## **Mathematics**

known or can be found.



information presented in all types of graph.

► <u>Calculate and interpret the mean as an average.</u>

Key Learning Indicators of Performance: Year 6		
Number – fractions, decimals and percentages	Geometry – properties of shapes	Measurement
<ul> <li>Compare and order fractions, including fractions &gt; 1 (including on a number line).</li> <li>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</li> <li>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</li> <li>Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375 and <sup>3</sup>/<sub>8</sub>).</li> <li>Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.</li> <li>Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. <sup>1</sup>/<sub>4</sub> x <sup>1</sup>/<sub>2</sub> = <sup>1</sup>/<sub>8</sub>).</li> <li>Divide proper fractions by whole numbers (e.g. <sup>1</sup>/<sub>3</sub> ÷ 2 = <sup>1</sup>/<sub>6</sub>).</li> <li>Find simple percentages of amounts.</li> <li>Solve problems involving fractions.</li> <li>Solve problems which require answers to be rounded to specified degrees of accuracy.</li> <li>Solve problems involving the calculation of percentages (e.g. of measures and such as 15% of 260) and the use of percentages for comparison.</li> </ul>	<ul> <li>Compare/classify geometric shapes based on the properties and sizes.</li> <li>Draw 2-D shapes using given dimensions and angles.</li> <li>Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.</li> <li>Recognise, describe and build simple 3-D shapes, including making nets.</li> <li>Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</li> <li>Find unknown angles in any triangles, quadrilaterals, regular polygons.</li> <li>Geometry - position and direction</li> <li>Describe positions on the full coordinate grid (all four quadrants).</li> <li>Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.</li> </ul>	<ul> <li>Use, read and write standard units of length, mass, volume and time using decimal notation to three decimal places.</li> <li>Convert between standard units of length, mass, volume and time using decimal notation to three decimal places.</li> <li>Convert between miles and kilometres.</li> <li>Recognise that shapes with the same areas can have different perimeters and vice versa.</li> <li>Calculate the area of parallelograms and triangles.</li> <li>Recognise when it is possible to use formulae for area and volume of shapes.</li> <li>Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units (e.g. mm³ and km³).</li> <li>Calculate differences in temperature, including those that involved a positive and negative temperature.</li> <li>Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.</li> </ul>
Ratio and proportion	Algebra	Statistics
<ul> <li>Solve problems involving the relative sizes of two quantities where missing values can be found using integer multiplication/division facts.</li> <li>Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.</li> <li>Solve problems involving similar shapes where the scale factor is</li> </ul>	<ul> <li>Use simple formulae.</li> <li>Generate and describe linear number sequences.</li> <li>Express missing number problems algebraically.</li> <li>Find pairs of numbers that satisfy an equation with two unknowns.</li> <li>Enumerate possibilities of combinations of two variables.</li> </ul>	<ul> <li>Continue to complete and interpret information in a variety of sorting diagrams (including sorting properties of numbers and shapes).</li> <li>Interpret and construct pie charts and line graphs and use these to solve problems.</li> <li>Solve comparison, sum and difference problems using</li> </ul>

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