

📐 Subject Vision — Why Mathematics Matters	
Our Vision The Mathematics Department develops young men who think clearly, reason precisely and persevere in the face of challenge. Unlike Year 7, Year 8 is delivered through a continuous, department-wide Progress Step pathway spanning Progress Steps 2 to 8: every class follows exactly the same sequence of topics, but each begins at the point its Year 7 attainment supports. By the end of Year 8, pupils will have secured standard form, indices and a wider range of fraction, decimal and ratio skills; be confident manipulating algebraic expressions and solving linear equations and inequalities; have begun quadratic graphs and simultaneous equations; be fluent with circle measures, compound area and volume; and be able to interpret grouped data, tree diagrams and Venn diagrams.	Key Concepts This Year ▶ Mastery pathway: no pupil is re-taught content already secure, and no pupil is held back — each class enters the shared sequence at its own point. ▶ Number fluency: standard form, indices, surds and recurring decimals extend Year 7 integer and decimal work. ▶ Algebraic manipulation: double brackets, factorising, simultaneous equations and quadratic graphs build towards GCSE. ▶ Compound measures: percentage change by multiplier, speed, density and other compound measures extend Year 7 ratio work. ▶ Geometric reasoning: circles, 3D shapes, bearings and an introduction to Pythagoras' Theorem and trigonometry.

🌀 Curriculum Journey — The Progress Step Pathway									
PROGRESS STEP 2		PROGRESS STEP 3		PROGRESS STEP 4		PROGRESS STEP 5		PS 6–8	
Foundation Consolidation		Year 7 → 8 Bridge		Core Year 8 Content		Extension into KS4		Early GCSE Content	
Late Year 7 geometry and statistics for classes needing additional foundation time (8aMa5, 6, 9, 10 start here).		Standard form, fraction/percentage fluency, angle and area work, and an introduction to algebraic manipulation (8aMa1–4, 7, 8 start here).		Indices, compound measures, harder equations and inequalities, circle sectors and 3D shapes; Pythagoras' Theorem introduced.		Quadratic graphs, simultaneous equations, trigonometry and growth/decay — reached by the strongest-starting classes.		Quadratic sequences, similarity, cumulative frequency, histograms and (for classes furthest ahead) circle theorems and surds.	

A Spiral Curriculum Every Year 8 class moves through the identical Progress Step sequence; what differs is where each class begins and how far it travels using its 98 curriculum teaching lessons this year. Projections: 8aMa9/10 move from Reading Scales (PS2) to 3D Shapes (PS3); 8aMa5/6 move from Line Graphs (PS2) to Averages from Tables (PS3); 8aMa1/2 move from Standard Form 1 (PS3) to Solving Inequalities (PS4); and 8aMa3/4/7/8 move from Expanding Brackets (PS3) to Writing Formulae (PS4). Because the pathway is continuous, every class carries its end-of-year position straight into Year 9 with no repetition of secured material.

📄 Assessment Information	
How Pupils Are Assessed ▶ Pre-Assessment Protocol: a short diagnostic before every topic on the pathway; secure pupils move straight to the next topic without re-teaching. ▶ Knowledge Tests: short retrieval-practice tests at the start of every lesson, scored and used to identify gaps. ▶ Formal Assessment Lessons: 1 assessment lesson and 1 PATHS feedback lesson built into every 7-lesson fortnightly cycle. ▶ WOTC: an alternating weekly cycle of exam-paper corrections (Week A) and learning key formulae (Week B).	Formal Assessment by Progress Step ▶ Progress Step 2–3: GCSE-style questions on reading scales, line graphs, standard form and expanding brackets, matched to each class's starting content. ▶ Progress Step 4: GCSE-style test on indices, compound measures, solving inequalities and Pythagoras' Theorem. ▶ Progress Step 5+: GCSE-style test on quadratic graphs, simultaneous equations and trigonometry for classes reaching this content. ▶ Class Tracking: pre-assessment data lets Heads of Department compare each class's progress against its confirmed starting point at a glance.

★ PATHS Marking Framework
Every formal assessment is followed by feedback using PATHS — the school's consistent feedback model. No PATHS cycle is complete until the pupil has responded.

Element		What it means	Example in this year
P	Positive Comment	A specific, genuine comment on a genuine strength — not generic praise.	“Your method for rationalising the denominator was clear and fully correct.”
A	Attainment Mark / Grade	A clear mark, percentage or working grade, plus a note on where the pupil sits against their Progress Step and KS4 expectations.	This response is performing securely at Progress Step 4; to progress to Step 5, apply the method to a two-step inequality.
T	Target to Improve	A single, specific, mathematical target — never vague.	“Show every step when expanding double brackets — do not combine terms mentally.”
H	How-to Instructions	A precise, do-able instruction telling the pupil exactly how to improve.	“Redo question 6 showing FOIL fully, then simplify on a separate line.”
S	Student Response	Pupils respond in green pen in the same or next lesson; the teacher checks and initials the response.	Green pen response rewriting the weak section and noting what to do differently next time, checked by the teacher.