



Maths overview - Year 6

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>> read, write, order and compare numbers up to 10,000,000 and determine the value of each digit</p> <p>> round any whole number to a required degree of accuracy</p> <p>> use negative numbers in context, and calculate intervals across 0</p> <p>> solve number and practical problems that involve all of the above</p> <p>> <i>Explore practically using resources and pictures to see the link with place value.</i></p> <p>> Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why.</p> <p>> Multiply multi-digit number up to 4 digits by a 2-digit number using the formal written method of long multiplication.</p> <p>> Divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division, and interpret</p>	<p>> Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</p> <p>> Compare and order fractions, including fractions > 1</p> <p>> Generate and describe linear number sequences (with fractions)</p> <p>> Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions. Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$]</p> <p>> Divide proper fractions by whole numbers [for example $\frac{1}{3} \div 2 = \frac{1}{6}$]</p> <p>> Recall and use equivalences between simple fractions, decimals and percentages, including in different</p>	<p>> Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison.</p> <p>Recall and use equivalences between simple fractions, decimals and percentages including in different contexts.</p> <p>> Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.</p> <p>> Interpret and construct pie charts and line graphs and use these to solve problems.</p> <p>> Calculate the mean as an average.</p> <p>> Use simple formulae</p> <p>> Generate and describe linear number sequences.</p> <p>> Express missing number problems</p>	<p>> Draw 2-D shapes using given dimensions and angles.</p> <p>> Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons.</p> <p>> Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</p> <p>> Describe positions on the full coordinate grid (all four quadrants).</p> <p>> Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.</p> <p>> Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.</p> <p>> Solve problems</p>	<p>> Recognise that shapes with the same areas can have different perimeters and vice versa.</p> <p>> Recognise when it is possible to use formulae for area and volume of shapes.</p> <p>> Calculate the area of parallelograms and triangles.</p> <p>> Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm^3, m^3 and extending to other units (mm^3, km^3)</p> <p><i>A chance to prepare for the Year 6 SATs – revision of key concepts or areas needing extra practice prior to taking Maths papers</i></p> <p>Post SATs investigation A chance for pupils to take on in-depth investigations or problems using all of the Maths skills from the curriculum.</p>	<p>Revision, Fluency, Deepening</p>



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<p>remainders as whole number remainders, fractions, or by rounding as appropriate for the context.</p> <p>> Divide numbers up to 4 digits by a 2-digit number using the formal written method of short division, interpreting remainders according to the context.</p> <p>> Perform mental calculations, including with mixed operations and large numbers.</p> <p>> Identify common factors, common multiples and prime numbers.</p> <p>> Use their knowledge of the order of operations to carry out calculations involving the four operations.</p> <p>> Solve problems involving addition, subtraction, multiplication and division.</p> <p>> Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy.</p>	<p>contexts.</p> <p>> Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction $\frac{3}{8}$ [for example]</p> <p>> <i>Explore practically using resources and pictures to see the link with addition/subtraction and place value.</i></p> <p>> Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1,000 giving answers up to 3 decimal places.</p> <p>Multiply one-digit numbers with up to 2 decimal places by whole numbers.</p> <p>Use written division methods in cases where the answer has up to 2 decimal places.</p> <p>Solve problems which require answers to be rounded to specified degrees of accuracy.</p>	<p>algebraically.</p> <p>> Find pairs of numbers that satisfy an equation with two unknowns.</p> <p>> Enumerate possibilities of combinations of two variables.</p>	<p>involving similar shapes where the scale factor is known or can be found.</p> <p>> Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.</p> <p>> Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.</p> <p>> 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 3dp.</p> <p>> Convert between miles and kilometres.</p>	<p>Some examples:</p> <p>> £5 enterprise project</p> <p>> Financing, running and managing the creation of a school newspaper</p> <p>> Running a project in which pupils organise, finance and then lead a whole-school summer fete</p>	
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