

Subject: Maths	
	<b>Maths Tier 1-2</b>
<b>KS4 target direction</b>	
<p>Advanced</p> <p><i>Students must achieve competence in all objectives in good progress too to be judged as making exceptional progress.</i></p>	<ul style="list-style-type: none"> <li>• Demonstrate fluency in mathematical concepts taught</li> <li>• Reason mathematically – developing an argument, justification or proof using mathematical language</li> <li>• Apply mathematical concepts to a variety of routine and non-routine problems</li> </ul>
<p>Secure</p> <p><i>Students must achieve competence in all statements before being judged secure.</i></p>	<ul style="list-style-type: none"> <li>• Confident use of the four operations +, -, x, ÷</li> <li>• Identify and use factors, multiples, prime and square numbers</li> <li>• Understand negative numbers as position on a number line; use negative numbers in context</li> <li>• Measure and draw lines to the nearest millimetre</li> <li>• Find the perimeter and area of rectangular shapes (by counting squares)</li> <li>• Describe and generate terms of a simple sequence given a rule</li> </ul>
Developing	4 or more objectives met.
Beginning	Fewer than 4 objectives met.

Subject: Maths	
	<b>Maths Tier 3</b>
<b>KS4 target direction</b>	
<p>Advanced</p> <p><i>Students must achieve competence in all objectives in good progress too to be judged as making exceptional progress.</i></p>	<ul style="list-style-type: none"> <li>• Demonstrate fluency in mathematical concepts taught</li> <li>• Reason mathematically – developing an argument, justification or proof using mathematical language</li> <li>• Apply mathematical concepts to a variety of routine and non-routine problems</li> </ul>
<p>Secure</p> <p><i>Students must achieve competence in all statements before being judged secure.</i></p>	<ul style="list-style-type: none"> <li>• Order, add and subtract integers (including negatives)</li> <li>• Calculate perimeters and areas of shapes made from rectangles</li> <li>• Use the order of operations, including brackets.</li> <li>• Recognise and use multiples, factors, primes, squares, square roots, highest common factors and lowest common multiples in simple cases</li> <li>• Generate and describe sequences from patterns or practical contexts</li> <li>• Visualise 3D shapes and deduce some of their properties</li> </ul>
Developing	4 or more objectives met.
Beginning	Fewer than 4 objectives met.

Subject: Maths	
	<b>Maths Tier 4</b>
<b>KS4 target direction</b>	
<p>Advanced</p> <p><i>Students must achieve competence in all objectives in good progress too to be judged as making exceptional progress.</i></p>	<ul style="list-style-type: none"> <li>• Demonstrate fluency in mathematical concepts taught</li> <li>• Reason mathematically – developing an argument, justification or proof using mathematical language</li> <li>• Apply mathematical concepts to a variety of routine and non-routine problems</li> </ul>
<p>Secure</p> <p><i>Students must achieve competence in all statements before being judged secure.</i></p>	<ul style="list-style-type: none"> <li>• Generate and describe terms of a linear sequence using term-to-term and position-to-term rules</li> <li>• Add, subtract, multiply and divide integers; order of operations</li> <li>• Use multiples, factors, common factors, highest common factor, lowest common multiple and primes, including prime factorisation</li> <li>• Use squares, square roots, cubes and cube roots, and index notation</li> <li>• Derive and use formulae for the area of a triangle, parallelogram and trapezium; compound shapes</li> <li>• 3D shape: volume and surface area of cuboids; nets, plans and elevations</li> </ul>
Developing	4 or more objectives met.
Beginning	Fewer than 4 objectives met.

Subject: Maths	
	<b>Maths Tier 5</b>
<b>KS4 target direction</b>	
<p>Advanced</p> <p><i>Students must achieve competence in all objectives in good progress too to be judged as making exceptional progress.</i></p>	<ul style="list-style-type: none"> <li>• Demonstrate fluency in mathematical concepts taught</li> <li>• Reason mathematically – developing an argument, justification or proof using mathematical language</li> <li>• Apply mathematical concepts to a variety of routine and non-routine problems</li> </ul>
<p>Secure</p> <p><i>Students must achieve competence in all statements before being judged secure.</i></p>	<ul style="list-style-type: none"> <li>• Know and use the formulae for the circumference and area of a circle</li> <li>• Calculate the surface area and volume of right prisms.</li> <li>• Use squares, positive and negative square roots, cubes and cube roots; index laws</li> <li>• Use the prime factor decomposition of a number</li> <li>• Use linear expressions to describe the nth term of a sequence</li> <li>• Generate points and plot graphs of linear functions; gradients of a line</li> </ul>
Developing	4 or more objectives met.
Beginning	Fewer than 4 objectives met.

Subject: Maths	
	<b>Maths Tier 6</b>
<b>KS4 target direction</b>	
<p>Advanced</p> <p><i>Students must achieve competence in all objectives in good progress too to be judged as making exceptional progress.</i></p>	<ul style="list-style-type: none"> <li>• Demonstrate fluency in mathematical concepts taught</li> <li>• Reason mathematically – developing an argument, justification or proof using mathematical language</li> <li>• Apply mathematical concepts to a variety of routine and non-routine problems</li> </ul>
<p>Secure</p> <p><i>Students must achieve competence in all statements before being judged secure.</i></p>	<ul style="list-style-type: none"> <li>• Derive and use formulae for lengths of arcs, and areas of sectors</li> <li>• Derive and use formulae for surface area and volume of prisms</li> <li>• Construct and solve linear equations and simple linear inequalities to represent real-life situations or mathematical problems</li> <li>• Understand laws of indices and negative, fractional and zero powers; standard form</li> <li>• Generate points in all four quadrants and plot the graphs of the linear functions; recognise that equations of the form <math>y=mx+c</math> correspond to straight-line graphs; parallel and perpendicular lines</li> <li>• Construct and solve a pair of simultaneous linear equations</li> </ul>
Developing	4 or more objectives met.
Beginning	Fewer than 4 objectives met.

Subject: Maths	
	<b>Maths Tier 7</b>
<b>KS4 target direction</b>	
<p>Advanced</p> <p><i>Students must achieve competence in all objectives in good progress too to be judged as making exceptional progress.</i></p>	<ul style="list-style-type: none"> <li>• Demonstrate fluency in mathematical concepts taught</li> <li>• Reason mathematically – developing an argument, justification or proof using mathematical language</li> <li>• Apply mathematical concepts to a variety of routine and non-routine problems</li> </ul>
<p>Secure</p> <p><i>Students must achieve competence in all statements before being judged secure.</i></p>	<ul style="list-style-type: none"> <li>• Solve simultaneous linear equations</li> <li>• Derive and use formulae for lengths of arcs, and areas of sectors</li> <li>• Understand and extend index laws, including negative and fractional indices</li> <li>• Solve problems involving surds; expand and simplify expressions containing surds</li> <li>• Construct and solve linear inequalities graphically</li> <li>• Derive and use formulae for surface area and volume of a cylinder and the volume of cones, pyramids and spheres</li> </ul>
Developing	4 or more objectives met.
Beginning	Fewer than 4 objectives met.

Subject: Maths	
	<b>Maths Tier 8-9</b>
<b>KS4 target direction</b>	
Advanced  <i>Students must achieve competence in all objectives in good progress too to be judged as making exceptional progress.</i>	<ul style="list-style-type: none"> <li>• Demonstrate fluency in mathematical concepts taught</li> <li>• Reason mathematically – developing an argument, justification or proof using mathematical language</li> <li>• Apply mathematical concepts to a variety of routine and non-routine problems</li> </ul>
Secure  <i>Students must achieve competence in all statements before being judged secure.</i>	<ul style="list-style-type: none"> <li>• Understand and use index notation and index laws, including integer, fractional and negative indices</li> <li>• Manipulate expressions involving surds; rationalise fractions with surds</li> <li>• Solve simultaneous equations</li> <li>• Find the nth term of linear and quadratics sequences</li> <li>• Calculate the area and arc length of a sector of a circle</li> <li>• Calculate the volume and surface area of pyramids and cones; solve problems involving more complex shapes</li> </ul>
Developing	4 or more objectives met.
Beginning	Fewer than 4 objectives met.