

OVERVIEW	<p>The Maths department at the Lowry Academy aims to provide students with a secure understanding of mathematical knowledge, categorised according to the following areas: number, algebra, geometry, ratio and proportion, probability, and statistics, meeting the needs of the National Curriculum at KS3 and KS4. The focus of the curriculum is to develop procedural knowledge of the fundamental elements of mathematics in order for students to access further problem solving elements and reason mathematically, whilst fostering a love of maths. By the end of year 8, students will have developed their mathematical skills within the different areas of Maths (number, algebra, ratio and proportion, geometry, probability and statistics)</p>
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AUTUMN	<ul style="list-style-type: none"> • Writing powers in index form • Square and cube numbers • Prime factor decomposition • Rounding integers to the nearest significant figure • Equivalent and simplifying fractions • Fractions 4 operations • Negative numbers 4 operations • Solving and forming equations (1 step, multi, brackets and unknown) • Reading and plotting coordinates 	<p>Assessment</p> <p>Within the autumn term, year 8 students will be assessed through:</p> <p>KPI tests (after each topic), feedback sheets (twice per half term) and fluency Friday (fortnightly)</p>	<p>Personal Development</p> <p>The Maths Department look for opportunities throughout the year to enrich the curriculum through trips and guest speakers.</p> <p>During each half term there is a Reading to Learn Opportunity, in which we look at the life and work of influential mathematicians and political and equality battled they faced.</p>
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SPRING	<ul style="list-style-type: none"> • Convert between units of time, metric and area units • Parallel lines (vertically opposite, alternate, corresponding and co-interior angles) • Exterior and interior angles (including regular and irregular polygons) • Circumference of a circle and perimeter of sectors. • Proportional reasoning (unitary and non-unitary method) • Best buys and recipes • FDP (converting and ordering) • Percentage of an amount, increase and decrease and reverse percentages • Ratio (simplifying, completing, working between and sharing the total) 	<p>Assessment</p> <p>Year 8 students will be given a mid-year assessment within Maths. In addition they will also complete the following:</p> <p>KPI tests (after each topic), feedback sheets (twice per half term) and fluency Friday (fortnightly)</p>	<p>Personal Development</p> <p>The Maths Department look for opportunities throughout the year to enrich the curriculum through trips and guest speakers.</p> <p>During each half term there is a Reading to Learn Opportunity, in which we look at the life and work of influential mathematicians and political and equality battled they faced.</p>
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SUMMER	<ul style="list-style-type: none"> • Area (trapezium, circle and part of a circle) • Compound area (including a mixture of 2d shapes) • Presenting and interpreting data (bar chart, line graph, pie chart) • Averages and problem solving (mode, median, mean and range) • 3D visualisation (naming and features of 3D shapes) • Nets • Volume (cube, cuboid, triangular prisms, cylinder) 	<p>Assessment</p> <p>Year 8 students will be given an end of year assessment within Maths. In addition they will also complete the following:</p> <p>KPI tests (after each topic), feedback sheets (twice per half term) and fluency Friday (fortnightly)</p>	<p>Personal Development</p> <p>The Maths Department look for opportunities throughout the year to enrich the curriculum through trips and guest speakers.</p> <p>During each half term there is a Reading to Learn Opportunity, in which we look at the life and work of influential mathematicians and political and equality battled they faced.</p>
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<p>Useful resources for supporting your child at home</p> <ul style="list-style-type: none"> • Corbett Maths • BBC bitesize • Maths Genie • SPARX
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<p>Homework</p> <p>Students will complete weekly homework on SPARX (online platform) Homework is set every Monday and is due in every Monday. SPARX club is available on the Maths corridor during every lunch time and also after school on a Tuesday (L6)</p>
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