

Mathematics Yearly Plan Year 6

Objectives	Term 1	Term 2	Term 3
Number and place value			
Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit	values		
Round any whole number to a required degree of accuracy			
Use negative numbers in context, and calculate intervals across zero		calculate intervals	
Solve number and practical problems that involve all of the above.	place value/ negative numbers	rounding	Comparing & ordering
Addition, Subtraction, 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, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context	long division		remainders
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			
Use their knowledge of the order of operations to carry out calculations involving the four operations	brackets		
Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why			
Solve problems involving addition, subtraction, multiplication and division		think of a number	
Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.			
Fractions			
Use common factors to simplify fractions; use common multiples to express fractions in the same denomination	common multiples	simplify	
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 [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$]			
Divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$]			
Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]			
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			
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, including in different contexts.			
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 [for example, of measures, and such as 15% of 360] and the use of percentages for comparison		money	
Solve problems involving similar shapes where the scale factor is known or can be found		Scaling by division - mass	
Solve problems involving unequal sharing and grouping using knowledge of			

fractions and multiples.			
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 variables.			
Measurement			
Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate		metric - imperial	
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			
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		area	
Calculate the area of parallelograms and triangles	area of a triangle		right angled triangle
Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm ³) and cubic metres (m ³), and extending to other units [for example, mm ³ and km ³].			
Geometry – properties of shape			
Draw 2-D shapes using given dimensions and angles	draw a triangle		draw a square
Recognise, describe and build simple 3-D shapes, including making nets		nets of cubes	
Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons		missing angles	
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, and find missing angles.	Calculate an angle on straight line		
Geometry – position and direction			
Describe positions on the full coordinate grid (all four quadrants)		rectangles	missing coordinate
Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	translate		
Statistics			
Interpret and construct pie charts and line graphs and use these to solve problems		Pie chart	line graph
Calculate and interpret the mean as an average.	mean/ pie chart		

The green boxes show where these objectives arise in the end of term tests with specific information written inside the boxes.