

## What progress am I making in Maths?

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

Year 8	<u>Acquiring</u>	<u>Developing</u>	<u>Securing</u>	<u>Consolidating</u>	<u>Extending</u>
<b>Number</b>	I can identify a prime number I can round to the nearest 1, 10, 100... I can add and subtract through zero using a number line	I can draw a factor tree I can round to decimal places I can identify examples of standard form I can add and subtract negative numbers I can multiply and divide negative numbers I understand the order of operations	I can express a number as a product of its prime factors I can round to significant figures I can switch between numbers and standard form I can use BIDMAS with powers I can use square and cube numbers	I can use prime factorisation to find LCM and HCF I can estimate by rounding to significant figures I can find upper and lower bounds I can change $12.6 \times 10^4$ to standard form	I can find a number given the LCM and HCF I can write the error interval from rounding I can multiply and divide standard form
<b>Algebra</b>	I can simplify algebraic expressions by adding and subtracting, multiplying and dividing I can find the next term in a sequence I can solve a one-step equation	I can simplify expressions with powers I can substitute positive numbers into formulae I can write the rule of a sequence in word I can solve a two-step equation, which include brackets	I can expand single brackets I can factorise into a single bracket I can simplify indices using multiplication and division I can substitute negative numbers into formulae I can find the nth term of an ascending sequence I can solve equations when the unknown is on both sides	I can rearrange formulae using one step I can use the zero index I can simplify indices raised to a power I can find the nth term of a descending sequence I can use the nth term to find the 100 <sup>th</sup> term I can use a graph to solve equations	I can rearrange formulae using more than one step I can simplify e.g. $(3x^4)^2$ I can use the nth term to deduce if a term is in the sequence
<b>Shape, Space &amp; Measure</b>	I can find lines of symmetry I can measure acute angles with a protractor	I can find the order of rotational symmetry I can use scale factors in maps	I can reflect a shape in a line I can translate shapes I can find a bearing Find alternate angles and	I can enlarge shapes from a centre of enlargement I can rotate shapes	I can describe transformations using key words I can solve

	<p>Find angles in a straight line, around a point, in a triangle and quadrilateral</p> <p>I can find the area of a square, rectangle triangle, parallelogram</p>	<p>I can measure all angles using a protractor</p> <p>I can identify vertically opposite angles</p> <p>I can find the area of a trapezium</p> <p>I can find the volume of a prism</p>	<p>corresponding angles</p> <p>Find the total interior angles in a polygon</p> <p>I can find the area and circumference of a circle</p> <p>I can find the area of a compound shape</p>	<p>I can draw plans and elevations</p> <p>Solve missing angles in polygon questions</p> <p>I can find the area of a semi-circle</p> <p>I can find the volume of a cylinder</p>	<p>geometric problems involving bearings</p> <p>I can find a shape from plans and elevations</p> <p>I can find the perimeter of a semi-circle</p>
<b>Probability &amp; Statistics</b>	<p>I can use the language of probability</p> <p>I can construct a frequency table</p> <p>Find the mean, median, mode and range from a list of data</p>	<p>I understand the probability is between 0-1</p> <p>I can work out the probability of a single event</p> <p>I can identify types of data</p> <p>Find the mode and range from a frequency table</p>	<p>I can list all outcomes of an experiment using a table</p> <p>I can work out theoretical probabilities for events with equally likely outcomes</p> <p>I can plot a scatter graph</p> <p>I can find the median from a frequency table</p> <p>I can compare two groups of data</p>	<p>I can find the relative frequency of an event</p> <p>I can construct a histogram</p> <p>I can identify positive and negative correlation</p> <p>I can find the mean from a frequency table</p>	<p>I can use relative frequency to inform predictions</p> <p>I can find the estimated mean from a frequency table</p>
<b>Ratio and Proportion</b>	<p>I can convert between percentages and decimals</p> <p>I can find a fraction of an amount</p> <p>I can simplify fractions</p> <p>I can express the division of a quantity into a ratio</p> <p>I can calculate with proper fractions</p>	<p>I can convert between mixed numbers and improper fractions</p> <p>I can connect ratios to fractions</p> <p>I can simplify a ratio</p> <p>I can find a percentage of an amount</p>	<p>I can convert between fractions, decimals and percentages freely</p> <p>I can solve recipe problems</p> <p>I can share an amount into a ratio</p> <p>I can find speed, distance and time</p> <p>I can increase and decrease by a percentage</p>	<p>I can identify if a decimal is terminating or recurring</p> <p>I can use compound units by converting first</p> <p>I can calculate with mixed numbers</p>	<p>I can find mass, density and volume</p> <p>I can convert between units of speed</p> <p>I can use reverse percentages</p> <p>I can use simple interest</p>