

## Nailsea School Curriculum Map – Mathematics

		Topic Title	Key Skills	Content
Year 7	Term 1	UNIT 1 Place value, Adding and Subtracting	Applying skills of place value, adding and subtracting to a variety of different topic areas.	<ul style="list-style-type: none"> <li>• Adding and subtracting</li> <li>• Place value</li> <li>• Ordering</li> <li>• Perimeter</li> <li>• Median</li> <li>• Range</li> </ul>
	Term 2	UNIT 2 Multiplication and division	Applying skills of multiplying and dividing to a variety of different topic areas.	<ul style="list-style-type: none"> <li>• Multiples and factors</li> <li>• Multiplication</li> <li>• Division</li> <li>• Area</li> <li>• Mean</li> </ul>
	Term 3	UNIT 3 Negative numbers, functions, and graphs	Ability to draw on and combine different skills and areas of knowledge.	<ul style="list-style-type: none"> <li>• Negative numbers</li> <li>• Function machines</li> <li>• Substitution</li> <li>• Linear graphs</li> <li>• Gradient</li> </ul>
	Term 4	UNIT 4 Fractions	Applying knowledge of equivalence to solve problems involving fractions.	<ul style="list-style-type: none"> <li>• Lowest common multiples</li> <li>• Equivalent fractions</li> <li>• Comparing and ordering fractions</li> <li>• Adding and subtracting fractions</li> <li>• Mixed fractions</li> </ul>
	Term 5	UNIT 5 Angles	Discovering and applying the links between lines, 2D shapes and angles.	<ul style="list-style-type: none"> <li>• Drawing, measuring and classifying angles</li> <li>• Intersecting lines</li> <li>• Parallel lines</li> <li>• Triangles</li> <li>• Quadrilaterals</li> </ul>
	Term 6	Each Unit of work takes longer than 1 term and therefore studies will also include Term 6.		
Year 8		Topic Title	Key Skills	Content
	Term 1	UNIT 6 Surface area and volume	Ability to build on current knowledge and apply to new topic areas.	<ul style="list-style-type: none"> <li>• Area</li> <li>• Properties of 3D shapes</li> <li>• Surface area</li> <li>• Volume</li> </ul>
	Term 2	UNIT 7 Number	Ability to draw on and combine different skills and areas of knowledge.	<ul style="list-style-type: none"> <li>• Indices</li> <li>• Prime numbers,</li> <li>• Order of operation,</li> <li>• Rounding decimals</li> <li>• Using a calculator</li> <li>• Pythagoras' Theorem</li> </ul>
	Term 3	UNIT 8 Algebraic expressions and equations	Ability to draw on and combine different skills and areas of knowledge.	<ul style="list-style-type: none"> <li>• Writing expressions</li> <li>• Collecting like terms</li> <li>• Multiplying terms</li> <li>• Brackets</li> <li>• Solving equations</li> </ul>
	Term 4	UNIT 9 Proportional reasoning	Applying knowledge of proportion to solve problems.	<ul style="list-style-type: none"> <li>• Conversion between fractions, decimals and percentages.</li> <li>• Percentages</li> <li>• Multiplying and dividing fractions</li> <li>• Ratio</li> </ul>

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			<ul style="list-style-type: none"> <li>• Proportion</li> </ul>
Term 5	UNIT 10 Probability	Ability to develop knowledge within a topic.	<ul style="list-style-type: none"> <li>• Probability scale</li> <li>• Calculating probabilities</li> <li>• Listing outcomes</li> <li>• Sample space diagrams</li> <li>• Probability of multiple events</li> </ul>
Term 6	Each Unit of work takes longer than 1 term and therefore studies will also include Term 6.		

Year 9		Key skills	Content (FOUNDATION)	Key skills	Content (HIGHER)
	Term 1	Ability to combine number skills to access standard form.	<ul style="list-style-type: none"> <li>• Number, factors and multiples</li> <li>• Indices</li> <li>• Decimals</li> <li>• Standard Form</li> </ul>	Ability to combine number skills to access standard form.  Revising algebra and fraction skills to access solving harder linear equations and inequalities	<ul style="list-style-type: none"> <li>• Number, factors and multiples</li> <li>• Indices</li> <li>• Decimals</li> <li>• Standard Form</li> <li>• Algebra manipulation</li> <li>• Fractions</li> </ul>
	Term 2	Building on angles knowledge.  Revisiting fractions to apply knowledge in pie charts.	<ul style="list-style-type: none"> <li>• Properties of polygons</li> <li>• Angles and polygons</li> <li>• Scale drawing and bearings</li> <li>• Fractions</li> <li>• Review and revision</li> </ul>	Transferring the ability to set up and solve equations into an angle problem.	<ul style="list-style-type: none"> <li>• Linear equations</li> <li>• Inequalities</li> <li>• Angles and bearings</li> <li>• Review and revision</li> </ul>
	Term 3	Recapping of substitution to access sequences and linear graphs topics.	<ul style="list-style-type: none"> <li>• Pie charts</li> <li>• Substitution</li> <li>• Sequences</li> <li>• Coordinates and linear graphs</li> </ul>	Combining substitution and rearranging skills to apply within sequences and graph work	<ul style="list-style-type: none"> <li>• Construction and Loci</li> <li>• Substitution</li> <li>• Rearranging formulae</li> <li>• Sequences</li> </ul>
	Term 4	Revisiting algebra skills to be able to extend knowledge into solving equations and inequalities.	<ul style="list-style-type: none"> <li>• Scatter graphs</li> <li>• Algebra manipulation</li> <li>• Review and revision</li> </ul>	Using knowledge of linear graphs to access inequality regions topic.	<ul style="list-style-type: none"> <li>• Linear graphs</li> <li>• Inequality regions</li> <li>• Scatter graphs</li> <li>• Review and revision</li> </ul>
	Term 5	Linking topics requiring similar methods e.g. equations and inequalities. Recap and extension of key number topic i.e. percentages.	<ul style="list-style-type: none"> <li>• Equations</li> <li>• Inequalities</li> <li>• Percentages</li> </ul>	Working on topics that require similar concepts and applying to real life situations.	<ul style="list-style-type: none"> <li>• Ratio</li> <li>• Proportion</li> <li>• Real life graphs</li> </ul>
	Term 6	Developing practical and spatial concepts.	<ul style="list-style-type: none"> <li>• Revision and examinations</li> <li>• Construction and loci</li> </ul>	Revisiting area topic prior to further shape and space work in Year 10 and developing spatial concepts.	<ul style="list-style-type: none"> <li>• Perimeter and area</li> <li>• Revision and examinations</li> <li>• Circles</li> </ul>