Understanding Numbers and the Number System, Steps 31 to 33					
Strand	**Statement**	**31**	**32**	**33**	**+**
Number, place value and rounding	Use **negative numbers** in context and calculate intervals across zero				
	Read, write, order and compare numbers up to 10, 000 000 and determine the value of each digit				
	Round any whole number to as required degree of accuracy				
	Solve **number and practical problems** that involve all of the above				
Addition and Subtraction	Solve addition and subtraction **multi-step problems** in contexts, deciding which operations and methods to use and why				
	Perform mental calculations including with **mixed operations** and large numbers				
	Use knowledge of the order of operations to carry out calculations involving **four operations**				
	Use **estimation** to check answers to calculations and determine, in the context of a problem, levels of accuracy.				
	Solve problems involving addition, subtraction, multiplication and division				
Multiplication and Division-	Identify **common factor, common multiples and prime numbers.**				
	Perform **mental** calculations including mixed operations and large numbers				
	Multiply multi-digit numbers up to 4-digits by a 2-digit whole number using the formal written method of **long multiplication**				
	Divide numbers up to 4-digits by a 2-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.				
	Divide numbers up to 4 digit by a 2 digit number using formal written methods of **short division**, where appropriate, interpret remainders according to the context				
	Use knowledge of the order of operations to carry out calculations involving **four operations**				
	Solve problems involving addition, subtraction, multiplication and division				

Fractions, decimals and percentages	Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8)				
	Identify the **value of each digit to three decimal places** and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places				
	Compare and order fractions including fractions >1 Use common factors to simplify fractions; use common multiples to express fractions in the same denomination				
	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 (e.g. ¼ x ½ =1/8)				
	Multiply 1-digit numbers with up to two decimal places by whole numbers				
	Divide proper fractions by whole numbers (e.g. 1/3 ÷ 2= 1/6) Use written division methods in cases where the answer has up to two decimal places				
	Recall and use **equivalences** between simple fractions, decimals & percentages including different contexts				
	Solve problems involving the **calculation of percentages** of whole numbers or measures such as 15% OF 360 and the use of percentages for comparison				
	Solve problems which require answers to be rounded to specified degrees of accuracy.				
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 the **calculation of percentages** of whole numbers or measures such as 15% of 360 and the use of percentages for comparison				
	Solve problem 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	Express missing number problems algebraically				
	Use simple formulae				
	Generate and describe linear number sequences				
	Find pairs of numbers that satisfy an equation with two unknown				
	Enumerate all possibilities of combinations of two variables				

Shape, Space and Measures, Steps 31 to 33

Strand	Statement	31	32	33	+
Measurement	Solve problems involving the calculations and conversion of units of measure, using decimal notation 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 o a larger unit, and vice versa, using decimal notation to three decimal places.				
	Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm³ and m³, and extending to other units such as mm³ and km³				
	Convert between miles and km				
	Recognise when it is possible to use the formulae for area and volume of shapes				
	Perimeter Recognise that shapes with the same areas can have different **perimeters** and vice versa				
	Area Calculate the **area** of parallelograms and triangles. Recognise when it is possible to use the formulae for **area** and volume of shapes				
Geometry: 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 and find unknown angels in any triangles, quadrilaterals and regular polygons				
	Recognise **angles** where they meet of a point, are on a straight line, or are vertically opposite and finding missing angles				
	Illustrate and name parts of **circles**, including radius, diameter and circumference and know that the diameter is twice the radius				
Geometry: Position, direction and motion	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				
Statistics	Interpret and construct: **pie charts, line graphs** and use to solve problems				
	Calculate and interpret the **mean** as an average				