

Year 12 HSC maths scope and sequence

Flexible planning maps for Standard 2, Advanced, Extension 1 and Extension 2

curriq | Four-course faculty planning template

Planning basis: a flexible Year 12 sequence scaffold. Confirm the syllabus version applicable to your cohort and insert exact formal outcomes from the current official syllabus before use.

Verified 3 August 2026. The 2026 HSC uses the applicable 2017 mathematics syllabus; the 2024 syllabuses are first examined in the 2027 HSC. Verify current sources and local requirements before use.

How to use this template

- Replace broad week bands with your school calendar, assessment schedule and lesson allocation.
- Audit prerequisites before each unit and reserve explicit retrieval/reteach time.
- Map every formal task to current component and weighting requirements.
- Coordinate Advanced and Extension pacing where students study concurrent courses.
- Use trial and class evidence to change revision priorities rather than following the plan mechanically.

Standard 2

Timing	Focus	Formal outcome mapping (verify)	Learning evidence	Assessment checkpoint
Term 4 W1-2	Baseline and prerequisite review	[Insert applicable formal outcome from current syllabus]	Short diagnostic; identify individual prerequisite gaps	No formal weighting
Term 4 W3-5	Types of Relationships	[Insert applicable formal outcome from current syllabus]	Model, graph and interpret non-linear relationships	Common task checkpoint
Term 4 W6-10	Investments and Loans	[Insert applicable formal outcome from current syllabus]	Compare investment and reducing-balance loan models	Topic assessment / feedback
Term 1 W1-4	Annuities	[Insert applicable formal outcome from current syllabus]	Use recurrence and value tables; justify financial decisions	Mixed financial modelling response
Term 1 W5-10	Measurement, Trigonometry, Rates	[Insert applicable formal outcome from current syllabus]	Solve non-right triangle, scale, rate and ratio problems	Timed section
Term 2 W1-4	Bivariate and Normal Distribution	[Insert applicable formal outcome from current syllabus]	Interpret association, models, z-scores and distributions	Data investigation
Term 2 W5-7	Networks and Critical Path	[Insert applicable formal outcome from current syllabus]	Use network algorithms and scheduling	Problem-solving task
Term 2 W8-10	Interleaved consolidation	[Insert applicable formal outcome from current syllabus]	Connect topics in unfamiliar contexts	Trial preparation
Term 3 W1-3	Trial, feedback and reteach	[Insert applicable formal outcome from current syllabus]	Analyse scripts by question and outcome	Trial examination
Term 3 W4-HSC	Spaced revision	[Insert applicable formal outcome from current syllabus]	Timed papers, error correction and retrieval	Low-stakes checks

Advanced

Timing	Focus	Formal outcome mapping (verify)	Learning evidence	Assessment checkpoint
Term 4 W1-3	Functions and graphing techniques	[Insert applicable formal outcome from current syllabus]	Transform, model and interpret functions	Diagnostic / skills check
Term 4 W4-6	Trigonometric functions and graphs	[Insert applicable formal outcome from current syllabus]	Solve equations and analyse periodic models	Topic quiz
Term 4 W7-10	Differential calculus	[Insert applicable formal outcome from current syllabus]	Apply differentiation rules accurately	Common task checkpoint
Term 1 W1-4	Applications of differentiation	[Insert applicable formal outcome from current syllabus]	Optimisation, rates of change and curve analysis	Modelling response
Term 1 W5-8	Integral calculus	[Insert applicable formal outcome from current syllabus]	Find and apply definite/indefinite integrals	Timed section
Term 1 W9-Term 2 W2	Sequences, series and financial models	[Insert applicable formal outcome from current syllabus]	Select and interpret discrete models	Investigation / response
Term 2 W3-6	Descriptive statistics and random variables	[Insert applicable formal outcome from current syllabus]	Analyse distributions and communicate conclusions	Data task
Term 2 W7-10	Interleaved problem solving	[Insert applicable formal outcome from current syllabus]	Connect functions, calculus, models and statistics	Trial preparation
Term 3 W1-3	Trial, feedback and reteach	[Insert applicable formal outcome from current syllabus]	Analyse scripts by question and outcome	Trial examination
Term 3 W4-HSC	Spaced revision	[Insert applicable formal outcome from current syllabus]	Timed papers, error correction and retrieval	Low-stakes checks

Extension 1

Timing	Focus	Formal outcome mapping (verify)	Learning evidence	Assessment checkpoint
Term 4 W1-3	Further work with functions	[Insert applicable formal outcome from current syllabus]	Use inverse, composite and parametric ideas	Diagnostic / proof of prerequisites
Term 4 W4-6	Trigonometric identities and equations	[Insert applicable formal outcome from current syllabus]	Choose identities and solve restricted equations	Topic quiz
Term 4 W7-10	Further calculus	[Insert applicable formal outcome from current syllabus]	Apply advanced differentiation and integration methods	Common task checkpoint
Term 1 W1-3	Applications of calculus	[Insert applicable formal outcome from current syllabus]	Model motion and connected rates	Extended response
Term 1 W4-6	Combinatorics	[Insert applicable formal outcome from current syllabus]	Count systematically and justify arrangements	Problem set
Term 1 W7-9	Proof by induction	[Insert applicable formal outcome from current syllabus]	Construct base, assumption and inductive step	Proof task
Term 2 W1-3	Vectors	[Insert applicable formal outcome from current syllabus]	Represent and solve geometric/kinematic problems	Timed section
Term 2 W4-6	Binomial distribution	[Insert applicable formal outcome from current syllabus]	Model discrete random variables	Data response
Term 2 W7-10	Interleaved problem solving	[Insert applicable formal outcome from current syllabus]	Select methods in unfamiliar multi-step items	Trial preparation
Term 3 W1-HSC	Trial analysis and spaced revision	[Insert applicable formal outcome from current syllabus]	Timed papers, proof rehearsal and error correction	Trial plus checks

Extension 2

Timing	Focus	Formal outcome mapping (verify)	Learning evidence	Assessment checkpoint
Term 4 W1-3	The nature of proof	[Insert applicable formal outcome from current syllabus]	Write direct, contradiction and counterexample arguments	Proof diagnostic
Term 4 W4-6	Further proof and inequalities	[Insert applicable formal outcome from current syllabus]	Select a rigorous proof strategy	Proof portfolio
Term 4 W7-10	Vectors	[Insert applicable formal outcome from current syllabus]	Use vector methods in geometry	Common task checkpoint
Term 1 W1-4	Complex numbers	[Insert applicable formal outcome from current syllabus]	Represent, calculate and interpret loci	Extended response
Term 1 W5-7	Further integration	[Insert applicable formal outcome from current syllabus]	Apply advanced techniques and reductions	Timed section
Term 1 W8-Term 2 W2	Applications of calculus	[Insert applicable formal outcome from current syllabus]	Solve mechanics and modelling problems	Investigation / response
Term 2 W3-5	Mechanics	[Insert applicable formal outcome from current syllabus]	Model motion and forces with defined assumptions	Problem-solving task
Term 2 W6-8	Interleaved proof and problem solving	[Insert applicable formal outcome from current syllabus]	Connect algebra, geometry and calculus	Trial preparation
Term 2 W9-Term 3 W3	Trial and targeted reteach	[Insert applicable formal outcome from current syllabus]	Analyse scripts by question and concept	Trial examination
Term 3 W4-HSC	Spaced revision	[Insert applicable formal outcome from current syllabus]	Timed papers, proof plans and correction cycles	Low-stakes checks

Faculty review checkpoints

Checkpoint	Evidence to review	Decision	Owner / date
Before Year 12 begins	Year 11 evidence, calendar, cohort adjustments	Prerequisite and pacing changes	[]
End of Term 4	Diagnostic and first task	Reteach / acceleration	[]
Mid-course	Outcome-level class evidence	Sequence and assessment adjustment	[]
After trial	Question, outcome and misconception analysis	Individual revision priorities	[]
After HSC results	RAP item analysis and faculty reflection	Next-cycle program changes	[]

Official sources

NESA mathematics curriculum and current notices:

<https://www.nsw.gov.au/education-and-training/nesa/curriculum/mathematics>

NSW Curriculum - Mathematics Advanced 11-12 (2024) timeline:

<https://curriculum.nsw.edu.au/learning-areas/mathematics/mathematics-advanced-11-12-2024/overview>

NSW Curriculum - Mathematics Standard 11-12 (2024) timeline:

<https://curriculum.nsw.edu.au/learning-areas/mathematics/mathematics-standard-11-12-2024/overview/course>

Verified 3 August 2026. The 2026 HSC uses the applicable 2017 mathematics syllabus; the 2024 syllabuses are first examined in the 2027 HSC. Verify current sources and local requirements before use.