

Round 1, 2026
Solid Pathways-STEM
Queensland Virtual Academy

Parent Guide

Exploring the wonder of STEM through Critical and Creative Thinking



What is Solid Pathways-STEM?

Solid Pathways – STEM is a program specifically designed for Aboriginal and Torres Strait Islander students in Years 4 – 6. The program's objective is to support, nurture and encourage high achieving Aboriginal and Torres Strait Islander students to continue their academic success within STEM fields. Aligning with the Advancing Education Plan, Solid Pathways – STEM provides students with the opportunities they need to develop as problems solvers, critical and creative thinkers and provides them with the tools to harness a passion for change and innovation.

Solid Pathways – STEM uses an interactive, real-time, online learning platform (iSee) to deliver the program and enable students to collaborate with other like-minded Aboriginal and Torres Strait Islander students.

Solid Pathways – STEM focusses on authentic, real-world challenges and makes use of current research, designed to ignite student interest and learning beyond the Australian Curriculum. The program is underpinned by critical and creative thinking skills; drawing on best practice, inquiry-based learning, whilst embedding Aboriginal and Torres Strait Islander perspectives.

Solid Pathways – STEM offers four rounds throughout the year. The courses foster an environment where students can build a portfolio of learning experiences and participate in problem-based learning opportunities. Each course consists of 8 to 9 lessons. Each week students attend one 60-minute, live online teacher facilitated lesson.

Every child carries within them the spark of possibility. By nurturing their curiosity and extending their thinking, we do more than teach STEM — we empower them to question, create, innovate, and shape the world they will one day lead.

Please note that the Solid Pathways – STEM program is delivered in 4 rounds during the year. Students must register for each round separately. Students' registrations do not automatically roll-over to the next round.

Who is Eligible to participate?

To be eligible for entry into Solid Pathways-STEM students must:

- Be in Year 4, 5 or 6 and attend a Queensland state school;
- Identify as an Aboriginal and/or Torres Strait Islander person;
- And all new Year 4 and 5 students must have achieved *A or B in Science and/ or Maths* in their most recent report card, **OR**
- All new Year 6 students must have achieved *A or B in Science and Maths* in their most recent report card.

Please note: *Students who have previously registered in the Solid Pathways – STEM program are automatically eligible for re-register.*

Attendance Expectations for Online Lessons

At Solid Pathways we aim for 100% attendance to support students' learning. If a student misses a lesson, a make-up session will be offered within the same week, where possible.

Students may be withdrawn from the program if:

- They miss three consecutive online lessons.
- They have five absences (explained or unexplained) in a term.
- They move interstate or transfer to a private school.
- Their school and parents confirm they have opted out of the program.

Thank you for supporting consistent attendance to maximise learning outcomes.

Course Overview

Round 1: Term1, Week 3 to Week 10

Year 4 – Round 1

4A – Navigating Country

Have you ever wondered how the Aboriginal and Torres Strait Islander peoples expertly traversed the vast, varied landscapes of Australia without modern technology, like GPS or smartphones? They held a deep understanding of the world's features and were master navigators, using geographical, astronomical, and environmental knowledge, passed down through generations. Their journeys weren't just about getting from point A to point B; they were rich with purpose, from trading and gathering materials for tools, to seeking out seasonal foods, engaging in social activities, and locating life-sustaining water sources.

Can you imagine embarking on a journey to unlock these ancient secrets of navigation and mapping? In our Inquiry Course, not only will you dive into the incredible ways the Aboriginal and Torres Strait Islander peoples travelled on the land, but you'll also gain hands-on experience. You'll learn to read and interpret maps, create your own set of directions, and use map features to navigate geographic challenges. Completing this course will provide you with lifelong skills that are both practical and thrilling to master.

Year 5 – Round 1

5A – Up Up and Away

In this unit, students explore how things fly by learning about the four forces of flight, the effect of shape and materials, and how air moves around different objects. They look at examples from nature, history and Indigenous knowledge systems to guide their thinking. Using the Engineering Design Process, students design, build and test their own flying object, then refine it based on what they learn. By the end, they can explain how their design works and why it flies the way it does.

Year 6 – Round 1

6B – Stepping out the Solution

In just a few short years we have gone from being told “you need to learn maths because you won’t always have a calculator in your pocket” to having the whole internet in the palm of our hand! Despite this, there are some mathematical problems that can’t be solved by pressing buttons, writing a prompt or swiping a screen. This unit supports students to develop and enhance the mathematical skills that technology cannot replace. It promotes problem solving as a life skill and engages students in the processes and steps of problem solving. Students will engage in mathematical investigations to solve real-world problems.

Students will use mathematics as a tool to tackle complex, real-world problems through the lens of a journey. They will sift through clues, apply number skills, measurement, data analysis, and problem-solving strategies, and discover how to make relevant assumptions to fill the gaps and allow them answer otherwise unsolvable problems. The journeys students encounter will encourage them to think critically and work collaboratively as they identify everyday maths in the world around them. Students will justify their reasoning, explaining why their answers may not be right but, when backed up with evidence and supported by logical thinking, they definitely aren’t wrong.

How do I register my child in Solid Pathways-STEM?

Check your student's eligibility

To be eligible for entry into Solid Pathways-STEM, student must:

- Be in Year 4, 5 or 6 and attend a Queensland state school;
- Identify as an Aboriginal and/or Torres Strait Islander person;
- And all new Year 4 and 5 students must have achieved *A or B in Science and/ or Maths* in their most recent report card, **OR**
- All new Year 6 students must have achieved *A or B in Science and Maths* in their most recent report card.

***If your student is eligible Caningeraba State School will be in contact soon to let you know.**

Provide parent/ Guardian permission

Parent/ guardians must complete, sign and return the third-party service online consent form to the school. This will be sent home by the school as soon as it becomes available.

Session times at Caningeraba

Solid Pathways STEM is facilitated by Mrs. Estelle Weeks at the following times:

Year level	Session Booking (Day and time)
4	Wed 9:10am - 10:05am 4A
5	Wed 9:10am - 10:05am 5A
6	Wed 10:05am - 11:00am 6B

Please note: While accessing Solid Pathways via the iSee platform do not require consent, external platforms do. It is absolutely essential for every student to submit the online consent form. The school must guarantee that all students have done so. Accessing online lessons implies the school possesses a record of the students' permission forms.
