

## YEAR 8 OVERVIEW 2020/21 – MATHS

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<b>Year 8</b>	<b>Ratio and scale</b>	<b>Working in the Cartesian plane</b>	<b>Brackets, equations and inequalities</b>	<b>Fractions and percentages</b>	<b>Angles in parallel lines and polygons</b>	<b>The data handling cycle</b>
	<ul style="list-style-type: none"> <li>Understand ratio and its link to multiplication</li> <li>Use ratio notation</li> <li>Reduce ratio to simplest form</li> <li>Calculate the circumference of a circle</li> </ul>	<ul style="list-style-type: none"> <li>Plot and interpret straight line graphs</li> <li>Understand and use the equations of a straight line, including lines parallel to the axes</li> <li>Make links between direct proportion and straight lines of the form <math>y = kx</math></li> <li>Model situations by translating them into expressions, formulae and graphs</li> </ul>	<ul style="list-style-type: none"> <li>Expand and factorise into single brackets</li> <li>Form and use expressions, formulae and identities</li> <li>Form and solve equations and inequalities with and without brackets</li> <li>Distinguish between equations, expressions, formulae and identities</li> </ul>	<ul style="list-style-type: none"> <li>Develop understanding of fractions, decimals and percentages</li> <li>Evaluate percentage increases and decreases</li> <li>Use multipliers to solve percentage problems</li> <li>Express one number as a percentage of another</li> </ul>	<ul style="list-style-type: none"> <li>Review year 7 angle rules</li> <li>Understand and use parallel lines and angles</li> <li>Revisit geometric notation</li> <li>Work out angles in special quadrilaterals</li> <li>Find and use the sum of interior and exterior angles of a polygon</li> <li>Prove simple geometric facts</li> </ul>	<ul style="list-style-type: none"> <li>Understand and use primary and secondary source data</li> <li>Collect data, including using questionnaires</li> <li>Interpret and construct statistical diagrams, including multiple bar charts</li> <li>Construct and interpret pie charts</li> <li>Compare distributions using charts</li> <li>Identify misleading graphs</li> </ul>
	<b>Multiplicative change</b>	<b>Representing data</b>	<b>Sequences</b>	<b>Standard index form</b>	<b>Area of trapezia and circles</b>	<b>Measure of location</b>
	<ul style="list-style-type: none"> <li>Use scale factors, linking ratio, to solve simple direct proportion problems</li> <li>Convert between currencies, including using graphs</li> <li>Draw and interpret scale diagrams and maps</li> </ul>	<ul style="list-style-type: none"> <li>Draw and interpret scatter graphs</li> <li>Understand correlation</li> <li>Draw and use lines of best fit</li> <li>Understand grouped and ungrouped, discrete and continuous data</li> </ul>	<ul style="list-style-type: none"> <li>Generate sequences using more complex rules, e.g. with brackets and squared terms, both in words and algebraically.</li> </ul>	<ul style="list-style-type: none"> <li>Convert between numbers in ordinary and standard form</li> <li>Compare numbers given in standard form</li> <li>Calculate with numbers given in standard form with and without a calculator</li> </ul>	<ul style="list-style-type: none"> <li>Review area of shapes covered in year 7</li> <li>Calculate the area of a trapezium</li> <li>Calculate the area of a circle, and the area of parts of a circle</li> </ul>	<ul style="list-style-type: none"> <li>Revisit the median and mean, including finding the total given the mean</li> <li>Find the mean of grouped data</li> <li>Work out the mode and modal class</li> <li>Choose the appropriate average</li> </ul>

		<ul style="list-style-type: none"> <li>Design and use one and two-way tables.</li> </ul>			<ul style="list-style-type: none"> <li>Use significant figures</li> <li>Calculate the area of compound shapes</li> </ul>	<ul style="list-style-type: none"> <li>Compare distributions using measures</li> </ul>
	<b>Multiplying and dividing fractions</b>	<b>Tables &amp; Probability</b>	<b>Indices</b>	<b>Number sense</b>	<b>Line symmetry and reflection</b>	
	<ul style="list-style-type: none"> <li>Multiply and dividing a fraction by an integer</li> <li>Multiply and divide a fraction by a fraction</li> </ul>	<ul style="list-style-type: none"> <li>List outcomes using sample space diagrams for one and two events</li> <li>Find probabilities using tables and Venn diagrams</li> </ul>	<ul style="list-style-type: none"> <li>Form expressions using indices</li> <li>Understand and use the addition and subtraction rule</li> </ul>	<ul style="list-style-type: none"> <li>Develop mental strategies</li> <li>Convert between metric measures and units</li> <li>Estimation, including rounding to a given number of decimal places</li> <li>Use the order of operations</li> </ul>	<ul style="list-style-type: none"> <li>Recognise line symmetry in polygons and other shapes</li> <li>Reflect shapes in horizontal, vertical and diagonal lines</li> </ul>	

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