Year 6		Step 19	Step 20
Problem Solving		**- I can solve number problems and practical problems involving a range of ideas** **- I can solve number problems and practical problems involving negative numbers** **- I can solve problems which require the knowing percentage and decimal equivalents of 1/2, '/4, 1/5, 2/5, 4/5 and those with a denominator of a multiple of 10 or 25.** **- I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.** **- I can use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.** **- I can use written division methods in cases where the answer has up to 2 decimal places solve problems which require answers to be rounded to specified degrees of accuracy.** **- I can use my knowledge of the order of operations to carry out calculations involving the 4 operations.** **- I can solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate.** **- I can solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts.** **- I can solve problems involving similar shapes where the scale factor is known or can be found.** **- I can solve problems involving the calculation of percentages (for example, of measures such as 15% of 360) and the use of percentages for comparison** **- I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.**	
Number	**Place Value**	- I can read, write, order and compare numbers up to 10 000 000 and determine the value of each digit - I can round any number up to 10 000 000 to the nearest 10, 100 and 1000 - I can recognise negative numbers, continue negative number sequences and find missing numbers	- I can read, write, order and compare numbers up to 1,000,000 and determine the value of each digit - I can round any number up to 10 000 000 to the nearest 10 000, 100 000 and 1 000 000 - I can put negative numbers onto a number line I am beginning to solve solve sum and difference problems involving negative numbers using concrete resources.
	Counting		
	Fractions and Decimals	- I can add and subtract mixed numbers with the same denominator - I can multiply mixed numbers by a whole number - I can partition decimal numbers up to 3 decimal places and state the value of each digit. - I can associate a fraction with division by converting an integer and fraction to an improper fraction. - I can recall and use equivalences between simple fractions and decimals I can place fractions > 1 on a numberline	- I can compare and order mixed numbers whose denominators are multiplies of the same number - I can add and subtract fractions with the different denominators using the concept of equivalent fractions - I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams - I can multiply simple pairs of proper fractions. - I can divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places. - I am beginning to divide proper fractions by whole numbers - I can read and write -decimal numbers as fractions and vice versa E.g. 73/100 = 0.73 - I can divide proper fractions by whole numbers using a visual representation I can use a numberline to compare fractions > 1. I am beginning to convert numbers < 1 to 2 d.p. to a proper fraction. (E.g. 0.26 = 26/100 = 13/50) - I can recall and use equivalences between simple fractions, decimals and percentages
Calculating	**Addition and Subtraction**	- I can consider whether to solve addition and subtraction calculations mentally or using a written method. I can explore order of operations (e.g. BODMAS) using brackets. - I can use rounding to check answers to calculations	- Add and subtract numbers mentally with increasingly large numbers. - I can use rounding to check. answers to calculations and determine, in the context of a problem and levels of accuracy
	Multiplication and Division	-I can userecall of multiplication and division facts up to 12 x 12 to solve other multiplication and division calculations mentally. - I can use knowledge of times tables and place value to multiply 1s.t by 1s e.g. 0.6 x 4 = 2.4. - I can divide 3-digit numbers by 2-digit numbers using the formal method without remainders I can multiply 3-digit numbers x 2-digit numbers using long multiplication	- I can multiply larger numbers (<10,000) by single-digit numbers using short multiplication. - Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 1 and 0; dividing by 1; multiplying together three numbers. - I know multiples, factors, square numbers prime numbers - I can use brackets in simple calculations

			- I can use knowledge of times tables and place value to multiply TU.t by U e.g. 0.06 x 4 = 0.24. - I can divide 4-digit numbers by 2-digit numbers using the formal method with remainders I can multiply 4-digit numbers x 2 digit numbers using long multiplication. - I can divide ThHT1s by 1s where the remainder is recorded as a fraction.
Geometry	**Properties of shape**	- I can draw 2d shapes using dimensions and angles - I can compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes - I can illustrate and name parts of circles, including radius, diameter and circumference - I can identify acute and obtuse angles and compare and order angles by size	- I can recognise, describe and build simple 3-D shapes, including making nets. - I can compare and classify geometric shapes, including any quadrilaterals, regular polygons and triangles, based on their properties and sizes - I know that the diameter is twice the radius. - I know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles (and right angles) I can use conventional markings for lines and angles in geometrical drawings and sketches.
	Position and direction	-	
Measurement		I can use, read, write and convert between standard units, converting measurements of length and mass, from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 decimal places. - I can convert between miles and kilometres. - I can recognise that shapes with the same areas can have different perimeters and vice versa. - I can calculate the area of triangles	- I can use, read, write and convert between standard units, converting measurements of volume from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 decimal places. - I can calculate volume of cubes and cuboids using standard units, - I can calculate the area of parallelograms
Statistics		I can compare a set of data on a table with its representation on a pie-chart.	- I can interpret and present discrete and continuous data using appropriate graphical methods, including bar charts line graphs and pie charts - I can calculate the mean
Algebra		I can interpret problems using simple formulae. I can continue simple linear number sequences. I can express generalisations of a linear number sequence in words.	- I can use simple formulae to calculate answers - I can use inverses in number problems (e.g. I think of a number, double it and add five, the answer is 35. What is the original number) I can find pairs of numbers that satisfy an equation with 2 unknowns (E.g. a + b = 20) I can predict the nth term in a linear sequence. I can write equivalent expressions in algebraic form.
Ratio and Proportion		I can find simple percentages of quantities (e.g.10%, 25%, 50% and 75%) of quantities I can use concrete materials to solve simple ratio problems. I understand the relationship between common % (E.g. 25% and 50% or 10% and 5%)	- I can understand simple ratio and can solve problems involving direct proportion by scaling up/down. - I can find percentages (e.g. 30%, 60%) of quantities (multiples of 10) . I can use ratio tables or double numberline to solve unknowns in simple ratio problems. I can represent a ratio as a:b and read this as for every ‘a’ there is a ‘b’.