

# Yr11: ASK Yourself!

Subject: Maths

Unit: Higher (Whole Year)

	Launching 1-2	Developing 3-4	Progressing 5-6	Mastering 7-9
<b>S</b> kills				
	I need to be able to use the skills of TENSILE in maths.	I use TENSILE skills sometimes in maths.	I can use each of the TENSILE skills confidently.	I can expertly use TENSILE and see how each skill helps me learn.
<b>K</b> nowledge				
<b>Vectors</b>	I can confidently use vector notation to describe a direction and magnitude.	I can confidently add and subtract vectors to find a resultant vector.	I can confidently find a resultant vector involving a combination of scalars and vectors.	I can confidently proof vectors are parallel or co-linear.
<b>Iteration</b>	I can confidently determine when a solution lies between two integers.	I can confidently complete an iteration to find an approximate solution.	I can confidently rearrange an equation to create an iteration formula and find an approximate solution.	I can confidently rearrange an equation to create an iteration formula and find an approximate solution in context.
<b>Algebra in .....</b>	I can confidently substitute values into algebraic expressions found in shapes, data or other context	I can confidently solve algebraic equations found in shapes, data or other context	I can confidently construct and solve equations where algebraic expressions are found in shapes, data or other context	I can confidently use algebraic expressions and equations to prove mathematical statements found in shapes, data or other context
<b>Sine and Cosine Rule</b>	I can confidently find the area of a triangle using trigonometry.	I can confidently find missing angles or lengths using the Sine or Cosine rule.	I can confidently find possible multiple angle solutions using the Sine or Cosine rule.	I can confidently use a combination of trigonometric rules to solve problems.
<b>Equation of a Circle</b>	I can confidently identify the equation of a circle.	I can identify the centre of a circle and its radius from its equation.	I can find the equation of a tangent at a point on a circle.	I can solve simultaneous equation problems involving circles.
<b>Pre-Calculus</b>	I can confidently draw tangents on a curve	I can confidently estimate the gradient of a	I can use the trapezium rule to estimate the area	I can calculate and interpret the gradient of a graph

		curve by using a tangent.	under a curve.	and area under a graph to find solutions in context.
<b>Graph Transformations</b>	I can confidently apply a single graph transformation.	I can confidently apply multiple graph transformations.	I can confidently recognise the effects of a graph transformation from its equation.	I can confidently state the function of a transformed graph.
<b>Proof</b>	I can represent a written problem algebraically.	Prove that shapes are congruent using correct notation for sides and angles.	Provide algebraic proof of statements including those involving exterior angles of a polygon.	Algebraically provide geometric proof including angles and circle theorems.