

**Quality of Education:** Curriculum is planned and sequenced so that new **knowledge** and **skills** build on what has been taught before and towards its clearly defined end points.

<b>SUBJECT: Foundation Algebra</b>		<b>CURRICULUM PROGRESSION PATHWAYS</b>		<b>CL: Miss Z. Bradshaw and Miss A. Hazell</b>	
KS3 (Level 1)	KS4 (Level 2)	KS5 (Level 3)	Further Education and training	Careers	
→		→		→	
<p><b>Algebra</b></p> <p><b>Expressions</b></p> <ul style="list-style-type: none"> <li>Simplify expressions by collecting like terms and form expressions from word problems</li> <li>Substitute positive integers into expressions and formulae</li> </ul> <p><b>Equations/Inequalities</b></p> <ul style="list-style-type: none"> <li>Use function machines to find inputs and outputs</li> <li>Solve simple equations and check the answers</li> <li>Know the difference between an equation and an expression</li> </ul> <p><b>Graphs</b></p> <ul style="list-style-type: none"> <li>Plot coordinates and simple functions</li> </ul> <p><b>Sequences</b></p> <ul style="list-style-type: none"> <li>Find and use term-term rules to extend sequences</li> <li>Recognise arithmetic, geometric and special sequences</li> <li>Find the nth term of simple sequences</li> </ul>	<p><b>Algebra</b></p> <p><b>Expressions</b></p> <ul style="list-style-type: none"> <li>Expand and factorise linear and quadratics expressions</li> <li>Substitute positive and negative integers into expressions with powers and brackets</li> <li>Use index laws to simplify expressions</li> </ul> <p><b>Equations/Inequalities</b></p> <ul style="list-style-type: none"> <li>Solve two-step equations, moving on too equations with unknowns on both sides and equations with brackets and then onto solving quadratics by factorising</li> <li>Use inequality symbols and identify the integers that satisfy a given inequality</li> <li>Solve inequalities and represent their solutions on numbers lines</li> <li>Change the subject of the formula</li> <li>Solving simultaneous equations graphically and by elimination</li> <li>Set up formulae to solve problems</li> </ul> <p><b>Graphs</b></p> <ul style="list-style-type: none"> <li>Use tables of values to plot linear and non linear graphs</li> <li>Find the equation of a straight line from a given graph or from two points</li> <li>Recognise and use properties of parallel line</li> <li>Use and interpret distance-time graphs and rate of change graphs</li> </ul> <p><b>Sequences</b></p> <ul style="list-style-type: none"> <li>Generate sequences from the nth term and find the nth term of an arithmetic sequence</li> </ul>	<p><b>Algebra</b></p> <p><b>Graphical Methods</b></p> <ul style="list-style-type: none"> <li>Linear graphs</li> <li>Graph sketching</li> <li>Solving equations graphically</li> </ul> <p><b>Rates of Change</b></p> <ul style="list-style-type: none"> <li>Equations of straight lines</li> <li>Gradient of curves</li> <li>Optimisation, speed and acceleration</li> </ul> <p><b>Exponentials Functions</b></p> <ul style="list-style-type: none"> <li>Exponential growth</li> <li>Exponential functions</li> <li>Inverse functions</li> <li>Solving exponential equations</li> </ul>	<ul style="list-style-type: none"> <li>Psychology</li> <li>Business-related courses</li> <li>Sports</li> <li>Social sciences</li> <li>Natural science</li> <li>Engineering</li> </ul>	<ul style="list-style-type: none"> <li>Psychology</li> <li>Business-related courses</li> <li>Sports</li> <li>Social sciences</li> <li>Natural science</li> <li>Engineering</li> </ul>	

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