



Lighthouse Maths

Information Pack



Program Summary

Lighthouse Maths is a professional learning program for primary educators exploring transformational approaches to maths education, which elevate teaching practice and promote improved student outcomes.

The Lighthouse Maths program develops the capability of primary teachers as leaders in mathematics teaching, with a focus on the use of problem solving and reasoning techniques to develop a deeper conceptual understanding of maths.

Through workshops, one-on-one coaching and provision of teaching resources, the program aims to equip educators with a diverse tool kit to enhance their confidence in teaching maths, increasing student engagement and achievement along the way.

Evidence-based strategies explored throughout the program can be integrated into any learning program. Experienced coaches will work with teachers and school leadership to explore how the practices can be aligned to your whole school approach in maths.

Running since 2022, the Lighthouse Maths program has produced measurable results in student learning outcomes. Standardised testing indicates that students exposed to the Lighthouse Maths program achieve an *additional seven months* of learning on average, beyond the expected one year between tests.

With the support of Chevron Australia, the Lighthouse Maths program is currently provided for **free** over the course of a year to a limited number of schools in the Perth metro region.

This brochure outlines further details regarding the program structure and inclusions. If your school is interested in participating in Lighthouse Maths, please submit your expression of interest on our website!





Program Structure

-
- 01** Participation in Lighthouse Maths will be available to two (2) dedicated and enthusiastic teachers at your school. Most suitable are full-time classroom teachers of Year 2 and above.
 - 02** The teachers will complete six (6) online learning modules in the Powerful Problem-Solving (PPS) approach.
 - 03** Following the completion of each module they will participate in a Coaching Round where they will be supported to implement the approach by our Lighthouse Coaches who have years of experience in implementing Powerful Problem Solving.
 - 04** Teachers will attend three (3) full day events during the year that bring together all program participants to work collaboratively on program objectives and share highlights of their learning journey.
-

Powerful Problem Solving

- 01** This approach combines methods developed by researchers in Australia, UK, Canada and the US into a consistent approach to lesson planning and delivery.
- 02** Lessons are driven by productive struggle, collaboration and rich discussion.
- 03** Students will learn to think deeply, solve flexibly, defend solutions, improve efficiency and reason soundly.
- 04** This approach can be integrated into any existing learning program.





Coaching Round

Each coaching round consists of:

- 01** A one-on-one half-hour live online consult for each teacher where they discuss the lesson plan with the Lighthouse Coach and prepare for the lesson.
- 02** A supported lesson delivery session (with each teacher delivering the lesson, supported by the coach, and observed by the other teacher).
- 03** A debrief session where the coach and the two (2) teachers will discuss both lessons immediately after they conclude.

Program Inclusions

-
- 01** Relief – where teachers are required to be excused from classroom teaching to be able to participate in the program, the cost of relief will be reimbursed by Scitech. This includes attendance at full day workshops and onsite coaching rounds.
-
- 02** Learning Materials – each school will be provided with a selection of books and online learning modules to support teachers' learning, all of which will be accessible to other staff at your school.
-
- 03** Whiteboards – each school will be provided with a class set of eight (8) whiteboard flipcharts that are used throughout the year in Lighthouse Maths lessons.
-
- 04** Community Event – every school will have the opportunity to host a free event for families within your school community. With the aim of bringing students and caregivers together to experience the joy of mathematics, Scitech staff will lead participants through the *Mystery of the Mathematical Menace* challenge.
-





scitech.org.au

