Year Six Mathematics Curriculum KPIs 2025

Autumn 1	Number and Place Value	Read, write, order and compare numbers up to 10,000,000 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 problems involving negative numbers linked to temperature, money and measures, e.g. find the difference between two temperatures when one is negative Solve problems involving place value, including word problems and problems linked to population of countries, money and measure value, including word problems and problems linked to population of countries, money and measure
	Addition and Subtraction	Perform mental calculations, including with mixed operations and large numbers 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 problems involving addition, subtraction, multiplication and division Solve problems including those with more than one step Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy

	Multiplication and Division	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, interpreting 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 Identify common factors, common multiples and prime numbers
Autumn 2	Fractions, Decimals and Percentages	Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions Associate a fraction with division and calculate decimal fraction equivalents Compare and order fractions, including fractions > 1 Divide proper fractions by whole numbers 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 Understands the effect of multiplying and dividing a decimal by 10, 100 and 1000

		Multiply simple pairs of proper fractions, writing the answer in its simplest form Use common factors to simplify fractions; use common multiples to express fractions in the same denomination 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 Recall and use equivalences between simple fractions, decimals and percentages
Spring 1	Statistics	Interpret and construct pie charts and line graphs and use these to solve problems Calculate and interpret the mean as an average
	Ratio and 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 unequal sharing and grouping using knowledge of fractions and multiples Can investigate possible answers to a question where one fraction has an impact on the other

		Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison Solve problems involving similar shapes where the scale factor is known or can be found
	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 Can substitute numbers into unknowns to find a given value where there are limited answers Enumerate possibilities of combinations of two variables Can identify different variables and consider the impact on one when one changes, e.g. list all the combinations of boys and girls in a class where there are twice as many boys as girls and between 25 & 35 children in the class altogether
Spring 2	Measures	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 of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places Convert between miles and kilometres

		Can use the conversion of miles to km to apply to other facts 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, including cubic centimetres (cm3) and cubic metres (m3), extending to other units [for example, mm3 and km3]
Summer 1	Properties of Shape	Draw 2D shapes using given dimensions and angles Recognise, describe and build simple 3D shapes, including making nets Compare and classify geometric shapes based on their properties and sizes. Find unknown angles in any triangles, quadrilaterals, and regular polygons Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius Recognise angles where they meet at a point, are on a straight line, or are vertically opposite. Find missing angles
	Position and 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
Summer 2		

(Ongoing targets included here. Consolidation and preparation for KS3)		