

## Year 7 Maths Curriculum

	AUT1	AUT2	SPR1	SPR2	SUM1	SUM2
<b>Topic:</b>	<b>Number</b> <ul style="list-style-type: none"> <li>Basic number and place value</li> <li>Multiplies, factors, roots, powers and primes</li> <li>Types of numbers and BIDMAS</li> <li>Directed numbers</li> <li>Rounding and estimation</li> </ul>	<b>Geometry and Measure</b> <ul style="list-style-type: none"> <li>Properties of 2D and 3D shape (including symmetry)</li> <li>Time</li> <li>Metric conversions</li> <li>Properties of angles</li> <li>Angle reasoning</li> <li>Construction of basic of 2D shapes</li> </ul>	<b>Algebra</b> <ul style="list-style-type: none"> <li>Collect like terms</li> <li>Substitution</li> <li>Expressions with brackets</li> <li>Represent inequalities</li> <li>Sequences and contexts to express equations and inequalities</li> </ul>	<b>Number</b> <ul style="list-style-type: none"> <li>Decimals</li> <li>Fractions</li> <li>FDP</li> <li>Percentage</li> <li>Powers and roots, HCF and LCM</li> </ul>	<b>Algebra</b> <ul style="list-style-type: none"> <li>Coordinates</li> <li>Substitution and formulae</li> <li>Collecting like terms</li> <li>Sequences</li> </ul>	<b>Geometry and Measures</b> <ul style="list-style-type: none"> <li>Area of 2D shapes</li> <li>Tessellation</li> <li>Transformation 2D of shapes including enlargement.</li> </ul>
<b>Knowledge covered:</b>	<p>Students will be able to understand the structure of numbers, develop an explicit understanding of the number system, apply this to the four operations and calculations and will experience number in context. Student will build upon their knowledge of operations in mathematics and apply this to directed numbers and problems. Students will apply BIDMAS with calculations involving indices and roots.</p>	<p>Students will be able to describe, classify and identify polygons, angles and construct them using their knowledge of geometrical properties. They will identify rotational and line symmetry and know internal sums of angles in triangles and quadrilaterals. Students will measure and draw angles and work with angles on a straight line, around a point, parallel lines and create expressions from angle facts.</p>	<p>Students will use learn to write expressions and recognise equivalent expressions. Students will form and solve equations and inequalities by exploring contextual real-life situations represented through equations and inequalities. Students will substitute into key formulae from science and maths and being to learn key formula from the specification.</p>	<p>Students will understand how to manipulate prime decomposition. They will extend their understanding of applying their understanding to non-integer values. Students will find the percentage of an amount; percentage increase &amp; decrease; original amount and use them in context. Students will use the four operations with fractions including mixed numbers and improper fractions.</p>	<p>Students will develop understanding of the cartesian coordinate grid and solve problems in all four quadrants; explore horizontal and vertical lines, midpoints of line segments and problem solve on a coordinate grid.</p>	<p>Students will develop their reasoning with calculating the area of shapes. They will use generalised formulae for finding area of shapes. Students will consider how different transformation act on an object to produce different images as well as enlarge by a positive scale factor.</p>
<b>Online Resources:</b>	<p>Online resources involve:            Student access: Mymaths, Corbett maths, Dr Frost Maths</p>			<p>Online resources involve:            Student access: Mymaths, Corbett maths, Dr Frost Maths</p>		