



Primary Teachers of Mathematics Conference

Saturday 21st September 2019

PARKSIDE PRIMARY SCHOOL
Robsart Street, Parkside



KEYNOTE - Tierney Kennedy – Back to Front Maths

Inspiring Insatiable Curiosity

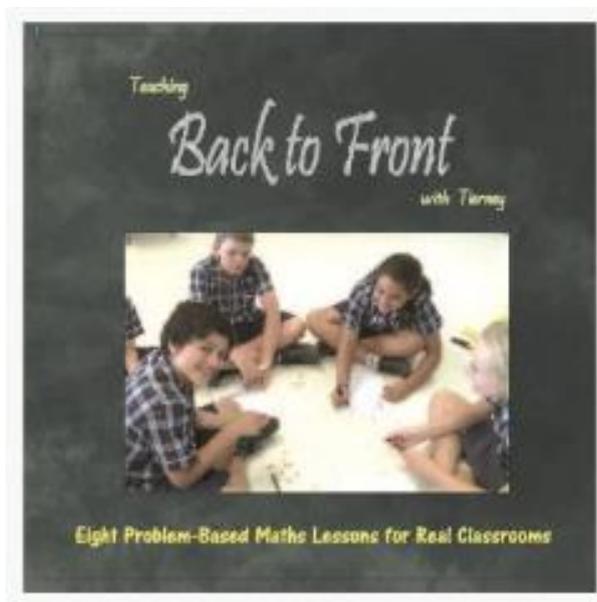
Abstract:

Teaching the Love of Maths is tricky but is more important than just about anything else we can do as teachers. To inspire curiosity, we need to start with asking a question that is not very easy to answer. To drive students forward, we need to create the Need to Know. Engagement and persistence are created when kids want to find out more.

Bio:

Tierney is the current Vice President for QAMT and works as an independent mathematics consultant. Last year she worked with close to 20% of the State primary schools in SA, helping to improve their student results on a large scale, and her company was recently recognised as a preferred provider for Numeracy professional learning by the Government of South Australia.

Tierney is the author of over 50 books for teachers, including the Back-to-Front Maths and Interventions in Mathematics series. Her most recent research focuses on how to close the gap for low-performing students by combining challenging mathematical tasks with conceptual-change questioning.





The Mathematical Association of South Australia Inc

PROGRAM 2019

Saturday 21st September

| | |
|---------------------|---|
| 8.15 am – 9.00 am | Registration / Gym / tea & coffee available Visit Trade Displays |
| 9.00 am – 9.30 am | Welcome and Housekeeping / Gym Rebecca Garrett , MASA President |
| 9.30 am – 10.30 am | Keynote Presentation / Gym Tierney Kennedy - Back to Front Maths Inspiring Insatiable Curiosity |
| 10.30am – 11.00 am | Sponsorship Speaker - Credit Union SA Morning Tea / Gym / Visit Trade Displays |
| 11.00 am – 12.00 pm | Session 1 / Monro & Bradman Building |
| 12.00 pm – 1.00 pm | Session 2 / Monro & Bradman Building |
| 1.00pm – 2.00 pm | Lunch / Gym / Visit Trade Displays |
| 2.00 pm – 3.00 pm | Session 3 / Monro & Bradman Building |
| 3.00 pm – 4.00 pm | Networking and Nibbles / Gym |

| | | | | | | | |
|---|-----------------------|---|---|---|--|---|--|
| 8.15am Registrations | | | | | | | |
| 9.00am - 9.30am Welcome and Notices Rebecca Garrett, President, MASA | | | | | | | |
| 9.30am -10.30am Keynote – Tierney Kennedy – Inspiring Insatiable Curiosity | | | | | | | |
| 10.30am -11.00am Morning Tea | | | | | | | |
| 11am 12 noon | Workshop 1 | 1.1 Exploding Dots Sam Capurso MASA | 1.2 Using Picture Books to Teach Big Ideas in Number Ann Ruckert SA Dept for Education | 1.3 The Joy of Ridiculous Questions Tom Colebatch Pembroke School | 1.4 Proven strategies for effective understanding Bill Jerram MASA | 1.5 Practical and hands-on strategies to add to your teaching repertoire David Shigrov Seymour College | 1.6 Motivating students and providing cross-curricular links with Top Trumps Simon Crocker Wynn Vale School |
| Year Level Focus | | R-7 | F-7 | 3-8 | 6-7 | | 2-7 |
| 12 noon 1pm | Workshop 2 | 2.1 Concept tasks to help promote Positive Mathematical Mindsets Sarah Centofanti Westbourne Park Primary School | | 2.2 Sharing is caring Christine Lenghaus TAFE Gippsland | 2.3 What if humans didn't have 10 fingers? Raiph McPherson Seaton High School | 2.4 Serious Extension for gifted Students Tierney Kennedy Back to Front Maths | 2.5 Lockbox challenge with Pattern Puzzles Mary-Anne Rischmueller SA Dept for Education |
| Year Level Focus | | R-7 | | 3-6 | 6-7 | Any | R-3 |
| 1.00pm – 2.00pm Lunch | | | | | | | |
| 2pm 3pm | Workshop 3 | 3.1 Statistics Sam Capurso Westminster School | | 3.2 Engaging with data collection, representation and interpretation Desiree Gilbert AISSA | 3.3 Tricks, Tips and Gimicks Jo Kellaway ASMS | 3.4 Intervention Strategies that actually work to catch kids up Tierney Kennedy Back to Front Maths | 3.5 Thinking Multiplicatively : from ones to units Helen Booth AMSI |
| Year Level Focus | | 4-9 | | F-2 | All | Any | 2-6 |
| 3.00pm – 4.00pm Networking and Nibbles | | | | | | | |

| NAME & ABSTRACT | SESSION | YEARS |
|--|-----------------------------|------------|
| <p>Helen Booth / Australian Mathematical Science Institute Thinking Multiplicatively: from ones to units Multiplicative Thinking is the 3rd big idea in number and one that many students and adults struggle to understand. Yet it is extremely important in developing greater understandings and skills in further mathematics. This workshop explores ideas, strategies and games for developing unitising, the concept at the base of multiplicative thinking.</p> | <p>3.5 Room M4</p> | <p>2-6</p> |
| <p>Sam Capurso / MASA/ Westminster School Exploding Dots This presentation will consider my experience with Exploding Dots, a global phenomenon created by Professor James Tanton of the Mathematical Association of America. Tanton says, "Over 5 million people – students, educators, countries and territories across the planet are united in the stunning wonder of a common piece of school mathematics." Join me in exploring a mathematical model that connects addition, subtraction, multiplication and division – in number and in algebra – which turns the traditional algorithms taught and learned in these domains on their head.</p> | <p>1.1 Room M2</p> | <p>R-7</p> |
| <p>Sam Capurso / MASA/ Westminster School Statistics We are all consumers of information. As educators, we have a responsibility to develop within young people the power of discernment when it comes to statistics reported. The workshop will explore promoting rich discussions about statistics and facilitating analysis of the data collection process.</p> | <p>3.1 Room M2</p> | <p>4-9</p> |
| <p>Sarah Centofanti / Westbourne Park Primary School Concept Tasks to help promote Positive Mathematical Mindsets Exploring the ability to use concept driven tasks to help with student engagement, providing productive struggle for all students while also helping improve and develop positive mathematical mindsets. This workshop will require group participation in maths tasks and professional discussion about mathematics. The strand focus is number and algebra.</p> | <p>2.1 Room M2</p> | <p>R-7</p> |
| <p>Tom Colebatch / Pembroke School The Joy of Ridiculous Questions Ridiculous questions, remarkable answers: How to plan sequence and support learning through problems that don't need to be solved, and how to engage students in mathematics absurdly.</p> | <p>1.3 Room M3</p> | <p>3-8</p> |
| <p>Simon Crocker / Wynn Vale Primary School Motivating students and providing cross-curricular links with Top Trumps. Top Trumps is a numerical card game originating in the late 1970's and the 1980's. Top Trumps can be an engaging game to incorporate into your lessons with endless possibilities. In this workshop, participants will be exposed to the original game, participate in adapted mathematics tasks using the cards, and explore cross-curricular links.</p> | <p>1.6 Room B2</p> | <p>2-7</p> |
| <p>Desiree Gilbert / AISSA Engaging with data collection, representation and interpretation Years F-2 This practical workshop for teachers of young children will engage participants in the content and pedagogies involved in authentic data investigations. A focus will be placed on teaching and learning that support the development of conceptual understanding, problem-solving and reasoning. The Australian Curriculum F-3 will be interrogated to identify the explicit and implicit knowledge, understanding and skills related to statistics.</p> | <p>3.2 Room M3</p> | <p>F-2</p> |
| <p>Bill Jerram / MASA Proven strategies for effective understanding An 8-point program showing how teachers can effectively teach 8 important and challenging aspects of Maths to enable students to progress.</p> | <p>1.4 Room B1</p> | <p>6-7</p> |

| | | |
|---|--|--------------------|
| <p>Jo Kellaway / ASMS Tricks, Tolls and Gimicks A taste of a range of software; all free, that can be used in your class to enthuse and engage students while looking at building skills and monitoring progress. We will look at the more familiar like Geogebra and Desmos and the less common like Quizlet Live. Bring your laptop and have some fun.</p> | <p>3.3 Room B1</p> | <p>All</p> |
| <p>Tierney Kennedy / Back to Front Maths Serious Extension for gifted students (any age) When students are working multiple years ahead of the class it can be difficult to know what to do. We want to extend them, but not necessarily by increasing the content level in questions. This workshop will include: what kind of questions and problems to set, how to adjust your existing resources to make the questions more complex, and also how to create resilience and persistence in students who are used to being right all the time.</p> | <p>2.4 Room M1</p> | <p>Any</p> |
| <p>Tierney Kennedy / Back to Front Maths Intervention strategies that actually work to catch kids up (any age) Some strategies that we implement in schools actually have a negative effect on students. This workshop will introduce you to six well-researched strategies that add between 5 and 18 months gain on standardised testing, help you think through common issues such as the best use for teacher aides, and present practical ideas that you can pick up and use without effort..</p> | <p>3.4 Room M1</p> | <p>Any</p> |
| <p>Christine Lenghaus / TAFE Gippsland Sharing is caring How many, or sharing? This hands-on workshop will focus on division (not only as a turn-around fact based on multiplication) and develop multiplicative thinking using visual strategies. Lots of ideas/resources to use in your classroom to share!</p> | <p>2.2 Room M3</p> | <p>3-6</p> |
| <p>Raiph McPherson / Seaton High School What if humans didn't have 10 fingers? What would our number system look like? This workshop will demonstrate non-base 10 abacus activity recently run at Seaton High School for a Primary Mathematics Enrichment Day. Students in Grade 6 were very successful at exploring different bases and got lots of practice at numerical operations and division and remainders while having lots of fun with simple materials.</p> | <p>2.3 Room B1</p> | <p>6-7</p> |
| <p>Mary-Anne Rischmueller / SA Department for Education Lockbox challenge with Pattern Puzzles A hands-on workshop where participants will work in triads to 1) solve a pattern puzzle 2) discover the secret code 3) unlock their padlock to open the Lockbox where a surprise awaits, using some of the teamwork ideas and Pattern puzzles around.</p> | <p>2.5 Room M4</p> | <p>R -3</p> |
| <p>Ann Ruckert / SA Department for Education Using Picture Books to teach the Big Ideas in Number The Big Ideas in Number provide the foundation for students' mathematical achievement and should be the focus for targeted teaching in maths classes from F - 10. Many difficulties faced by students in secondary maths classes can be traced back to limited understanding of these big ideas. Student engagement in the maths classroom can be effectively increased by using picture books to complement concepts being taught. This workshop will provide examples of picture books that can be used to complement the teaching of each of the Big Ideas in Number, with associated activities which teachers can take away and use.</p> | <p>1.2 Room M1</p> | <p>F -7</p> |
| <p>David Shigrov / Seymour College Practical and hands-on strategies to add to your teaching repertoire Using Tarzia for introducing, during and following a topic. ThatQuiz - online practice and formative monitoring of progress. Post-It notes and their place in hands-on experiences to assist with learning and brainstorming.</p> | <p>1.5 Room M4</p> | <p>5.8</p> |

Map / Rooms for Workshops – (street parking available – no time restrictions for Saturday)

