

HSC Standard 2 three-tier worksheet exemplar

One shared mathematical goal with optional support and extension routes

curriq | One shared goal with planned scaffolding and extension

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.

Teacher setup

Field	Plan
Cohort / syllabus	[2026 HSC: applicable 2017 Standard syllabus / first HSC 2027: 2024 Standard syllabus]
Shared learning intention	[One precise mathematical goal for all students]
Success evidence	[What every student will produce or explain]
Diagnostic signal	[Evidence used to allocate optional support, not a permanent label]
Exact outcome / content	[Copy from the applicable current syllabus]

Worked exemplar 1 - financial mathematics

Shared problem: Plan A costs \$200 upfront plus 18 monthly payments of \$55. Plan B has no upfront cost and 18 monthly payments of \$68. Compare total cost and recommend a plan if timing and non-price features are equal.

Route	Student prompt	Worked checkpoint / answer
Tier A - supported	Complete totals from a labelled expression, then use a recommendation sentence frame.	$A = 200 + 18 \times 55 = \$1,190$. $B = 18 \times 68 = \$1,224$. A is \$34 cheaper under the stated assumptions.
Tier B - core	Choose the expressions, compare totals and identify one assumption that could affect the recommendation.	The same totals apply. A price-only recommendation depends on 18 payments being made and no unlisted fees or benefits.
Tier C - extension	Let Plan B's monthly payment be m . Find the break-even value and interpret it.	$200 + 18 \times 55 = 18m$, so $m = 1190/18 = \$66.11$ recurring. Below that, B is cheaper; above it, A is cheaper, assuming all else is equal.

Worked exemplar 2 - statistics

Shared data: five completion times in minutes are 6, 7, 7, 8 and 10. Compare centre and spread, then consider a sixth time of 18 minutes.

Route	Student prompt	Worked checkpoint / answer
Tier A - supported	Use an ordered list to calculate mean, median and range for the five values.	Mean = $38/5 = 7.6$; median = 7; range = $10 - 6 = 4$ minutes.
Tier B - core	Add 18 and recalculate the mean and median. Explain which changes more.	New mean = $56/6 = 9.33$; new median = $(7 + 8)/2 = 7.5$. The mean changes more because it uses the extreme value's magnitude.
Tier C - extension	Choose a centre to report and defend it; state what information your choice conceals.	Median 7.5 better represents a typical time when 18 is unusual, but it conceals the long completion time and should be reported with spread or the full distribution.

How the routes stay flexible

- All students answer the same mathematical question; support changes representation, prompts and independence rather than lowering the destination.
- Move a student between routes within the lesson from current evidence, not a permanent ability label.

- Fade sentence frames and pre-selected representations once students can choose and justify a method.

Teacher evidence record

Student / group	Route used	Secure evidence	Misconception	Next scaffold / extension
[]	[A / B / C or mixed]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]

The three routes are a local differentiation design, not syllabus levels. Students may move between them within a lesson; all routes retain the same mathematical destination.

Official sources

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

NSW Curriculum mathematics: <https://curriculum.nsw.edu.au/learning-areas/mathematics>

Curriculum reform timeline:
[https://www.nsw.gov.au/education-and-training/nesa/about/strategies-and-reforms/curriculum-reform/time line](https://www.nsw.gov.au/education-and-training/nesa/about/strategies-and-reforms/curriculum-reform/time-line)

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