

Y5/6 Long Term Plan

| <b>Autumn<br/>Term Y5</b> | Place Value<br>14 sessions   | Addition and subtraction<br>8 sessions   | Multiplication & division<br>10 sessions  | Fractions<br>17 sessions  |
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|                           | <p>Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals</p> <p>Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit</p> <p>Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000</p> <p>Solve number problems and practical problems involving the above</p> <p>Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000</p> | <p>Add and subtract numbers mentally with increasingly large numbers</p> <p>Add and subtract whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction)</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p> <p>Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000</p> <p>Add and subtract numbers mentally with increasingly large numbers</p> <p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</p> | <p>Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers</p> <p>Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes</p> <p>Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers</p> <p>Establish whether a number up to 100 is prime and recall prime numbers up to 19</p> <p>Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000</p> <p>Multiply and divide numbers mentally, drawing upon known facts</p> | <p>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</p> <p>Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements <math>&gt; 1</math> as a mixed number</p> <p>Compare and order fractions whose denominators are all multiples of the same number</p> <p>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</p> <p>Add and subtract fractions with the same denominator, and denominators that are multiples of the same number</p> |
| <b>Autumn<br/>Term Y6</b> | Place value<br>8 sessions  | Four operations<br>17 sessions   | Fractions<br>16 sessions  | Measure – Converting Units<br>5 sessions  |
|                           | <p>Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit</p> <p>Solve number and practical problems that involve the above</p> <p>Round any whole number to a required degree of accuracy #</p>  | <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p> <p>Solve problems involving addition, subtraction, multiplication and division</p> <p>Use estimation to check answers to calculations and determine, in the context</p>  | <p>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination</p> <p>Compare and order fractions, including fractions <math>&gt; 1</math></p> <p>Add and subtract fractions with different denominators and mixed</p>   | <p>Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate</p> <p>Use, read, write and convert between standard units,</p>   |

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|                       | Use negative numbers in context, and calculate intervals across zero  | <p>of a problem, an appropriate degree of accuracy</p> <p>Identify common factors, common multiples and prime numbers</p> <p>Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication</p> <p>Perform mental calculations, including with mixed operations and large numbers</p> <p>Divide numbers up to four digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context</p> <p>Use their knowledge of the order of operations to carry out calculations involving the four operations</p> | <p>numbers, using the concept of equivalent fractions</p> <p>Identify common factors, common multiples and prime numbers</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p> <p>Solve problems involving addition, subtraction, multiplication and division</p> <p>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams (Y5)</p> <p>Multiply simple pairs of proper fractions, writing the answer in its simplest form</p> <p>Divide proper fractions by whole numbers</p> <p>Associate a fraction with division and calculate decimal fraction equivalents</p> | 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 3 decimal places       |
| <b>Spring Term Y5</b> | Multiplication & Division<br>11 sessions  | Fractions<br>7 sessions  | Decimals and percentages<br>15 sessions  | Statistics<br>5 sessions   |
|                       | <p>Multiply numbers up to four digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2-digit numbers</p> <p>Divide up to four digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context</p> <p>Solve problems involving multiplication and division, including using their knowledge of</p> | <p>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams</p> <p>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 (Y4)</p>   | <p>Read, write, order and compare numbers with up to 3 decimal places</p> <p>Read and write decimal numbers as fractions</p> <p>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</p> <p>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 fractions with a</p>   | <p>Solve comparison, sum and difference problems using information presented in a line graph</p> <p>Complete, read and interpret information in tables, including timetables</p> |

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|                       | <p>factors and multiples, squares and cubes</p>  |  |   | <p>denominator of a multiple of 10 or 25</p> <p>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</p> <p>Solve problems involving numbers up to 3 decimal places</p> <p>Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place</p> <p>Recognise the per cent symbol (%) and understand that per cent relates to “number of parts per 100”, and write percentages as a fraction with denominator 100, and as a decimal fraction</p> <p>Solve problems which require knowing percentage and decimal</p> |  |
| <b>Spring Term Y6</b> | <p>Ration<br/>10 sessions</p>  | <p>Algebra<br/>10 sessions</p>   | <p>Decimals<br/>9 sessions</p>  | <p>Fractions, decimals &amp; percentages<br/>9 sessions</p>  | <p>Statistics<br/>6 sessions</p>   |
|                       | <p>Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts</p> <p>Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples</p> <p>Solve problems involving similar shapes where the scale factor is known or can be found</p> | <p>Use simple formulae</p> <p>Generate and describe linear number sequences</p> <p>Find pairs of numbers that satisfy an equation with two unknowns</p> <p>Enumerate possibilities of combinations of two variables</p> <p>Express missing number problems algebraically</p> | <p>Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places</p> <p>Solve problems which require answers to be rounded to specified degrees of accuracy</p> <p>Solve addition and subtraction multi-step problems in</p> | <p>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination</p> <p>Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction</p> <p>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts</p> <p>Compare and order fractions, including fractions &gt;1</p> <p>Solve problems involving the calculation of percentages and the use of percentages for comparison</p>   | <p>Interpret and construct pie charts and line graphs and use these to solve problems</p> <p>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs (Year 4)</p> <p>Calculate and interpret the mean as an average</p> |

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|  |  |  |  | <p>contexts, deciding which operations and methods to use and why</p> <p>Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places</p> <p>Multiply 1-digit numbers with up to 2 decimal places by whole numbers</p> <p>Use written division methods in cases where the answer has up to 2 decimal places</p> |  |  |  |
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| Summer Term Y5 | Shape<br>10 sessions   | Perimeter and Area<br>6 sessions   | Position & Direction<br>6 sessions   | Negative numbers<br>5 sessions  | Measure -<br>Converting units<br>6 sessions   | Decimals<br>12 sessions  | Volume<br>4 sessions   |
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|                | <p>Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles</p> <p>Draw given angles, and measure them in degrees (°)</p> <p>Identify angles at a point and 1 whole turn (total 360°)</p> | <p>Recognise that shapes with the same areas can have different perimeters and vice versa</p> <p>Recognise when it is possible to use formulae for area and volume of shapes</p> <p>Calculate the area of parallelograms and triangles</p> | <p>Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed</p> | <p>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</p> | <p>Convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre]</p> | <p>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</p> <p>Solve problems involving</p> | <p>Estimate volume [for example, using 1 cm<sup>3</sup> blocks to build cuboids (including cubes)] and capacity</p> <p>Estimate volume and capacity [for</p> |

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|                       | <p>Identify: angles at a point and 1 whole turn (total 360°); angles at a point on a straight line and half a turn (total 180°)</p> <p>Use the properties of rectangles to deduce related facts and find missing lengths and angles</p> <p>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles</p> <p>Identify 3-D shapes, including cubes and other cuboids, from 2-D representations</p> | <p>Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm<sup>3</sup>) and cubic metres (m<sup>3</sup>), and extending to other units</p>                                       |   |   | <p>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints</p> <p>Solve problems involving converting between units of time</p> | <p>number up to 3 decimal places</p> <p>Read, write, order and compare numbers with up to 3 decimal places</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000</p> | <p>example, using water]</p> |
| <b>Summer Term Y6</b> | <p>Shape<br/>11 sessions</p>  | <p>Area, Perimeter &amp; Volume<br/>8 sessions</p>   | <p>Position &amp; Direction<br/>5 sessions</p>  | <p>Themed projects, consolidation, transition &amp; problem solving</p> |   |   |                              |
|                       | <p>Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles</p> <p>Draw given angles, and measure them in degrees (°) (Y5)</p> <p>Know angles are measured in degrees: estimate</p>   | <p>Recognise that shapes with the same areas can have different perimeters and vice versa</p> <p>Recognise when it is possible to use formulae for area and volume of shapes</p> <p>Calculate the area of parallelograms and triangles</p> | <p>Describe positions on the full coordinate grid (all four quadrants)</p> <p>Draw and translate simple shapes on the coordinate plane, and reflect them in the axes</p> <p>Draw and translate simple shapes on the coordinate plane, and</p> |   |   |   |                              |

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|  | <p>and compare acute, obtuse and reflex angles (Y5)</p> <p>Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons</p> <p>Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius</p> <p>Draw 2-D shapes using given dimensions and angles</p> <p>Recognise, describe and build simple 3-D shapes, including making nets</p> | <p>Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm<sup>3</sup>) and cubic metres (m<sup>3</sup>), and extending to other units</p> | <p>reflect them in the axes</p> |  |
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