



Mathematics R-2

Program outline



Welcome to the Mathematics R-2 program

The Mathematics R-2 program is co-designed and facilitated by department experts Maureen Hegarty and Dr Pauline Carter. This program is designed to deepen your understanding of numeracy skills development across the curriculum. Aligned with our commitment to equity and excellence, it ensures all learners can build strong foundational numeracy skills for their opportunity to thrive in mathematics.

The program consists of 5 face-to-face program days over 2 terms and covers the below key learning goals.

Understanding the SA Curriculum: Mathematics

- Integrating the content, dispositions and capabilities.
- Developing critical and creative thinking across the strands.
- Using the department's suite of resources for mathematics.

Developing pedagogical content knowledge and teacher expertise

- Understanding the big ideas in number framework and the importance of sequentially building strong number sense.
- Understanding the role of multiple representations and intentional sequencing in developing conceptual understanding.
- Designing engaging and challenging tasks in mathematics to cater for and grow all learner's knowledge and skills.
- Increasing the amount and quality of collaboration and student talk in mathematics.

The learning

Day 1: Key number concepts

- Understanding how attitudes and beliefs influence how we teach and how learners learn mathematics.
- Understanding the big ideas in number and the importance of sequentially building strong number sense.
- Understanding the importance of designing learning which develops mastery.

Day 2: Number concepts and operations

- Developing fluency and understanding of number concepts and operations.
- Exploring a range of tasks to develop strategies for addition and subtraction.
- Understanding the problem-solving process.

Day 3: Number lines, inverse operations and problem solving

- Developing understanding of place value and multiplicative thinking.
- Exploring the use of number lines with addition and subtraction.
- Exploring strategies to build the connection between home and school.

Day 4: Measurement and geometric reasoning

- Using tasks to develop measurement concepts.
- Recognising and developing geometric reasoning.
- Examining how different learning tasks elicit different types and levels of thinking.
- Transforming tasks to increase student engagement, challenge and support in mathematics.

Day 5: Statistics and probability

- Sorting and patterning to develop algebraic thinking.
- Developing statistical understanding and reasoning.
- Exploring the concept of meaningful data.
- Examining the different components of a maths lesson.

Applied learning activities

Applied learning is key to improving your professional practice. Across each day of the program you'll consider how to apply the learning to your context and your students by making your own commitments to action. Then, you'll plan and trial tasks for your class and share your findings with other participants.

The applied learning task is outlined in detail during the program and support provided to you by the facilitators.

Program requirements

To achieve satisfactory completion, you need to:

- actively participate in all program days and activities
- complete the applied learning task.

When you have met the above requirements, you'll receive a certificate of completion from Orbis. This can be used as evidence for your required professional learning hours for registration renewal. If you're unable to meet these requirements, please contact Orbis to discuss.

"Thank you so much. Led by people who are in the classroom and know how it works. I'm walking away each day lighter with practical, engaging options to use in my classroom immediately. Absolutely loved it!"

Sarah Pirc- West Lakes Shore School

Engaging.
Empowering.
Purposeful.
Collaborative.
Exemplary.



Phone 8463 5613

Email Orbis@sa.gov.au

Web www.education.sa.gov.au/orbis

