

	<b>Algebra</b>	<b>Data and Probability</b>	<b>Numeracy Skills</b>	<b>Shape</b>
<b>Emerging</b>	<ul style="list-style-type: none"> <li>Use and interpret algebraic notation, including: <math>a^b</math> in place of <math>a \times b</math> and <math>2a</math> instead of <math>a + a</math></li> </ul>	<ul style="list-style-type: none"> <li>Calculate mean, mode, median and range for a simple data set</li> </ul>	<ul style="list-style-type: none"> <li>Know how to enter negative numbers into a calculator</li> <li>Know percentage and decimal equivalents for fractions with a denominator of 3, 5, 8 and 10</li> <li>Knows the multiples of the first 12 integers</li> </ul>	<ul style="list-style-type: none"> <li>Measure line segments and angles in geometric figures</li> <li>Can solve angle problems involving triangles, quadrilaterals, angles around a point and on a straight line</li> <li>Can draw nets of 3D shapes</li> <li>Can find the area of squares and rectangles</li> </ul>
<b>Developing</b>	<ul style="list-style-type: none"> <li>Simplifying expressions</li> <li>Substitute numerical values into scientific formulae</li> <li>Generate terms of a sequence from a term-to-term rule</li> <li>Describe the term-to-term rule for a sequence</li> <li>Can solve one step equations</li> </ul>	<ul style="list-style-type: none"> <li>Record describe and analyse the frequency of outcomes of probability experiments using tables</li> <li>Can understand pictograms, bar charts, line graphs and pie charts</li> </ul>	<ul style="list-style-type: none"> <li>Know that <math>a^0 = 1</math></li> <li>Understands and uses language of prime, square and cube numbers</li> <li>Round numbers and measures to an appropriate degree of accuracy as decimal place</li> <li>Apply the four operations, including formal written methods, to integers, decimals and simple fractions (proper and improper), and mixed numbers – all both positive and negative</li> <li>Know the order of operations including powers</li> <li>Identify and work with fractions in ratio problems</li> <li>Understand and use proportion as equality of ratios</li> <li>Can use a calculator</li> </ul>	<ul style="list-style-type: none"> <li>Know how to identify alternate angles</li> <li>Know how to identify corresponding angles</li> <li>Know that circumference = <math>2\pi r = \pi d</math></li> <li>Can find the areas of triangles</li> <li>Interpret plans and elevations of 3D shapes</li> </ul>
<b>Secure</b>	<ul style="list-style-type: none"> <li>Generate terms of a sequence from a position-to-term rule</li> <li>Describe the position-to-term rule for a linear sequence</li> <li>Can solve two step equations</li> </ul>	<ul style="list-style-type: none"> <li>Know to use the midpoints of groups to estimate the mean of a set of grouped data</li> <li>Can solve problems with pictograms, bar charts, line graphs and pie charts</li> </ul>	<ul style="list-style-type: none"> <li>Know how to write a number as a product of its prime factors</li> <li>Rounds to significant figures</li> <li>Convert between terminating decimals and fractions (such as <math>3.5</math> and <math>7/2</math> or <math>0.375</math> or <math>3/8</math>)</li> <li>Interpret standard form <math>A \times 10^n</math>, where <math>1 \leq A &lt; 10</math> and <math>n</math> is an integer</li> <li>Apply ratio skills when working with contextual problems</li> <li>Express a relationship between two quantities as a ratio or a fraction</li> <li>Use compound units (such as speed, or rates of pay)</li> <li>Knows the laws of indices</li> <li>Can solve problems with the lowest common multiple</li> </ul>	<ul style="list-style-type: none"> <li>Know that area of a circle = <math>\pi r^2</math></li> <li>Identify, describe and construct similar shapes, including on coordinate axes, by considering enlargement</li> <li>Understand and use alternate and corresponding angles on parallel lines</li> <li>Can construct triangles using a protractor, compass and ruler</li> <li>Can solve find the surface area of 3D shapes</li> <li>Find the volume of prisms</li> </ul>
<b>Advanced</b>	<ul style="list-style-type: none"> <li>Solve linear equations with the unknown on both sides of the equation</li> <li>Deduce expressions to calculate the <math>n</math>th term of linear sequences</li> </ul>	<ul style="list-style-type: none"> <li>Interpret, analyse and compare the distributions of data sets involving discrete, continuous and grouped data</li> <li>Interpret, analyse and compare the distributions of data sets through appropriate averages (median, mean, mode and modal class) and spread (range, including consideration of outliers)</li> </ul>	<ul style="list-style-type: none"> <li>Change freely between compound units (e.g. speed, rates of pay, prices) in numerical contexts</li> <li>Relate ratios to fractions and to linear functions</li> <li>Interpret fractions and percentages as operators</li> <li>Solve problems with inequalities</li> <li>Can find the lowest common multiple with Venn diagrams</li> </ul>	<ul style="list-style-type: none"> <li>Can solve problems involving simple circle theorems</li> <li>Can find the volume of cylinders and composite shapes</li> </ul>
<b>Excelling</b>	<ul style="list-style-type: none"> <li>Solve linear equations with multiple steps</li> </ul>	<ul style="list-style-type: none"> <li>Apply statistics to describe a population</li> </ul>	<ul style="list-style-type: none"> <li>Solve problems involving percentage change, including original value problems and simple interest</li> <li>Can solve problems with upper and lower bounds</li> </ul>	<ul style="list-style-type: none"> <li>Can understand similarities involving ratio with 2D shapes</li> <li>Can perform simple angle proofs</li> </ul>