| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| **Topic (s)**<br><br>**1A**<br>**1B/C** | ALGEBRA 1<br><br>1 4<br>3 4 | NUMBER 1<br><br>2 3<br>1 2 | NUMBER 2<br><br>5 6<br>5 6 | NUMBER 3<br>RATIO 1<br>6 7<br>7 | GEOMETRY 1<br><br>8 9 10<br>8 9 10 | GEOMETRY 2 and<br>STATISTICS 1<br>11 12<br>11 12 |
| **Topic Objectives** | To introduce/develop an understanding of algebra focused around expressions and solving simple equations<br><br><br>Extend: inclusion of brackets when solving equations and writing equations to solve problems | To consolidate and develop core number skills: operations, number types and rounding<br><br><br>Extend: use of index notation and combined operations with negative numbers | To consolidate and develop work with fractions and decimals including conversions and calculations<br><br><br>Extend: mixed number calculations and rational numbers | To consolidate and develop work with percentages and ratio including conversions and calculations<br><br><br>Extend: FDP comparisons and calculations incorporating percentage change | To consolidate and develop work with 2D shape including angle knowledge, understanding of area and perimeter and symmetry.<br><br><br>Extend: angle knowledge through angle facts in parallel lines and congruence | To consolidate and develop work with 3D shape including nets, volume and surface area of cubes and cuboids.<br>To recap and develop statistical representations, and construction/ interpretation of graphs and data collection techniques.<br><br>Extend: algebra in volume and SA calculations and comparing data and justifying decision making. |
| **Acquired Knowledge / Skills** | • Use like and unlike terms<br>• Addition and subtraction of linear expressions<br>• Writing algebraic expressions and apply formulae | • Efficient methods to +, -, x and ÷ whole numbers<br>• Calculations with positive and negative<br>• Factors, multiples and primes<br>• HCF and LCM | • Recap knowledge of place value<br>• Quantities as fractions<br>• Convert and order FDP<br>• Fractions of quantities | • Place value<br>• Ratio, equivalent and fraction to ratio relationship<br>• Conversion FDP<br>• × and ÷ with powers of 10<br>• Introducing %<br>• Percentage of a quantity | • Reflection and rotational symmetry<br>• Perimeter and Area - rectangles and triangles<br>• Types of angle<br>• Transformations and congruence | • Calculate volume and Surface Area of cubes and cuboids<br>• Recap collection of data and grouping<br>• Draw Pictograms, bar charts, vertical line graphs |

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| | • Equations in one variable<br>• Using equations to solve problems | • Rounding appropriately<br>• Estimating to solve problems | • +, -, ÷ and × with decimals and fractions<br>• Rational numbers | • Percentage change<br>• VAT | • Angles at points, in triangles and on lines<br>• Parallel lines | • Conduct a survey and construct a frequency table<br>• Present and interpret compound bar charts |
| **Target Vocabulary** | Equation<br>Expression<br>Term<br>Balance<br>Solve<br>Formulae | Sum<br>Difference<br>Product<br>Quotient<br>Indices<br>Root<br>Square<br>Cube | Denominator<br>Numerator<br>Improper<br>Mixed number<br>Equivalent<br>Place value | Ratio<br>Percentage<br>Share | Cube<br>Cuboid<br>Area<br>Perimeter<br>Parallel<br>Line of symmetry<br>Area<br>Surface area<br>Volume | Frequency<br>Discrete<br>Continuous<br>Grouped data |
| **Assessment** | **Entry Test**<br>Number algebra, geometry, ratio, statistics<br><br>Also refer to **CATS** and **SATS** | **DECEMBER ASSESSMENT 1**<br>4 levels of assessment<br>Crossover questions between each assessment | | **APRIL ASSESSMENT 2**<br>4 levels of assessment<br>Crossover questions between each assessment | | **JULY ASSESSMENT 3**<br>4 levels of assessment<br>Crossover questions between each assessment |

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