

<p><b>Year 4/5</b></p>	<p><b>To be embedded throughout the year:</b></p> <ul style="list-style-type: none"> <li>• Solve number problems up to and over 1000</li> <li>• Read roman numerals to 1000 and recognise years written in roman numerals</li> <li>• Count forwards and backwards in a variety of steps and in powers of 10 for any given number to 1 000 000 (For example: 10/100/1000/10 000/ 100 000)</li> <li>• Secure use of formal written methods for all four operations</li> <li>• Secure understanding of fractions/ decimals</li> <li>• All multiplication facts to 12 x 12</li> <li>• Solve comparison, sum and difference problems using information presented in a graphs (Link to science) for discrete and continuous data</li> </ul>		
	<ul style="list-style-type: none"> <li>• Read, write and compare numbers to 1 000 000 and understand the place value, finding 1000 more/ less Order/ compare numbers over 1000 and to 2dp Read/Write/ Order and compare numbers with up to 3dp</li> <li>• Count in multiples of 6,7,9,25, 1000 and backwards through 0</li> <li>• Add and subtract whole numbers with more than 4 digits, using a formal written method</li> <li>• Add &amp; subtract numbers mentally</li> <li>• Multiply and divide numbers mentally, drawing upon known facts. Multiply and divide whole numbers and those involving decimals by 0,1,10,100,1000</li> </ul>	<ul style="list-style-type: none"> <li>• Interpret negative numbers in contexts, counting forwards and backwards in whole numbers through 0</li> <li>• Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 Count in steps of 1/100 and how <math>1/10 \div 10 = 1/100</math></li> <li>• Round decimals with 2 dp to nearest whole number/ 1dp in context of money problems Solve money problems using fractions and all four operations</li> <li>• Use rounding to check and estimate answers to calculations and determine their accuracy</li> <li>• Compare and classify geometric shapes including quadrilaterals</li> </ul>	<ul style="list-style-type: none"> <li>• Convert between different units of metric measure (km/m, cm/m, cm/mm- g/kg, l/ml)</li> <li>• Convert between metric and imperial units (inches/ pounds/ pints)</li> <li>• Solve problems involving the conversion of units of time Read, Write and convert time between analogue and digital 12 and 24 hr clocks. Read roman numerals from 1 to 100 and that over time the numeral system changed to include 0 and place value Complete, read and interpret information in tables and timetables</li> <li>• Measure and calculate perimeter</li> </ul>

	<ul style="list-style-type: none"> <li>• Multiply up to ThHTU by U/TU moving to a formal written method including long multiplication. Recognise and use square and cube numbers and their notation</li> <li>• Divide ThHTU by a one digit number using formal written method, with correct interpretation of remainders</li> <li>• Multistep problems, choosing correct operation and explain reasoning</li> <li>• Solve problems using all four operations and a combination of these, including understanding '=' (Balancing equations: <math>5 \times 5 = 50/2</math>-use of inverse)</li> <li>• Solve problems involving decimal numbers up to 3 dp</li> </ul>	<p>and triangles, identifying lines of symmetry</p> <ul style="list-style-type: none"> <li>• Distinguish between regular/irregular shapes based on angles and lengths of sides</li> <li>• Draw angles and measure in degrees, compare and order angles up to 180. Identify different types of angles</li> <li>• Identify and draw 3D shapes, know angles are measured in degrees. Estimate and compare obtuse/acute and reflex angles Find missing angles on a line using understanding of shape</li> </ul>	<p>of composite rectilinear shapes in cm/m</p> <ul style="list-style-type: none"> <li>• Calculate and compare the area of squares and rectangles (initially by counting squares), including using standard units (cm<sup>2</sup>, m<sup>2</sup>) and estimate the area of irregular shapes</li> <li>• Identify, describe and represent the position of a shape following a reflection or translation. Revision of coordinates</li> <li>• Estimate volume and capacity</li> </ul>
	<ul style="list-style-type: none"> <li>• Compare and order fractions with same denominator, moving to those whose denominators are multiples of each other</li> <li>• Visual representations of equivalent fractions (including 1/10 and 1/100 - place value) Using non-unit and unit fractions to find quantities of an integer</li> </ul>	<ul style="list-style-type: none"> <li>• Multiply up to ThHTU by U/TU using a formal written method including long multiplication (Multiply 3 numbers together)</li> <li>• Divide ThHTU by a one digit number using formal written method, with correct interpretation of remainders Solving problems with all four</li> </ul>	<ul style="list-style-type: none"> <li>• Solve problems involving multiplication and division including scaling by simple fractions/ratios and percentages</li> <li>• Find missing angles on a line using understanding of shape Use properties of rectangles to</li> </ul>

	<ul style="list-style-type: none"> <li>Recognise mixed numbers and improper fractions and convert from one to the other and write as a mathematical statement (<math>\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1 \frac{1}{5}</math>)</li> <li>Add and subtract fractions with the same denominator and multiples of the same number</li> <li>Recognise % and understand it relates to number of parts per hundred and write % as a fraction with denominator of 100 and as a decimal fraction</li> <li>Identify multiples and factors, finding all common factors of a number and common factors of 2 numbers Establish numbers up to 100 that are prime and recall all prime numbers up to 19 Know and use vocabulary of prime numbers/ factors and composite (non-prime) Solve problems involving multiplication and division problems that require decomposing numbers in to their factors (Use of partitioning to support solving the answer)</li> </ul>	<p><b>operations using brackets</b></p> <ul style="list-style-type: none"> <li>Multiply proper fractions and mixed numbers by whole numbers, supporting by concrete resources/ diagrams</li> <li>Read and write decimal numbers as fractions (<math>0.71 = \frac{71}{100}</math>) Recognise and use <math>\frac{1}{1000}</math> and relate them to <math>\frac{1}{10}</math> and <math>\frac{1}{100}</math> and decimal equivalents Write decimal equivalents of <math>\frac{1}{2}</math> <math>\frac{1}{4}</math> <math>\frac{3}{4}</math> and any number of tenths/hundredths</li> <li>Solve problems which require knowing % and decimal equivalence 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 dominator of 10 or 25 Estimate, compare and calculate different measures (£/p)</li> <li><b>Recognise % and understand it relates to number of parts per hundred and write % as a fraction with denominator of 100 and as a decimal fraction</b></li> </ul>	<p>deduce related facts of length and missing angles Understand multiples of 90o</p> <ul style="list-style-type: none"> <li>Describe positions on a grid as coordinates in the first quadrant Describe movements between positions as translations of a given unit Use and plot coordinates Complete a simple symmetrical figure with respect to a single line of symmetry</li> <li><b>Use of all four operations in a range of different contexts using fractions, decimals and percentages</b></li> </ul>
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