FOUNDATIONS IN REASONING

PROGRAM OVERVIEW

The Foundations in Reasoning program is designed to build student proficiency in critical thinking and reasoning. Specifically designed for students aged 16 to 18, this program cultivates the ability to question effectively, evaluate arguments, generate ideas, and reflect on one's own thinking, in a way that transfers to any subject area and to decisions students face beyond the classroom. The program deliberately uses every day, non-curriculum scenarios as the vehicle for skill-building, equipping students with a transferable reasoning toolkit.

Delivery of the program is facilitated through an online platform featuring instructional videos segmented into four modules comprising 24 lessons. Each lesson is succeeded by a quiz and a set of Apply, Transfer and Reflect workbook tasks, while each module concludes with a comprehensive test. Upon program completion, participants undertake a final examination consisting of up to 100 questions to evaluate the learners' understanding of the information.

In addition to the core program, teachers have access to supplementary In-Class Activity Sheets designed for classroom discussion and engagement if required.

LEARNING OUTCOMES

Module One: Inquiring

- Recognise inquiry as a deliberate skill and explain how the questions we ask shape the quality of the answers we get.
- Distinguish between open and closed, and surface and probing, questions, and identify when each is useful.
- Structure a line of inquiry that moves from general questions to specific ones.
- Apply a five-point checklist, Author, Motive, Evidence, Currency, Corroboration, to evaluate the reliability of a source.
- Adopt an open-minded, sceptical mindset when assessing information.
- Distinguish factual claims, opinions, and inferences within a single piece of text.
- Combine inquiry, source checking, and fact/opinion/inference skills to analyse a worked example.

Module Two: Analysing & evaluating reasoning

- Identify the components of an argument: claim, evidence, and reasoning.
- Visually map the structure of an argument, including the assumption linking evidence to claim.

- Recognise common reasoning fallacies, including strawman, false cause, and slippery slope arguments.
- Recognise cognitive biases, including confirmation bias, anchoring, and bandwagon effect, and extend this to framing, status, and interpretation bias.
- Evaluate two competing claims against explicit criteria, including objectivity and perspective taking.
- Combine argument structure, fallacy identification, and bias recognition to analyse a worked example.

Module Three: Generating ideas & possibilities

- Distinguish divergent and convergent thinking and identify when to switch between them.
- Apply reversal and perspective-shifting techniques to reframe a problem.
- Apply the SCAMPER technique as a structured method for generating new ideas.
- Reframe problems as 'How Might We' statements to open solution space.
- Select between generated ideas using explicit criteria, including feasibility, impact, and cost.
- Combine ideation and selection-criteria skills to analyse a worked example.

Module Four: Reflecting on thinking

- Recognise metacognition, thinking about one's own thinking, as a distinct, learnable skill.
- Apply a simple reflection framework: what did I think, why, and what changed.
- Notice bias in their own reasoning, applying the bias content from Module Two reflectively.
- Identify the influence of peer pressure and emotional reasoning on their own decision-making.
- Transfer the full reasoning toolkit built across the program to an unfamiliar scenario.
- Combine inquiry, argument evaluation, ideation, and reflection skills to analyse a full-program worked example.