

What progress am I making in Maths?
 How can I get better in Maths and progress to the next level?

Year 9	<u>Acquiring</u>	<u>Developing</u>	<u>Securing</u>	<u>Consolidating</u>	<u>Extending</u>
Number	I can calculate with positive indices and roots	I can change between standard form and numbers I can round using whole numbers, decimals and significant figures	I can multiply and divide with standard form I can find upper and lower bounds	I can add and subtract with standard form I can truncate I can write error intervals	I can answer problems based on bounds
Algebra	I can define term, expressions, equations, formulae I can recognise Fibonacci sequences I can find the next term in a sequence I can solve one step equations and inequalities I can fill in a table of values and plot a straight line graph	I can identify and understand identities I can expand and factorise single brackets I can find the nth term of a linear sequence I can solve two-step equations and inequalities, including with brackets I can find the gradient and y-intercept of a graph I can solve simultaneous equations graphically	I can expand double brackets in the form $(x+a)(x+b)$ I can factorise quadratics with positives I can identify a quadratic sequence I can generate a sequence from an nth term I can solve equations and inequalities with the unknown on both sides I can find the equation of a straight line I can plot a quadratic graph I can solve simple simultaneous equations	I can expand double brackets in the form $(Ax+a)(Bx+b)$ I can factorise quadratics with negatives I can form and solve expressions and formulae I can find the nth term of a sequence in the form $n^2 + a$ I can solve equations and inequalities with negative terms I can form and solve equations I can recognise linear, quadratic and cubic graphs I can solve simultaneous equations where multiplication is necessary	I can factorise using the difference of two squares. I can "show" algebraic arguments are true or false I can find the nth term in the form $n^2 + an + b$ I can construct and solve inequalities I can plot the graphs of reciprocal functions I can derive and solve simultaneous equations

<p>Shape, Space & Measure</p>	<p>I can accurately use a protractor and compass I can find the area of triangles, quadrilaterals and compound shapes I can find lengths of similar shapes</p>	<p>I can construct simple loci I can construct 2D shapes I can find the area and circumference of circles I can identify why two triangles are congruent</p>	<p>I can construct bisectors I can draw plans and elevations I can find the area of a sector I can find the arc length I can find the surface area of prisms I can use Pythagoras theorem I can find areas of similar shapes</p>	<p>I can use bisectors to inform loci answers I can draw a shape from the plans and elevations I can find the volume of prisms using Pythagoras I can solve questions that combine Pythagoras and other rules I can find volumes of similar shapes I can define Pythagorean triples</p>	<p>I can use bisectors to inform complex loci answers I can find the surface area of cylinders I can find the angle of a sector when given the arc length or area of a sector</p>
<p>Probability & Statistics</p>	<p>I can list outcomes I can fill in a frequency tree I can interpret time series graphs</p>	<p>I can draw a probability tree I can construct time series graphs I can construct and interpret compound bar charts</p>	<p>I know the multiplication law of probability I can use probability trees to find independent events I can construct and interpret frequency polygons and scatter graphs</p>	<p>I know the addition law of probability I can use probability trees including more than one outcome I can describe correlations</p>	<p>I can use probability trees to solve dependent event combinations I can state why correlation does not indicate causation</p>
<p>Ratio and Proportion</p>	<p>I can share an amount into a given ratio I can find speed, distance, time</p>	<p>I can solve simple problems involving rates of pay I can solve problems using unit pricing I can find density, mass, volume I can solve speed questions with decimal units</p>	<p>I can answer direct proportion questions I can solve complex ratio problems involving concentrations</p>	<p>I can answer inverse proportion questions I can solve problems involving pressure</p>	<p>I can distinguish between situations involving inverse and direct proportion I can convert between compound units of density and pressure</p>