



# Subject Theme Overview

Year 6

Charlton Kings Junior School

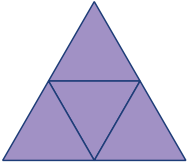
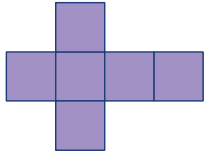
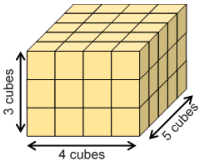
<b>Subject</b>	Maths	<b>Term</b>	Summer
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Area	What I should already be able to do	What I will be able to do by the end of term
<b>Shape</b>	<ul style="list-style-type: none"> <li>Identify 3-D shapes, including cubes and other cuboids, from 2-D representations</li> </ul>	<ul style="list-style-type: none"> <li>Recognise, describe and build simple 3-D shapes, including making <b>nets</b></li> </ul>
<b>Calculating Space: Volume</b>	<ul style="list-style-type: none"> <li>Estimate volume [for example, using 1 cm<sup>3</sup> blocks to build cuboids]</li> </ul>	<ul style="list-style-type: none"> <li>Calculate, estimate and compare <b>volume</b> of cubes and cuboids using standard units, including cm<sup>3</sup> and m<sup>3</sup>, and extending to other units, e.g. mm<sup>3</sup> and km<sup>3</sup></li> <li>Recognise when it is possible to use <b>formulae</b> for volume of shape</li> </ul>
<b>Algebra</b>	<ul style="list-style-type: none"> <li>Solve missing number problems (Year 1 onwards)</li> <li>Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</li> </ul>	<ul style="list-style-type: none"> <li>Enumerate possibilities of combinations of two <b>variables</b></li> <li>Express missing number problems algebraically</li> <li>Find pairs of numbers that satisfy an <b>equation</b> with two unknowns</li> <li>Generate and describe linear number sequences</li> <li>Use simple formulae</li> <li>Convert between miles and kilometres</li> </ul>

Key Vocabulary
<p><b>Net:</b> a precise combination of 2-dimensional shapes that can fold up to form a 3D shape.</p> <p><b>Formula:</b> an equation that links sets of variables (e.g. linking length and width to area)</p> <p><b>Equation:</b> a mathematical statement showing that two statements are equal e.g. <math>2x + 1 = y + 3</math></p> <p><b>Variable:</b> a quantity that can have a range of values, usually shown by a letter such as a, b, x, y etc</p> <p><b>Equivalent fractions</b> – fractions that represent the same amount of the whole</p> <p><b>Simplify Fractions</b> – convert a fraction to its equivalent with the smallest possible denominator (e.g. <math>\frac{4}{10}</math> simplifies to <math>\frac{2}{5}</math>)</p> <p><b>Ratio:</b> a part to part comparison. The ratio of a to b is usually written <b>a : b</b></p>

What I will continue to revise			
<b>Area and Perimeter</b>	<b>Triangles and Angles</b>	<b>Money and Measure</b>	<b>Coordinates</b>
<ul style="list-style-type: none"> <li>Calculate the area of parallelograms and triangles, using formulae if relevant.</li> <li>Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres</li> </ul>	<ul style="list-style-type: none"> <li>Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons</li> <li>Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles</li> </ul>	<ul style="list-style-type: none"> <li>Use, read, write and convert between standard units, using decimal notation up to three decimal places</li> <li>Use all four operations to solve problems involving measure and money, using decimal notation</li> </ul>	<ul style="list-style-type: none"> <li>Describe positions on the full coordinate grid</li> <li>Draw and translate simple shapes on the coordinate plane, and reflect them in the axes</li> </ul>
<b>Fractions, Decimals and Percentages</b>	<b>Ratio</b>	<b>Statistics</b>	
<ul style="list-style-type: none"> <li>Simplify fractions</li> <li>Compare and order fractions, including fractions &gt; 1</li> <li>Add and subtract fractions</li> <li>Multiply proper fractions, and divide proper fractions by whole numbers</li> </ul>	<ul style="list-style-type: none"> <li>Calculate, recall and use equivalences between simple fractions, decimals and percentages</li> <li>Calculate fractions and percentages of numbers and measures.</li> </ul>	<ul style="list-style-type: none"> <li>Interpret and construct pie charts and line graphs and use these to solve problems</li> <li>Calculate and interpret the mean as an average</li> </ul>	

Number facts I must know
<p><b>Addition facts</b> Within 10 and 20 e.g. <math>7 + 8 = 15</math></p> <p><b>Subtraction facts</b> Within 10 and 20 e.g. <math>15 - 7 = 8</math></p> <p><b>Multiplication facts</b> All times tables up to <math>12 \times 12</math></p> <p><b>Division facts</b> All times tables e.g. <math>132 \div 11 = 12</math></p>

Models and images that will be used to support my understanding		
<p><b>Nets</b></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Net for a tetrahedron</p> </div> <div style="text-align: center;">  <p>Net for a cube</p> </div> </div>	<p><b>Volume</b></p> 	<p><b>Missing number problem expressed algebraically</b></p> <div style="border: 1px solid black; width: 60px; height: 30px; margin: 0 auto;"></div> <p style="text-align: center;">- 100 = 1,059</p> <p style="text-align: center;"><b>a</b> - 100 = 1059</p>