Trajectory Education

Headstart 2026

Subject Syllabus & Timeline

VCE Methods 3+4

WEEK 1: TRANSFORMATIONS OF FUNCTIONS — 07-12-2025

- Describe the sequence of transformations that maps the graph of $y = f(x)$ to $y = Af(n(x+b)) + c$.
- Determine the rule of a transformed function given a set of transformations.
- Sketch graphs of transformed functions by applying changes to key features.

WEEK 2: POLYNOMIALS & POWER FUNCTIONS — 14-12-2025

- Sketch graphs of polynomials up to degree 4 and simple power functions.
- Identify vertical and horizontal asymptotes for hyperbolas and truncus graphs.
- Solve polynomial equations to find axis intercepts.

WEEK 3: EXPONENTIAL & LOGARITHMIC FUNCTIONS — 21-12-2025

- Sketch graphs of exponential and logarithmic functions, clearly labelling asymptotes and intercepts.
- Solve equations involving exponentials and logarithms with exact values.
- Explain the inverse relationship between e^x and $\log_e(x)$.

WEEK 4: TRIGONOMETRIC FUNCTIONS — 28-12-2025

- Sketch graphs of circular functions showing amplitude, period, and phase shifts.
- Solve trigonometric equations over a given domain, including those requiring boundary adjustments.
- Identify the symmetry properties of circular functions.

WEEK 5: ALGEBRA OF FUNCTIONS (COMPOSITE & INVERSE) — 04-01-2026

- Determine the rule, domain, and range of a composite function.
- Find the inverse of a function and sketch its graph using the reflection property in the line $y = x$.
- Verify if a composite function exists based on domain/range restrictions.

Headstart classes are **completely free** and a great way to set yourself up for the new school year.

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Questions?

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