

Maths
Year 7 curriculum map

| Year 7 | T1 | T2 | T3 | T4 | T5 | T6 |
|---|--|---|---|--|--|--|
| Content / Topic for Term | Number 1 | Algebra 1 | Geometry 1 Geometry 2 | Ratio and proportion 1 | Statistics 1 and 2 Probability 1 | Geometry 3 |
| Key knowledge for acquisition, recall and application in assessment or exam | Basic arithmetic Times tables Number properties Using four operations with directed numbers Place value of a number Difference between significant figures and decimal places Definition of estimation | Recall formulae (2D shapes) Basic arithmetic Difference between expression/formula/equation What a like term is Basic rules of algebra What a linear sequence is | Difference between area and perimeter Formulae (2D shapes) More complex formulae (2D shapes) Definition of a compound shape Definition of volume Units of perimeter/area/volume Definition of prism and cross-section Special types of triangle and properties | Ratio notation Recognise equivalent ratios Sharing in a given ratio What direct proportion is The unitary method Basic metric units Recognise enlargements Use monetary conversions | Know the three types of averages and range Rules for drawing a bar/line chart Basic proportions (eg $\frac{1}{4} = 90^\circ$) Difference between proportions and frequencies in context of a pie chart Language of probability Probability scale Know to express a probability as FDP | Recognise types of angles (acute, etc) Angle notation ($\angle ABC$) Compass directions Recognise angles in parallel lines Three rules of bearings Difference between 'A to B' and 'A from B' Know the steps to execute three triangle constructions |

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| | The order of operations (BIDMAS) | | How to demonstrate that angles in a triangle sum to 180° | | Difference between theoretical and experimental probability | Steps to construct angle and perpendicular bisector |
| | Definition of an equivalent fraction | | Special types of quadrilateral and properties | | | Know the sum of interior angles of polygons |
| Key skills to apply in assessment or exam | <p>Timetables</p> <p>Apply four arithmetic operations</p> <p>Basic fractions and equivalents</p> | <p>Apply the four basic operations to algebra</p> <p>Find the term-term rule</p> <p>Find the n^{th} term</p> <p>Substitute</p> | <p>Measure an angle</p> <p>Use a protractor</p> <p>Substitution into formulae</p> <p>Calculate sum of the interior angles in a polygon using triangles</p> | <p>Use multiplication and division to work out equivalent ratios</p> <p>Problem solving</p> <p>Read a scale from a map</p> <p>Apply unitary method</p> <p>Calculate missing lengths in similar shapes</p> | <p>Calculate the averages and range</p> <p>Use a protractor</p> <p>Use a pair of compasses</p> <p>Construct/interpret a bar charts (including dual bar charts)</p> <p>Calculate angle of sector</p> <p>List all possible outcomes</p> <p>Calculate probabilities of single events</p> | <p>Measure an angle</p> <p>Use a pair of compasses</p> <p>Apply the rules of bearings</p> <p>Execute three triangle constructions</p> |

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| Title of Knowledge Organiser | Basic Number Factors and multiples Fractions | Algebra | Perimeter and Area | Ratio | Basic Probability | Angles Bearings and Scale Drawings |
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