divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context</li> <li>solve problems involving addition, subtraction, multiplication and division</li> </ul>	<p><b>Measures</b></p> <ul style="list-style-type: none"> <li>solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate</li> <li>use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places</li> <li>convert between miles and kilometres</li> <li>calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm<sup>3</sup>) and cubic metres (m<sup>3</sup>), and extending to other units [for example, mm<sup>3</sup> and km<sup>3</sup>]</li> </ul>	<p><b>More Multiplication and Division</b></p> <ul style="list-style-type: none"> <li>multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication</li> <li>divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context</li> <li>solve problems involving addition, subtraction, multiplication and division</li> <li>use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</li> </ul>
<p><b>Week 7</b></p>	<p><b>Using Money</b></p> <ul style="list-style-type: none"> <li>solve problems involving addition, subtraction, multiplication and division</li> <li>use negative numbers in context, and calculate intervals across zero</li> <li>multiply one-digit numbers with up to two decimal places by whole numbers</li> <li>use written division methods in cases where the answer has up to two decimal places</li> </ul>	<p><b>Mean, Mode and Median</b></p> <ul style="list-style-type: none"> <li>calculate and interpret the mean as an average</li> </ul>	<p><b>More About Algebra</b></p> <ul style="list-style-type: none"> <li>use simple formulae</li> <li>find pairs of numbers that satisfy an equation with two unknowns</li> <li>enumerate possibilities of combinations of two variables</li> </ul>
<p><b>Week 8</b></p>	<p><b>Mental Methods</b></p> <ul style="list-style-type: none"> <li>perform mental calculations, including with mixed operations and large numbers</li> <li>use their knowledge of the order of operations to carry out calculations involving the four operations</li> </ul>	<p><b>Using Subtraction and Addition</b></p> <ul style="list-style-type: none"> <li>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</li> <li>solve problems involving addition, subtraction, multiplication and division</li> <li>use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</li> </ul>	<p><b>Multiplying and Dividing Factors</b></p> <ul style="list-style-type: none"> <li>multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication</li> <li>identify common factors, common multiples and prime numbers</li> <li>multiply one-digit numbers with up to two decimal places by whole numbers</li> </ul>
<p><b>Week 9</b></p>	<p><b>Calculators</b></p> <ul style="list-style-type: none"> <li>use their knowledge of the order of operations to carry out calculations involving the four operations</li> <li>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</li> </ul>	<p><b>Difficult Division</b></p> <ul style="list-style-type: none"> <li>divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context</li> <li>solve problems involving addition, subtraction, multiplication and division</li> <li>use written division methods in cases where the answer has up to two decimal places</li> </ul>	<p><b>Charts and Graphs</b></p> <ul style="list-style-type: none"> <li>interpret and construct pie charts and line graphs and use these to solve problems</li> </ul>
<p><b>Week 10</b></p>	<p><b>Solving Data Problems</b></p> <ul style="list-style-type: none"> <li>interpret and construct pie charts and line graphs and use these to solve problems</li> </ul>	<p><b>Time and Money</b></p> <ul style="list-style-type: none"> <li>multiply one-digit numbers with up to two decimal places by whole numbers</li> <li>solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate</li> <li>use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places</li> </ul>	<p><b>Puzzles and Problems</b></p> <ul style="list-style-type: none"> <li>solve problems involving addition, subtraction, multiplication and division</li> </ul>