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SUBJECT CURRICULUM PLAN

SUBJECT:	**Mathematics**	**YEAR GROUP:**	**9**(Foundation)
SUBJECT INTENT:	To consolidate core arithmetic and proportional fluency, establishing key abstract algebraic foundations and geometric rules to build confidence for Foundation tier success.		

TERM	TOPIC	CORE LEARNING	KEY CONCEPTS	SEQUENCING
Autumn	Calculations 1	Reviewing place value, standard column methods for long multiplication and division, ordering integers, and managing directed numbers.	Place value, column algorithms, integer order, negative values.	Consolidates baseline numerical fluency from Year 7. Ensures entry calculations are sound for multi-step financial math.
Autumn	Fractions, Decimals & Percentages	Adding and subtracting fractions with different denominators, converting between forms, rounding to decimal places, and finding percentages of amounts.	Common denominator, fraction conversion, decimal thresholds.	Builds on Key Stage 3 fractional operations. Underpins basic interest problems and geometric scales in Year 10.
Autumn	Handling Data 1	Formulating tally charts, constructing grouped frequency distributions, and extracting summary points from bar charts or	Grouped intervals, class width, frequency metrics, data categories.	Upgrades primary data collection skills. Prerequisite for calculating estimated means from tables in Year 10.

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TERM	TOPIC	CORE LEARNING	KEY CONCEPTS	SEQUENCING
		pictograms.		

TERM	TOPIC	CORE LEARNING	KEY CONCEPTS	SEQUENCING
Spring	Expressions & Equations	Simplifying linear terms, substituting numbers into standard formulas, expanding single brackets, and solving simple two-step linear equations.	Like terms, simplification parameters, substitution inputs, inverse steps.	Extends algebraic basics from Year 8. Directly unlocks linear graph equations (y=mx+c) and coordinate models.
Spring	Working in 2D	Calculating the perimeter and area of squares, rectangles, triangles, and composite composite rectangular floor profiles.	Boundary lengths, floor area grid constants, compound perimeter paths.	Revisits Year 7 geometric spaces. Directly sequences into calculating surface area metrics for 3D prisms in Year 10.
Spring	Pythagoras Theorem	Identifying right-angled triangles and calculating the length of the hypotenuse or shorter sides using standard squares.	Hypotenuse, squaring rules, root values, right-angle geometry.	Bridges from basic square roots in Year 7. Crucial for real-world spatial measurement and design tasks in Year 11.

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TERM	TOPIC	CORE LEARNING	KEY CONCEPTS	SEQUENCING
Summer	Sequences	Generating number lines from simple term-to-term rules and discovering the nth term rules of ascending linear arithmetic tracks.	Arithmetic sequences, common gap values, position rules.	Extends Year 8 pattern tracking. Crucial groundwork for functional coordinate models and graphical representation equations.
Summer	Ratio and Proportion	Simplifying ratios using common dividers, dividing quantities into specific parts, and exploring simple direct recipes.	Ratio simplification, sharing components, unitary scale factors.	Deepens baseline proportional tracking. Vital background preparation for handling recipe variations and exchange rates in Year 11.

SUBJECT:	**Mathematics**	YEAR GROUP:	**10**(Foundation)
SUBJECT INTENT:	To widen geometric, algebraic, and structural modeling, introducing coordinate lines, explicit quadratic solutions, real-world indices, and functional circle spaces.		

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TERM	TOPIC	CORE LEARNING	KEY CONCEPTS	SEQUENCING
Autumn	Graphs 1	Plotting linear configurations, calculating gradients from coordinate pairs, and identifying the intercept points along axes.	Gradient lines, intercepts, Cartesian axes (y=mx+c).	Connects linear sequences with spatial layouts. Prepares students for reading real-world travel graphs in Year 11.
Autumn	Solving Quadratic Equations	Solving explicit quadratic equations by factorising into single or double brackets and tracing cross-cutting roots.	Factoring parameters, quadratic terms, root values.	Advances from linear expansions in Year 9. Mandatory core structural requirement for plotting quadratic path curves.
Autumn	Factors, Powers & Roots	Utilizing standard index laws for multiplication and division, evaluating prime factors, and calculating LCM/HCF patterns.	Index constraints, bases, prime products, common multiples.	Refines Year 7 index fluency. Essential preparation for managing large figures via standard form models in Year 11.

TERM	TOPIC	CORE LEARNING	KEY CONCEPTS	SEQUENCING
Spring	Trigonometry (SOHCAHTOA)	Using sine, cosine, and tangent ratios to find missing side lengths and angles in right-angled configurations.	Trigonometric ratios, hypotenuse, opposite, adjacent values.	Builds directly upon Year 9 Pythagoras rules. Connects spatial properties with abstract functional calculations.
Spring	Trigonometry	Using sine, cosine, and	Trigonometric	Builds directly upon Year 9 Pythagoras rules. Connects spatial

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TERM	TOPIC	CORE LEARNING	KEY CONCEPTS	SEQUENCING
	(SOHCAHTOA)	tangent ratios to find missing side lengths and angles in right-angled configurations.	ratios, hypotenuse, opposite, adjacent values.	properties with abstract functional calculations.
Spring	Formulae and Functions	Rearranging simple linear formulas to make a specified variable the main subject of the equation.	Changing the subject, algebraic balance, substitution variables.	Elevates multi-step linear equation solving. Unlocks formula transformations required across sciences and financial modeling.
Spring	Circles and Constructions	Calculating the circumference and total area of full circles using exact pi values and creating compass bisectors.	Diameter properties, pi ratio, boundary lines, arcs.	Upgrades Year 8 circular frameworks. Essential for calculating composite mechanical gear paths in technical fields.

TERM	TOPIC	CORE LEARNING	KEY CONCEPTS	SEQUENCING
Summer	Inequalities	Solving linear inequalities and demonstrating intervals clearly on standard horizontal number lines.	Inequality tracking, bounds, regional constraints, intervals.	Refines Year 9 equation solving boundaries. Unlocks regional constraints and solution tracking tracks.
Summer	Working in 3D	Calculating the volumes and surface areas of	Cross-sectional areas, volume	Integrates Year 9 2D space math. Direct stepping stone for managing compound unit models (density/pressure) in Year 11.

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TERM	TOPIC	CORE LEARNING	KEY CONCEPTS	SEQUENCING
		regular cubes, cuboids, and basic triangular prisms.	limits, net configurations.	

SUBJECT:	Mathematics	YEAR GROUP:	11(Foundation)
SUBJECT INTENT:	To master compound units, statistical probability mechanics, and accurate measurement tools, executing target revision frameworks for Foundation tier success.		

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TERM	TOPIC	CORE LEARNING	KEY CONCEPTS	SEQUENCING
Autumn	Graphs 2 & Proportionality	Interpreting distance-time models, computing conversion rates, and transforming compound values including speed, density, and pressure.	Compound units, rate multipliers, time variables, travel tracks.	Integrates Year 10 graph concepts with Year 9 ratio mechanics. Crucial for completing core chemistry and physics calculation modules.
Autumn	Revision of Y9/Y10 TOPICS	Review booklets with mathwatch clips and corbett maths clips. Consolidation with revision tests.	Recall previous topics learnt in Y9/Y10 for revision for the mock exams.	Reviews key skills content from previous years to ensure easy marks in the exams are not lost.

TERM	TOPIC	CORE LEARNING	KEY CONCEPTS	SEQUENCING
Spring	Probability of Combined Events	Constructing space tracking layouts, sorting elements using Venn diagrams, and mapping path choices along tree	Venn boundaries, event sample paths, branch multipliers.	Elevates basic probability tools from Year 9. Prepares students for managing risks and data structures across logical vocations.

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TERM	TOPIC	CORE LEARNING	KEY CONCEPTS	SEQUENCING
		diagrams.		
Spring	Measures and Accuracy	Rounding values to key significant figures, utilizing calculator functions, and constructing error interval bounds.	Significant thresholds, error bounds, calculator syntax.	Refines entry calculation skills. Essential for establishing measurement boundaries across trade fields.
Spring	Vectors	Defining directed lines as column movements, executing addition updates, and multiplying matrices by scalar factors.	Column matrices, scalar shifts, translation paths.	Connects coordinate math with directional movements. Essential framework preparation for technical trade drafting applications.
Spring	Targeted GCSE Foundation Revision	Reviewing high-weight numbers, algebra, and geometry topics based on mock script analysis and errors.	Fluency updates, paper pacing, error parsing, threshold checks.	Synthesizes the entire Foundation curriculum. Fully transitions students into exam-ready confidence fields.

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TERM	TOPIC	CORE LEARNING	KEY CONCEPTS	SEQUENCING
Summer	Final Examination Readiness	Completing final past-paper practice runs, reviewing formula rules, and refining exam board structural time management workflows.	Exam timing, question selection, formula extraction.	Finalizes the secondary school curriculum path, securing maximum GCSE qualification benchmarks.