

Group/Class	Objectives	Coverage Notes	Term
Number - Number and Place Value	<ul style="list-style-type: none"> • <u>read, write, order and compare numbers up to 10 000 000 and determine the value of each digit</u> • 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, Multiplication and Division	<ul style="list-style-type: none"> • <u>multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication</u> • <u>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</u> • <u>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</u> • <u>perform mental calculations, including with mixed operations and large numbers</u> • identify common factors, common multiples and prime numbers • use their knowledge of the order of operations to carry out calculations involving the four operations • <u>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</u> • <u>solve multi-step problems involving addition, subtraction, multiplication and division</u> • <u>use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</u> 		
Number – Fractions, Decimals and Percentages	<ul style="list-style-type: none"> • use common factors to simplify fractions; use common multiples to express fractions in the same denomination • <u>compare and order fractions, including fractions > 1</u> • <u>add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions</u> • <u>multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$]</u> • <u>divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$]</u> • <u>associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]</u> • <u>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</u> • multiply one-digit numbers with up to two decimal places by whole numbers • <u>use written division methods in cases where the answer has up to two decimal places</u> • <u>solve problems which require answers to be rounded to specified degrees of accuracy</u> • <u>recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</u> 		
Measurement	<ul style="list-style-type: none"> • <u>solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate</u> • <u>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</u> • 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, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³]. 		
Geometry – Properties of Shape	<ul style="list-style-type: none"> • draw 2-D shapes using given dimensions and angles • recognise, describe and build simple 3-D shapes, including making nets • <u>compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons</u> • 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 <u>use mathematical reasoning to find missing angles.</u> 		
Geometry – Position and Direction	<ul style="list-style-type: none"> • describe positions on the full coordinate grid (all four quadrants) • <u>draw and translate simple shapes on the coordinate plane, and reflect them in the axes.</u> 		
Statistics	<ul style="list-style-type: none"> • <u>interpret and construct pie charts and line graphs and use these to solve problems</u> • <u>calculate and interpret the mean as an average.</u> 		
Ratio and Proportion	<ul style="list-style-type: none"> • solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts • <u>solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison</u> • 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. 		
Algebra	<ul style="list-style-type: none"> • <u>use simple formulae</u> • generate and describe linear number sequences • <u>express missing number problems algebraically</u> • find pairs of numbers that satisfy an equation with two unknowns • enumerate possibilities of combinations of two variables. 		

