

Year 4/5		Step 15	Step 16
<b>Problem Solving</b>		<ul style="list-style-type: none"> <li>- I can solve number and practical problems using all of my number skills and with increasingly large positive numbers.</li> <li>- I can solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.</li> <li>- I can solve simple measure and money problems involving fractions and decimals to two decimal places.</li> <li>- I can solve addition and subtraction two-step problems in contexts, deciding which operations to use and why.</li> <li>- I can solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.</li> <li>- I can solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li> </ul> <ul style="list-style-type: none"> <li>- I can solve number and practical problems using all of my number skills.</li> <li>- I can solve problems involving number up to three d.p.</li> <li>- I can solve problems using multiplication and division and a combination of these including understanding the equals sign.</li> <li>- I can solve problems involving multiplication and division including scaling by simple fractions and problems involving simple ratios.</li> <li>- I can solve problems which require knowing percentage and decimal equivalents of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{5}</math>, <math>\frac{2}{5}</math>, <math>\frac{4}{5}</math> and those with a denominator of a multiple of 10 or 25.</li> <li>- I can solve problems using multiplication and division using my knowledge of factors and multiples square and cubes.</li> <li>- Solve problems involving multiplying and adding, including integer scaling problems</li> <li>- I can solve problems involving converting between units of time.</li> <li>- I can use all four operations to solve problems including measure (e.g. length, mass, volume, money) using decimal notation including scaling.</li> </ul>	
<b>Number</b>	<b>Place Value</b>	<ul style="list-style-type: none"> <li>- I can round any number to the nearest 1000 and 100 and 10.</li> <li>- I can read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.</li> </ul>	<ul style="list-style-type: none"> <li>- I can read, write and order numbers to at least 10 000 and determine the value of each digit.</li> <li>- I can round any 5 digit number to the nearest 10, 100, 1000.</li> <li>- I can read Roman numerals to 500 (I – D).</li> <li>- I can read, write, order and compare numbers with 1 d.p.</li> <li>I can find complements for 1 with tenths (1 d.p.)</li> <li>I can add and subtract 0.1 mentally to other numbers to 1 d.p.</li> </ul>
	<b>Counting</b>	<ul style="list-style-type: none"> <li>- I can count fluently in multiples of 6, 7, 9, 25 and 1000.</li> <li>- I can count backwards through zero to include negative numbers.</li> </ul>	<ul style="list-style-type: none"> <li>- I can count forwards and backwards in 10 000 from any given number up to 1 000 000.</li> <li>- I can count forwards and backwards through 0 including negative numbers.</li> </ul>
	<b>Fractions and Decimals</b>	<ul style="list-style-type: none"> <li>- I can use factors and multiples to recognise equivalent fractions and simplify where appropriate (e.g., <math>\frac{6}{9} = \frac{2}{3}</math>).</li> <li>- I can recognise that hundredths arise when dividing tenths by ten.</li> <li>- I can make connections between fractions of a length, of a shape and as a representation of one whole or set of quantities.</li> <li>- I can fluently add or subtract fractions with the same denominator.</li> <li>- I can recognise and write the decimal equivalents to any number of tenths or hundredths, as well as <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math>, <math>\frac{3}{4}</math>.</li> <li>- I can round decimals with one decimal place to the nearest whole number.</li> </ul>	<ul style="list-style-type: none"> <li>I can compare and order fractions whose denominators are the same using concrete materials and visual representations.</li> <li>I can find equivalent fractions for <math>\frac{a}{x}</math> by multiplying the numerator and denominator by the same multiple.</li> <li>- I can understand mixed numbers and position them on a number line</li> </ul> <ul style="list-style-type: none"> <li>- I can recognise the percent symbol (%) and understand percent means number of parts per hundred</li> <li>I can simplify fractions &lt; 1 by dividing the numerator and denominator by the highest common factor.</li> </ul>
<b>Calculating</b>	<b>Addition and Subtraction</b>	<ul style="list-style-type: none"> <li>- I can estimate the answer to a calculation and say whether my answer is likely.</li> <li>- I can add and subtract numbers with up to 4 digits using formal written methods of columnar addition and subtraction where appropriate with regrouping required once.</li> </ul>	<ul style="list-style-type: none"> <li>- I can add and subtract numbers with 4 digits using formal written methods of columnar addition and subtraction where appropriate with or without regrouping any number of times.</li> <li>- I can add and subtract mentally a four digit number and multiple of 10, 100 or 1000 or a combination of these (E.g +/- 2300)</li> <li>- I can use rounding to estimate the answer to a calculation.</li> </ul>
	<b>Multiplication and Division</b>	<ul style="list-style-type: none"> <li>- I can recall multiplication and division facts for multiplication tables up to 12 x 12.</li> <li>- I can use my multiplication tables knowledge to calculate mentally with multiples of ten.</li> <li>- I can recognise and use factor pairs for numbers to 50 and commutativity in mental calculations.</li> <li>- I can write statement about the equality of expressions. E.g., <math>37 \times 9 = 30 \times 9 + 7 \times 9</math></li> </ul>	<ul style="list-style-type: none"> <li>- I can find factors for numbers to 50 and beyond.</li> <li>- I can recall and use multiplication and division facts for all tables up to 12 x 12</li> <li>- I can divide 3-digit numbers by a 1-digit number using short division supported with concrete materials with remainders.</li> <li>- I can multiply up to 4 digit numbers by one digit numbers using the formal short multiplication method</li> <li>- I can tell whether a number up to 100 is a prime number and use the vocabulary of prime numbers</li> </ul>

		$(2 \times 3) \times 4 = 2 \times (3 \times 4)$ - I can use the formal written method of short multiplication (3 digit by 1 digit and short division (3 digit $\div$ 1 digit) with exact answers.	- I can recognise square and cube numbers and their notation. I express non-integer answers to division as a remainder.
<b>Geometry</b>	<b>Properties of shape</b>	- I can compare and classify quadrilaterals (for example, parallelogram, trapezium, rhombus) using geometric properties - I can compare and order angles up to two right angles by size by using a protractor to the nearest multiple of 10 - I can recognise line symmetry in a variety of diagrams, including where the line of symmetry does not dissect the original shape. - I can complete a simple symmetric figure with respect to a specific line of symmetry.	- I can identify and use mathematical language to describe properties of 3D shapes. - I can measure given angles using a protractor to the nearest 5° - I can describe mathematical properties of regular and irregular polygons using precise vocabulary.. I understand an angle on a point on a straight line is 180°
	<b>Position and direction</b>	- I can describe positions on a 2-D grid as coordinates in the first quadrant. - I can describe movements between positions as translations of a given unit to the left/right and up/down. - I can plot specified points and draw sides to complete a given polygon. - I can use co-ordinate plotting ICT tools.	I can describe position using co-ordinates on a 2D-grid in the first quadrant after a translation to the left, right, up or down.
<b>Measurement</b>		- I can convert between different units of measure. - I can estimate, compare and calculate different measures, - I can measure and calculate the perimeter of a range of rectilinear polygons in cm and m. - I can find the area of a shape by counting squares. - I can relate this to arrays and multiplication.	- I can convert and use fluently between units of length (mm, cm, m, km). - I can find the perimeter of a rectangle given the length and width. - I know and understand all metric units for measure - I am beginning to estimate volume.
<b>Measurement - Money</b>		- I can use my understanding of decimal notation and place value to record metric measures, including money. - I can estimate, compare and calculate money in pounds and pence.	
<b>Measurement - Time</b>		- I can read, write and convert time between analogue and digital 12- and 24-hour clocks. - I can solve more complex one- step conversion problems in contexts, deciding which operations to use and why.	
<b>Statistics</b>		- I can interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. - I can use a range of scales in my representations. - I am beginning to relate the graphical representation of data to recording change over time. - I can solve comparison, sum and difference problems using information in bar charts, pictograms, tables and other graphs.	I can begin to choose which graphical representation to use with a set of continuous or discrete data. - I am beginning to read and interpret data from time tables. I know the vertical axis is referred to as the y axis and the horizontal axis is referred to as the x axis. I can read data between marked scales on continuous graphs. - I can interpret and present discrete and continuous data using appropriate graphical methods.