



Year 6 Maths Curriculum Overview

Across Year 6, the curriculum objectives are initially covered in the half term stated below; in addition to this, activities which consolidate, extend and recap these explicit objectives will be planned throughout the year across the curriculum, where possible. The daily Maths lesson will cover new areas of learning for the children and opportunities to review prior learning will be thread throughout. Arithmetic skills are constantly developed through age-appropriate mental arithmetic reviews, undertaken weekly/fortnightly independently or as a whole class activity. For each of the Year 6 Maths curriculum objectives listed below, there will be planned opportunities for children of all abilities to: demonstrate their developing fluency; undertake reasoning activities; and solve problems of increasing complexity. Within each objective, there will also be increased opportunities for all pupils to work through the CPA (concrete-pictorial-abstract) approach to ensure adequate depth of mathematical understanding.

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer term 2
Number – Place Value	Read, write, (order and compare) numbers up to 10000000 and determine the value of each digit. (Read, write), order and compare numbers up to 10000000 and determine the value of each digit. Round any whole number to a required degree of accuracy. Use negative numbers in context, and calculate intervals across zero. Solve number and practical problems that involve all of the above.					
Number – Addition & Subtraction	Perform mental calculations, including with mixed operations and large numbers. Use their knowledge of the order of operations to carry out calculations involving the four operations. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.					
Number – Multiplication & Division	Identify common factors, common multiples and prime numbers. Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. 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. 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. Perform mental calculations, including with mixed operations and large numbers. Solve problems involving addition, subtraction, multiplication and division. Use their knowledge of the order of operations to carry out calculations involving the four operations.					
Number - Fractions		Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Compare and order fractions, including fractions > 1 . Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. Multiply simple pairs of proper fractions, writing the answer in its simplest form.	Identify the value of each digit in numbers given to three decimal places. Multiply one-digit numbers with up to two decimal places by whole numbers. Use written division methods in cases where the answer has up to two decimal places. Solve problems which require answers to be rounded to specified degrees of accuracy.			

		Divide proper fractions by whole numbers. Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.	Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction. Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.			
Number - Ratio & Proportion				Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. Solve problems involving the calculation of percentages and the use of percentages for comparison. Solve problems involving similar shapes where the scale factor is known or can be found. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.		
Number - Algebra			Use simple formulae. Generate and describe linear number sequences. Express missing number problems algebraically. Find pairs of numbers that satisfy an equation with two unknowns. Enumerate possibilities of combinations of two numbers.			
Measurement				Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit measure to a larger unit, and vice versa, using decimal notation to up to three decimal places. Convert between miles and kilometres. Recognise that shapes with the same areas can have different perimeters and vice versa. Recognise when it is possible to use formulae for area and volume of shapes. Calculate the area of parallelograms and triangles. Calculate, estimate and compare volume of cubes and cuboids using standard units.		
Geometry - Shape					Draw 2D shapes using given dimensions and angles. Compare and classify geometric shapes based on their properties and sizes. Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. Recognise, describe and build simple 3D shapes, including making nets. Find unknown angles in any triangles, quadrilaterals and regular polygons. Recognise angles where they meet at a point, are on a straight line or are vertically opposite, and find missing angles.	
Geometry – Position & Direction		Describe positions on the full coordinate grid (all four quadrants). Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.				

Statistics					Interpret and construct pie charts and line graphs and use these to solve problems.	Calculate and interpret the means as an average.
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