

Curriculum Overview

Year	Topic	Strands	Key Concepts	Learning Objectives	Assessment Methods	Resources	Notes
Year 7	Algebra	Number	Integers, Fractions, Decimals	Operations with integers, fractions, and decimals.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Focus on understanding the relationship between different number systems.
		Algebra	Linear Equations, Inequalities	Solving linear equations and inequalities.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Emphasis on graphical representation of algebraic relationships.

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Year 8	Algebra	Number	Ratios, Percentages	Understanding ratios and percentages.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Real-world applications of ratios and percentages.
		Algebra	Quadratic Equations	Solving quadratic equations.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Graphical solutions for quadratic equations.

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Year 9	Algebra	Number	Indices, Standard Form	Operations with indices and standard form.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Understanding the laws of indices.
		Algebra	Simultaneous Equations	Solving simultaneous equations.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Graphical and algebraic methods.

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Year 10	Algebra	Number	Area and Volume	Calculating area and volume.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Practical applications of area and volume.
		Algebra	Functions	Understanding functions.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Graphical representation of functions.

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Year 11	Algebra	Number	Statistics	Understanding statistics.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Interpreting data from various sources.
		Algebra	Advanced Algebra	Advanced algebraic techniques.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Complex algebraic problems.

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Year 12	Algebra	Number	Calculus	Introduction to calculus.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Understanding rates of change.
		Algebra	Complex Numbers	Operations with complex numbers.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Graphical representation of complex numbers.

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Year 13	Algebra	Number	Advanced Calculus	Advanced calculus topics.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Integration and differentiation.
		Algebra	Vector Geometry	Understanding vector geometry.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	3D geometry and vectors.

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Year 14	Algebra	Number	Probability	Understanding probability.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Combinatorics and probability distributions.
		Algebra	Trigonometry	Understanding trigonometry.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Trigonometric identities and applications.

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Year 15	Algebra	Number	Statistics	Advanced statistics.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Hypothesis testing and confidence intervals.
		Algebra	Mathematical Induction	Using mathematical induction.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Proving mathematical statements.

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Year 16	Algebra	Number	Complex Numbers	Advanced complex numbers.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Operations with complex numbers.
		Algebra	Group Theory	Introduction to group theory.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Abstract algebra concepts.

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Year 17	Algebra	Number	Number Theory	Number theory concepts.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Diophantine equations and divisibility.
		Algebra	Field Theory	Introduction to field theory.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Abstract algebra and Galois theory.

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Year 18	Algebra	Number	Combinatorics	Advanced combinatorics.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Counting problems and probability.
		Algebra	Topology	Introduction to topology.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Geometric and algebraic topology.

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Year 19	Algebra	Number	Mathematical Logic	Mathematical logic.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Propositional and predicate logic.
		Algebra	Category Theory	Introduction to category theory.	Problem-solving, Numerical Accuracy	Textbooks, Worksheets	Abstract algebra and set theory.