



Year Six Maths Expectations – October 2023

Place Value	Addition and Subtraction	Multiplication and Division	Fractions	Ratio & Proportion	Measures	Geometry – position & direction
Read, write, order and compare numbers up to 10 000 000	Add & subtract numbers beyond four digits using formal written methods	Multiply four digit numbers by 2 digit numbers using formal long multiplication	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination	Solve problems involving the relative size of 2 quantities where missing values can be found using multiplication & division facts	Solve problems involving the calculation and conversion of measure up to 3 dec places	Describe positions of coordinates in all four quadrants
Determine the value of each digit in numbers up to 10,000,000.	Continue to develop & apply understanding of mental strategies for addition & subtraction – specifically round & adjust & using known place value facts	Divide numbers up to four digits by 2 digits using formal long division & interpret remainders as decimals, fractions or by rounding in context	Compare & order fractions including fractions > 1	Solve problems involving the percentages such as 15% of 360 and the use of percentages for comparison.	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 of up to 3 decimal places inc miles & Km	Draw & translate shapes and reflect shapes in all four quadrants
			Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	Solve problems involving similar shapes where the scale factor is known or can be calculated		Draw & label rectangles, rhombuses & parallelograms from specified coordinates & find missing coordinates using properties of shapes
Partition & recombine numbers to 10,000,000	Add & subtract decimals using form and mental methods from known facts	Use short division & interpret remainders as fractions decimals or round in context	Divide proper fractions by whole numbers (e.g. $\frac{1}{2} \div 2 = \frac{1}{4}$)	Solve problems involving unequal sharing or grouping using knowledge fractions & multiples eg. <i>For every egg you need 300g flour & 3/5 of a class are boys – how many girls are there?</i>	Use formula to calculate area & volume of cuboids & cubes	Statistics
Use negative numbers in context, and calculate intervals across zero.	Reason to solve problems using inverses	Perform mental calculations, including with mixed operations using larger numbers	Multiply simple proper fractions and simplify the answer (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$). Divide proper fractions by whole numbers (e.g. $\frac{1}{2} \div 2 = \frac{1}{4}$)	Reason to problem solve & recognise that shapes with the same perimeter can have different area & vice versa		
Solve number and practical problems that involve negative numbers, find missing numbers including number sequences	Reason to solve problems using bar models to represent & understand problems	Understand and apply the order of the four operations using brackets – BIDMASS & carry out calculations	Identify place value in decimals up to 3 decimal place	Algebra	Calculate area of triangles and parallelograms	Interpret & construct pie charts & line graphs and use these to solve problems
			Multiply & divide by 10, 100 & 1,000 up to 3 decimal places		Use simple formula & find missing numbers, lengths, coordinates & angles	
Reason to place numbers on a number line including negative numbers		Identify common factors, common multiples and primes	Multiply 1-digit numbers with up to 2 decimal places by whole numbers	Generate & describe linear number sequences	Compare and classify 3D and 2D shapes based on their properties : parallel sides, length of sides, type and size of angles, reflective symmetry, regular / irregular polygons; for 3–D shapes: faces, vertices and edges)	Interpret conversion graphs and charts eg. Miles/Km gms/pounds
Round any whole number to a required degree of accuracy		Reason using all four operations to identify, represent and solve problems including for measures & use inverses for missing numbers	Use written division where answer has up to 2 dec places	Express missing numbers algebraically $a = b = b = a$		
		Multiply & divide multiples of 10, 100 & 1,000 including decimals and use of inverses to find missing numbers	Recall & use equivalences to between fractions, decimals & percentages & apply to reason to solve problems	Find pairs of numbers that satisfy an equation with two unknowns	Enumerate possibilities of two unknowns eg. What two numbers can add up to	Name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.
		Use estimation to check answers and determine in context, the accuracy of an answer	Solve problems with fractions working backwards – <i>if $\frac{1}{4}$ of a length is x then calc the whole</i>		Recognise where angles meet at a point are on a straight line or vertically opposite & find missing angles	

