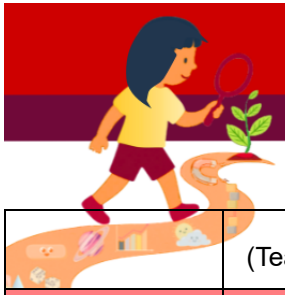

From Curiosity to Confidence Building strong foundations in Mathematics and Science

2026 Early Years Primary Conference

Sunday 1 March 2026, Coorparoo State School, Brisbane

	Room 1: Arnold Room (Teacher & Teacher Aide sessions)	Room 2 B Block (6W)	Room 3 Lahey Studio	Room 4 Library (STEM – tech friendly)
8:00 – 8:45	Registration			
8:45 – 9:00	**Official Opening: Monique Russell, President QAMT and Sponsor Talk: Matific**			
9:00 – 10:00	**Keynote Address: Dr Kym Fry, Griffith University – *So, you want to get into modelling?***			
Workshop 1 10:05 – 11:00	The Power of a Positive Start K-2 Nerida McCredie, Australasian Problem Solving Mathematical Olympiads (APSMO) Inc	Unpacking worded problems: why most strategies don't work and what to do instead Tierney Kennedy, Kennedy Press Pty Ltd	Planning for implementation of v9.0 Australian Curriculum Science Cathryn Menzler, QCAA - Science	Making Maths Click: Digital Approaches for Primary Classrooms Carly Millichap and Alana Bandholz, Brisbane Catholic Education
11:00 – 11:30	Brunch and networking opportunities – Proudly brought to you by RemServ Lease			
Workshop 2 11:30 – 12:20	Calculation Confidence! The 'must-use' manipulatives to create confident calculators. Monique Russell, QAMT	Developing and using symbol libraries for Science Dana Burfeind, Wellers Hill SS	Creating confident mathematical thinkers. Sue Carter, Maths in Schools	Simple circuits for middle/upper primary school Alwyn Powell, Adjunct Lecturer University of Southern Queensland
Workshop 3 12:25 – 1:15	Vocabulary Crunch: Designing and implementing a mathematics vocabulary intervention Megan Gim, Speech Language Pathologist, University of Queensland and Ms Violet Song, Our Lady of Mount Carmel School.	Practical activities to boost number sense Brenda Kettle, Belmont State School	Create Curiosity unlocking maths with Micro:bit games Sue Carter, Maths in Schools	Common Data, Many Pathways: Designing Statistical Investigations Across Year Levels Paulina Sliedrecht, QAMT
1:15 – 1:40	Afternoon Tea			
Workshop 4 1:40 – 2:30	The Language of Investigation Mary Rafter, UQ	The Yugambeh number system and other indigenous maths concepts	Building confidence in creating quality Mathematics assessment questions	Cross Curriculum Literacy Connections: Literacy Teaching within Science

Draft – accurate as of 04/02/26

		Harry Kanasa, GU	Libby Foley, QCAA - Maths	Rachael Hill, PETAA
2:35-3:30	Return to main conference space to participate in **sharing session.**			
3:30-3:45	Wine and cheese **- Sponsor Talk: Street Science**			
3:45-4:30	**Sponsor Talk: Queensland Teachers Union** **Closing Address: Dr Dana Burfeind, Wellers Hill SS and 2024/25 ASTA iCubed Science Teacher Award Winner – Science competition as a way of building a culture of science culture at your school** **Thank-you and Closing: STAQ President: Professor David Geelan - Networking and Prize Draw**			

Presenter Name	Presentation Title	Abstract	Audience
Keynote Address: Dr Kym Fry, Griffith University	So, you want to get into modelling?	Mathematical modelling is not a new mathematical process; however, for many primary teachers, it can feel like unfamiliar territory. While senior secondary teachers have long guided students through Problem Solving Modelling Tasks (PSMTs), and global mathematics assessments frame problem solving within modelling cycles, the recent inclusion of modelling in the Australian Curriculum: Mathematics has taken some teachers by surprise. An explicit focus on modelling has historically been absent from Queensland primary classrooms and from teacher training. Primary teachers are now expected to teach, assess, and report on their students' proficiency in mathematical modelling to solve practical problems. This expectation is significant: modelling is widely recognised as a critical competency for future careers where complex, real-world problems demand adaptive thinking and collaboration. Modelling offers inclusive opportunities for diverse learners by valuing multiple solution pathways, encouraging creativity, and connecting mathematics to authentic contexts that reflect students' cultural and social experiences. With few researchers exploring modelling in primary mathematics classrooms, this researcher collaborated with a Year 4 teacher-colleague to investigate what modelling might look like in a primary classroom and to learn how students might engage with modelling experiences for the first time. This presentation will share practical and emerging insights from this work, including classroom examples that illustrate the modelling process (ACARA, n.d.). It will also highlight opportunities to foster critical and creative thinking through authentic problem-solving contexts, while supporting diversity and preparing students for the demands of an increasingly complex world.	All
Closing Keynote: Dr Dana Burfeind Science Specialist Teacher, Wellers Hill State School	Science competition as a way of building a culture of science culture at your school	Young kids are naturally curious and creative scientists. However, in schools we often do not have the scope to explore all of their interests. School-based science competitions can be an opportunity to let children explore their interests and curiosities. In this presentation, I will give a case study of how we have created an inclusive school-based science competition that has students and their families excited about science all year. The competition engages families and the broader community in creating a culture of science at our school. I will also discuss how we leverage our community engagement to promote students entering the STAQ Queensland State Science contest.	
Nerida McCredie, Australasian Problem Solving Mathematical Olympiads (APSMO) Inc	The Power of a Positive Start K-2	Designed for those teaching Kindergarten to Year 2, this session will address commonly held myths about mathematics and early learners, outline the reciprocal link between teacher enthusiasm and teaching quality, and promote problem solving for young learners as an effective strategy for mathematical engagement and success.	K-2 Maths + Teacher Aides
Tierney Kennedy, Kennedy Press Pty Ltd	Unpacking worded problems: why most strategies don't work and what to do instead	Why do kids freeze up when they hit word problems in NAPLAN despite all our careful teaching on what to do? And more importantly, what can we do instead? In	Yrs 3-6 maths

		this session we will unpack problems, as well as learning to use two specific strategies: “partition it” and “relationship tables”.	
Cathryn Menzler, QCAA Science	Planning for implementation of v9.0 Australian Curriculum Science	Are you in the planning stage of implementing Australian Curriculum v9.0 Science? This workshop provides an opportunity to explore the advice and resources that the Queensland Curriculum and Assessment Authority offer to support you. We will explore together how to use these resources to: • identify the changes from AC v8.4 to AC v 9.0 • plan an assessment program that includes a range and balance of quality assessment • consider planning connected units.	P-6 Science
Carly Millichap and Alana Bandholz, Brisbane Catholic Education	Making Maths Click: Digital Approaches for Primary Classrooms	Discover how digital tools can transform mathematics learning in early years and primary classrooms. This session explores practical strategies for integrating technology to build conceptual understanding, foster engagement, and support problem-solving. Participants will gain hands-on ideas to enhance numeracy through interactive apps, virtual manipulatives, and collaborative platforms.	K-6 Maths
Monique Russell, QAMT	Calculation Confidence! The 'must-use' manipulatives to create confident calculators.	We all want our Prep to Year 6 students to be equipped with fluent mental and written calculation strategies. What must-have manipulatives can you use to build these critical skills? Get ready to be hands-on in this session and build your students' capability.	K-6 Maths + Teacher Aides
Dr Dana Burfeind Science Specialist Teacher, Wellers Hill State School	Developing and using symbol libraries for Science	Using simple symbols can be a simple way for students to draw quick diagrams to represent their scientific understanding. In this practical workshop, I will show how to co-create a symbol library with a class and then how to use those symbols for students to communicate their observations. Using common symbols can make it easy for teachers to quickly scan for science understanding. This technique works in most learning areas but is particularly useful teaching physical science areas.	P-6 Science
Sue Carter, Maths in Schools, University of Adelaide	Creating confident mathematical thinkers.	Nurture student curiosity, creativity and confidence to develop mathematical thinkers. Through building a positive mindset explore various approaches featured within the Maths in Schools online courses to help you develop mathematical thinkers that see mathematics as a purposeful and worthwhile endeavour. Be inspired with practical examples and strategies to implement in your teaching of Mathematics.	P-6 Maths
Rachael Hill, PETAA	Cross Curriculum Literacy Connections: Literacy Teaching within Science	High-quality informational and narrative science texts play a central role in the process of helping students build background knowledge, curiosity, and a positive disposition toward scientific thinking. Building students’ deep understanding of scientific vocabulary and core concepts is essential—not as isolated word lists, but through purposeful engagement with the ideas those words represent. Quality instruction about vocabulary and writing within the field of science gives students the tools they need to understand, communicate and genuinely think like scientists. This workshop will explore the use of mentor texts to support learning.	P-6 Science
Megan Gim, Speech Language Pathologist, University of Queensland and Ms Violet	Vocabulary Crunch: Designing and implementing a mathematics vocabulary intervention	This presentation aims to share the process of designing and implementing a mathematics vocabulary intervention in a year one classroom. The intervention, known as Vocabulary Crunch, was co-designed by a group of teachers and	K-2 + Teacher Aides

Song, Our Lady of Mount Carmel School, Coorparoo		speech pathologists from a Brisbane school, under the guidance of a research team at the University of Queensland. The presentation will focus on practical aspects of the study, including the use of co-design in education, vocabulary target selection, explicit vocabulary instruction, and effectiveness measures for mathematics vocabulary in the early primary years.	
Brenda Kettle, Belmont State School	Practical activities to boost number sense	Strong number sense developed in the early years is a key building block of mathematical success. In this practical workshop you will be immersed in strategies and routines that engage students and deepen their conceptual understanding. We examine how to enhance students' reasoning as they engage with key mathematical representations and discuss number magnitude and relationships.	K-2 + Teacher Aides
Sue Carter, Maths in Schools, University of Adelaide	Create Curiosity unlocking maths with Micro:bit games	The 'Game with No Rules' is an engaging hands-on activity for students in Years 3-6. Build curiosity playing a simple game using a BBC micro:bit and a 5x5 game board to explore chance experiments, random movement, recording data and calculating scores. Challenge students to design a maths-focused game by adapting or creating their own scoring system and developing clear instructions for their game.	Yrs 3-6 STEM
Paulina Sliedrecht, QAMT	Common Data, Many Pathways: Designing Statistical Investigations Across Year Levels	In this hands-on workshop, participants will collaboratively design a statistical investigation task using a common dataset — student votes for the CBCA Picture Book of the Year. Using the AC9 framework for statistical investigations, we'll unpack how students move from informal exploration to guided and independent inquiry, and how tasks can be differentiated to reflect this progression. Together, we'll explore how the same dataset can be used to demonstrate the achievement standard across multiple year levels, making it ideal for planning in multi-age classrooms. Participants will leave with adaptable task ideas, a clear understanding of the AC9 statistical investigation structure, and strategies for engaging students in meaningful, curriculum-aligned data investigations	P-6 Maths
Libby Foley, QCAA	Building confidence in creating quality Mathematics assessment questions	Are you curious about how to design quality supervised assessment questions aligned to the Australian Curriculum v9.0: Mathematics? This practical workshop will support you to build confidence in creating questions with different levels of complexity and familiarity for supervised assessments. Through hands-on activities and discussion, you will develop an understanding of how complexity and familiarity are used in question design. You will then apply strategies to analyse sample question resources for Prep–Year 6.	P-6 Maths
Alwyn Powell , Adjunct Lecturer University of Southern Queensland	Simple circuits for middle/upper primary school	My session will be making simple circuits suitable for middle/upper primary school. It includes constructing components from materials easily available including identifying everyday resources to make simple circuits. Discussion will focus on series circuits, short circuits, wire components, insulation, batteries, switches and LED lighting whilst constructing circuits and applying them to a STEM model. All materials will be supplied along with black line masters.	All STEM
Mary Rafter, University of Queensland	The Language of Investigation	Inquiry and investigations are the foundation of creative and critical thinking. For many years Cows Moo Softly has been the mantra for a fair test in science. And it	3-6 Science

		has been very successful. As students develop, they require further support in developing their scientific investigation skills. This includes learning the language of investigation. It is now time to turn CMS into an understanding of a control, independent variable and dependent variable in an experimental investigation, what data to collect and what the data means. While the students may inquire into their own personal interests, the skills of investigation must be taught. This workshop invites you to play with some data to review your own understanding of the language in order to support students in transitioning to more sophisticated scientific language.	
Harry Kanasa, Griffith University	The Yugambeh number system and other indigenous maths concepts	We'll explore number and counting systems from around the world with a focus on the Yugambeh (Logan to Tweed river) number system. We'll also explore direction and how Indigenous and Western systems differ. We'll be using learning resources you can immediately use in your classroom.	All STEM