

Year 6

Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions	Measurements	Properties of Shape	Position and Direction
Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit. (Number and Place Value)	Perform mental calculations with mixed operations to carry out calculations involving the four operations. (Addition and Subtraction)	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. (Multiplication and Division)	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. (Fractions)	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. (Measurement)	Draw 2-D shapes using given dimensions and angles. (Properties of Shape)	Describe positions on the full coordinate grid (all four quadrants). (Position and Direction)
Round any whole number to a required degree of accuracy. (Number and Place Value)	Solve multi-step problems in contexts, deciding which operations and methods to use and why e.g. find the change from £20 for three items that cost £1.24, £7.92 and £2.55; a roll of material is 6m long: how much is left when 5 pieces of 1.15m are cut from the roll?; a bottle of drink is 1.5 litres, how many cups of 175ml can be filled from the bottle, and how much drink is left? (Addition and Subtraction)	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. (Multiplication and Division)	Compare and order fractions, including fractions > 1 . (Fractions)	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. (Measurement)	Recognise, describe and build simple 3-D shapes, including making nets. (Properties of Shape)	Draw and translate simple shapes on the coordinate plane, and reflect them in the axis. (Position and Direction)
Use negative numbers in context, and calculate intervals across zero. (Number and Place Value)	Solve problems involving addition and subtraction. (Addition and Subtraction)	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. (Multiplication and Division)	Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. (Fractions)	Convert between miles and kilometres. (Measurement)	Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. (Properties of Shape)	Statistics Interpret and construct pie charts and line graphs and use these to solve problems. (Statistics)
Solve number and practical problems that involve ordering and comparing numbers to 10 000 000, rounding to a required degree of accuracy, using negative numbers and calculating intervals across zero. (Number and Place Value)	Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. (Addition and Subtraction)	Perform mental calculations, including with mixed operations and large numbers. (Multiplication and Division)	Multiply simple pairs of proper fractions, writing the answer in its simplest form e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$. (Fractions)	Recognise that shapes with the same areas can have different perimeters and vice versa. (Measurement)	Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. (Properties of Shape)	Calculate and interpret the mean as an average. (Statistics)
Demonstrate an understanding of place value including decimals e.g. 28.13		Identify common factors, common multiples and prime numbers. (Multiplication and Division)	Divide proper fractions by whole numbers e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$. (Fractions)	Recognise when it is possible to use formulae for area and volume of shapes. (Measurement)	Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find	

= 28 + ? + 0.03. (Number and Place Value)					missing angles. (Properties of Shape)	
		Use his/her knowledge of the order of operations to carry out calculations involving the four operations. (Multiplication and Division)	Associate a fraction with division and calculate decimal fraction equivalents e.g. know that 7 divided by 21 is the same as $\frac{7}{21}$ and that this is equal to $\frac{1}{3}$ and e.g. 0.375 is equivalent to $\frac{3}{8}$. (Fractions)	Calculate the area of parallelograms and triangles. (Measurement)	Algebra Use simple formulae e.g. perimeter of a rectangle or area of a triangle. (Algebra)	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 e.g. find $\frac{7}{9}$ of 108. (Ratio and Proportion)
		Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. (Multiplication and Division)	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. (Fractions)		Generate and describe linear number sequences. (Algebra)	Solve problems involving the calculation of percentages e.g. of measures, and such as 15% of 360 and the use of percentages for comparison. (Ratio and Proportion)
		Solve problems involving addition, subtraction, multiplication and division. (Multiplication and Division)	Multiply one-digit numbers with up to two decimal places by whole numbers. (Fractions)		Express missing number problems algebraically. (Algebra)	Solve problems involving similar shapes where the scale factor is known or can be found. (Ratio and Proportion)
		Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. (Multiplication and Division)	Use written division methods in cases where the answer has up to two decimal places. (Fractions)		Find pairs of numbers that satisfy an equation with two unknowns. (Algebra)	Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. (Ratio and Proportion)
			Solve problems which require answers to be rounded to specified degrees of accuracy. (Fractions)		Find pairs of numbers that satisfy an equation with two unknowns. (Algebra)	
			Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts e.g. one piece of cake that has been cut into 5 equal slices can be expressed as $\frac{1}{5}$ or 0.2 or 20% of the whole cake. (Fractions)		Enumerate possibilities of combinations of two variables. (Algebra)	

