

# Yr11: ASK Yourself!

Subject: Maths

Unit: Foundation (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>Simplifying Expressions</b>	I can confidently form and simplify expressions where needed.	I can confidently simplify expressions using the laws of indices.	I can confidently simplify expressions using brackets including double brackets.	
<b>Solving equations</b>	I can confidently solve multi step linear equations.	I can confidently form and solve linear equations including those involving fractions and brackets.	I can confidently solve quadratic equations by factorisation.	
<b>Sequences</b>	I can confidently use number patterns to describe sequences.	I can confidently find the nth term of a linear sequence and use it to solve problems.	I can confidently identify a quadratic sequence and use its pattern to solve problems.	
<b>Algebraic Graphs</b>	I can confidently plot graphs of linear and quadratic equations.	I can confidently find the equation of a linear graph using $y=mx+c$ .	I can confidently find solutions to problems using either linear or quadratic graphs.	
<b>Perimeters and areas</b>	I can find the area and perimeter of basic shapes including rectangles, triangles and parallelograms.	I can find the perimeter and area of basic shapes where unit conversion is required e.g. some lengths in mm and some in cm.	I can find the perimeter and area of a compound shape and of a circle.	

<b>Volume and surface area</b>	I can confidently describe the properties of a prism.	I can find the volume and surface area of simple prisms including cylinders.	I can find the volume and surface area of complex prisms and solve problems in context.	
<b>Transformations</b>	I can confidently reflect and rotate a shape.	I can confidently reflect, rotate and translate a shape.	I can confidently describe a single transformation obtained from a combined transformation.	
<b>Pythagoras and Trigonometry</b>	I can confidently state Pythagoras theorem and the trig ratios.	I can confidently solve simple problems using Pythagoras or Trigonometry.	I can confidently use Pythagoras and Trigonometry to solve problems in a real life context.	
<b>Angles</b>	I can confidently calculate the sum of interior angles in a polygon, exterior and interior angles of regular polygons.	I can confidently use the polygon and parallel lines angle rules to solve problems.	I can use a formal proof to show the sum of angles in a triangle and quadrilateral.	
<b>Probability</b>	I can confidently calculate the probability of a single event and represent using a probability scale.	I can confidently calculate probabilities using relative frequency and experimental probability.	I can confidently calculate probabilities of multiple events using tree diagrams.	
<b>Averages</b>	I can confidently calculate averages from a list of data.	I can confidently calculate averages from a frequency table.	I can confidently calculate averages from a group frequency table.	
<b>Representing data</b>	I can confidently produce and interpret a bar chart, pictogram, frequency polygon and stem and leaf diagram.	I can confidently produce and interpret a pie chart and time series graph.	I can confidently produce and interpret scatter diagrams and cumulative frequency curves.	