

11th Annual Primary Teachers' Mathematics Conference

Saturday 25th May 2019
8:50am – 3:30pm

ACU (Melbourne Campus) 115 Victoria Pde, Fitzroy

Cost \$330 (incl. GST) – includes lunch, afternoon tea, certificate of participation and all session notes.

Our conference program aims to assist teachers in the development of professional knowledge, practice and engagement concerning maths education. Our workshops highlight the kinds of topics which are currently important, and of interest to teachers and mathematics leaders, such as engaging students in challenge, the maths proficiencies, using contexts for learning, and a whole lot more.



We are delighted that Dr Leicha Bragg will be presenting the keynote at our 11th Annual Primary Teachers' Mathematics Conference. Leicha is a Senior Lecturer in Mathematics Education at Deakin University. She has worked in education with preservice and practising primary mathematics teachers for over 20 years. Leicha has an international reputation for her work in developing engaging educational tasks for students. She is the author of three teacher resource books, including two on geocaching, and one on engaging with mathematics through picture books. Leicha's current research projects focus on: teaching mathematics for social justice; online adult learning of numeracy; and, champions of mathematical reasoning.



This is an activity of the Mathematics Teaching and Learning Centre (MTLC) at Australian Catholic University (Melbourne Campus)

Features of the day

- » High-quality presenters.
- » Choose one workshop in each session block from a rich array of options.
- » Insights from research will be complemented by the practical experience and understandings of workshop presenters.
- » Handouts, certificate, lunch, and afternoon tea provided. Tea and coffee available from 8:20am
- » Handy location close to city, easy access by public transport (115 Victoria Parade, Fitzroy).



“Another great day full of experiences, ideas and information.”

“Excellent day! Very well organised with exceptional speakers and venue.”

“Great way to spend the day. I have taken away new ideas to engage children to think and question in mathematics.”

THE PROGRAM

Session	Presenter	Topic	Yr Level
Keynote: 8:50am – 10:00am			
Keynote	Leicha Bragg	Teaching Mathematics for Social Justice – The OECD Learning Framework 2030 identifies that new solutions are needed in a rapidly changing world. The challenges impacting wellbeing worldwide are identified as environmental, economic, and social ones. News articles identify the nature and severity of these type of world and local issues like the displacement of people, world famine, and river water mismanagement. Transforming our future requires mathematics to help our students understand the complexity of social justice issues so that they can be more active citizens in the world where they reflect, anticipate, and act. I have engaged with my colleagues at the University of British Columbia, Canada, about ideas for teaching mathematics for social justice. In this presentation, I will present tasks for your future exploration and share stories of the challenges and rewards that these tasks offer where mathematics is used as a tool to understand these critical issues that face the world today.	F – 6
Session A: 10:10am – 11:30am			
A1	Colleen Monaghan	Problem Solving Without Numbers – This workshop is for teachers looking for ideas to get students thinking about problems before they jump in to solve them. If you want to ensure they engage with the problems you present, then this session is for you. We will look at using numberless problems to make problem-solving work for your students. The problems presented will show how much dialogue and thinking can occur before they begin to solve problems. We will investigate steps that can be used to scaffold student learning, leaving you excited to trial them in the classroom.	F – 2
A2	Doug Clarke & Anne Roche	Building Number Sense in the Early Years – Number sense can be thought of as thinking of numbers in a sense-making way. Many children develop creative and efficient strategies when operating on numbers, but a focus on formal algorithms may deter students from using their number sense. This workshop will explore ways of using estimation, mental computation and number relationships to help young children deal with numbers strategically and flexibly. We will actively involve participants in engaging activities and ideas which we have found helpful in building number sense.	F – 3
A3	Chris Terlich	High Impact Rich Tasks – This hands-on workshop will give participants the opportunity to explore rich learning tasks, using resources that should be easily accessible in all classrooms. Many of these tasks can be used across a broad range of learning levels while allowing access for all students. This session is suitable for teachers across all year levels who are interested in creating a positive learning culture in mathematics lessons.	F – 6
A4	Jan Walker & Joanna Pringle	Leaping into Learning Progressions – This workshop is designed to support teachers in identifying the developmental steps outlined in the Victorian Curriculum and Assessment Authority Numeracy Learning Progressions. Participants will unpack the Progressions and explore how they can be used to identify the numeracy capability of students and develop targeted teaching and learning programs. Attention will be paid to how the Progressions relate to the Victorian Mathematics Curriculum documentation.	F – 6
A5	Russell McCartney	Engaging Problem Solving Tasks Using Cuisenaire Rods – During this session, you will have a chance to explore the use of “Cuisenaire Rods” to deepen student understandings in number and measurement. This workshop is for teachers who are interested in using these materials in their classroom to provide rich learning experiences for students.	1 – 6
A6	Jill Brown & Mel O'Reilly	Mathematical Reasoning – Mathematical thinking and reasoning are the basis of understanding mathematics. In this workshop, participants will explore several tasks developed and used by us to promote student collaboration, engagement, motivation, student mathematical noticing, and mathematical habits of mind. We will explore how concept cartoons can be used both to introduce a task in a motivating and engaging way and to support student reasoning post-task. Participants will leave with a range of tasks and insight in to increasing mathematical reasoning by their students.	3 – 6
A7	Ann Downton	Portions of Portions – How do we encourage students to think multiplicatively and proportionally in the upper primary years? In this workshop we will investigate this question using a range of practical tasks relating to everyday contexts and share some reactions from students and their work samples collected during trialling of the tasks.	4 – 6
A8	Stephanie Nitschke & Dylan Holland	Venturing into the Pit of Confusion - An Investigative Approach to Mathematics in Upper Primary – 'Maths is hard' is a common phrase heard in upper primary school by many students and parents alike. Imagine the change in mindset if this phrase was viewed as a motivation rather than a hinderance. This workshop focuses on developing a classroom culture where all students celebrate challenge and form mathematical ideas by grappling with substantive tasks. We will explore activities which can engage and challenge all students, and we will share stories from the classroom where they have been used.	5 – 6
Lunch: 11:30am – 12:10pm			
Session B: 12:15pm – 1:35pm			
B1	Ann Downton	Challenging Tasks in the Early Years: What Might They Look Like? – Engaging children in the early years in tasks that challenge and encourage persistence and resilience can be a 'challenge' for teachers. This workshop offers an opportunity to experience a range of challenging tasks, consider the pedagogical approaches involved, and the learning opportunities that such tasks provide. Stories and examples from the classroom will also be shared.	F – 2
B2	Judy Gregg & Genovieve Fuser	Proficiencies - The 'Action' of Mathematics – To be a true mathematician one needs to 'engage in' and 'do' mathematics. Building mathematical proficiency involves conceptual understanding and procedural fluency. These are not separate, but rather closely connected to enhance understanding in mathematics. This workshop will investigate fluency, problem solving, reasoning and understanding - the 'verbs' that underpin the learning of the mathematical content. We will explore a variety of activities that embed these actions with the content to enable real mathematics to occur.	F – 6
B3	Russell McCartney	Exploring Shapes and Geometric Reasoning – During this session, you will have a chance to explore 2D geometry and properties using pattern blocks and paper folding. This is a hands-on workshop for teachers who are looking to develop students' understanding using engaging tasks and who are keen to get creative with pattern blocks and paper folding in their classrooms.	F – 6

B4	James Russo & Toby Russo	Narrative-First Approach: Teaching Mathematics Through Picture Story Books – Often, an attempt to develop engaging tasks involves first determining the meaningful mathematics to be learnt and then creating a ‘mini-narrative’ as a vehicle for exploring these concepts. However, in our experience, the more enjoyable and deeply developed the narrative, the more engaging the task is for students. We demonstrate how there might be value in inverting the process - that is, begin with rich narratives, and then map the mathematics - by creating mathematical tasks embedded in examples of well-known children’s literature. Participants will be given an opportunity to develop their own mathematical tasks using this ‘narrative-first approach’.	F – 6
B5	Charles Lovitt	Anatomy of Some Favourite Lessons – After teaching for what seems 130 years, there are certain lessons (my favourites) that just always seem to be successful and put a smile on the kids’ faces (and also on mine). But what makes them ‘tick’? Can we pull these lessons apart to identify the features and qualities that make them and other lessons successful?	2 – 6
B6	Doug Clarke & Anne Roche	Building on Number Sense in Upper Primary – In developing a sense of number, our students need to have place value (including decimal place value), and increasingly build an understanding of the meaning of operations. This is they develop efficient strategies for managing numerical situations, including estimating and judging the reasonableness of answers. Student-invented algorithms can arise in this process, too. Please join us as we work through a range of engaging classroom activities which have the potential to meet these aims.	3 – 6
B7	Aylie Davidson	Planning and Assessing Mathematical Reasoning – What does “reasoning” mean? How do I know when my students are reasoning? How can I elicit student reasoning? The reSolve Mathematics by Inquiry special topic “Assessing Mathematical Reasoning” is designed to support teachers in answering these questions. In this hands-on workshop, we will explore reSolve materials including the three key reasoning actions (analysing, generalising, and justifying) and the assessing mathematical reasoning rubric. We will also consider approaches to embed mathematical reasoning into our daily planning and teaching routines.	3 – 6
B8	Matt Sexton	Convince Me! Focusing on more than just answers in maths lessons – By only focusing on answers when engaging with mathematics tasks, narrow perceptions of mathematics might form. This workshop will share mathematics activities that require students to go beyond just answers and focus more on ways of convincing self and others of mathematical thinking. Matt will also share a framework he uses in his own teaching that supports students in their pursuit to convince when working mathematically. This workshop is suited to teachers who are new to convincing practices in maths lessons.	3 – 6
Afternoon Tea: 1:35pm – 1:55pm			
Session C: 2:00pm – 3:20pm			
C1	Colleen Monaghan	Fun and Engaging Tasks in Counting and Place Value – This hands-on workshop will suit new and experienced teachers who are looking for more ideas to use within their mathematics sessions. Not only will it equip participants with a variety of games, tasks and picture storybooks to use with their students, but it will also highlight the importance of using these resources and ideas to develop understanding and fluency when teaching counting and place value.	F – 2
C2	Jill Brown	Everyone Loves Geometry: Don’t they? – If you or your students don’t think geometry is fantastic, then this workshop is for you! Teachers who want to deepen their own geometric knowledge and are looking for ways to better engage students with geometric ideas should attend. Using a range of concrete materials we will explore both 2D figures and 3D solids. The language of geometry (everyday and mathematical) and reasoning about interconnected relationship and definitions will be highlighted.	F – 4
C3	Leicha Bragg	Utilising the Birth to Level 10 Numeracy Guide to support numeracy across the curriculum – The Birth to Level 10 Numeracy Guide (DET) was created to help educators and families learn about dynamic approaches to support children and young people’s numeracy with a particular focus on the four proficiencies, as well as, enhancing numeracy through the High Impact Teaching Strategies (HITS). This workshop offers a comprehensive overview of the Birth to Level 10 Numeracy Guide and its resources, with recommendations on key aspects of how you can engage with the guide effectively to support your students’ numeracy.	F – 6
C4	Claire McMahon	Dyscalculia: Identifying and Tailoring Teaching for Students with Individual Learning Needs in Numeracy – Individual differences in mathematics have to be considered in order to help students achieve success. This workshop will review research, particularly looking at the perception and understanding of Dyscalculia. Assessment options, effective teaching strategies in the classroom, and hands on practical activities will be shared. This workshop is suited to all teachers, Individual Learning Needs educators, and mathematics leaders.	F – 6
C5	Charles Lovitt	Engineering ‘Aha’ moments – One of the really satisfying moments for us as teachers is when students say– “aha – I get it!”. How can we activate strategies to increase the chances of this happening? Importantly the ‘aha’ moment is theirs alone - we cannot have it for them. We can increase the chances of it happening by some carefully selected activities and techniques, which Charles will share in this workshop.	2 – 6
C6	James Russo & Toby Russo	Five Principles of Educationally Rich Mathematical Games – Mathematical games are widely used in the primary classroom; however, not all games are equally valuable. How might teachers decide which specific games to introduce? What makes a ‘good’ mathematical game? This workshop will present five principles of educationally-rich games to support teachers and a variety of examples of games to help teachers unpack the five principles that will be explored. We will then provide opportunities for teachers to evaluate “go-to” games used in their own classrooms, and explore how they might consider modifying these games to enhance their educational value.	2 – 6
C7	Jill Cheeseman	Inspiring a Young Escher – As anyone who has been to the National Gallery of Victoria to see the exhibition of Escher’s work will attest, the beauty of geometry is breathtaking. In this workshop, we will take a very practical approach to the creation of beautiful and mathematical creations. Ways in which children can be encouraged to be curious and original will be shared in the hope that the ideas will translate directly into the classrooms of participants	3 – 6
C8	Chris Terlich	Wonderful Warm Ups! – This workshop explores a variety of games that are designed to get students thinking mathematically. These activities can be used as warm-ups, or can be extended to be explored as a complete learning task. Participants will be positioned as the learner to explore these games using materials such as dice, cards and counters. This workshop is aimed at middle to upper primary school levels, but these tasks could easily be adapted for any year level.	3 – 6
Prize Draws and Conference Concludes: 3:30pm			

TAX INVOICE

11th Annual Primary Teachers' Mathematics Conference

Saturday 25th May 2019

Australian Catholic University 115 Victoria Parade, Fitzroy VIC 3065 ABN 15 050 192 660

Date of Issue: 6th March 2019

School _____ Phone Number _____

School Address _____ Postcode _____

Description of service	Quantity of participants	Cost p.p. (excl GST)	GST p.p.	Total GST	Total cost
Participant registration to attend 11th Annual Primary Teachers' Mathematics Conference on Saturday 25th of May 2019		\$300	\$30		

The above information will form a TAX INVOICE upon payment for this conference. Individual invoices will not be issued for total amounts under \$1000. Please note fees are non-refundable but are transferrable to another person.

Please fill in this registration form and send to:

Michelle Fabris, Australian Catholic University,
 Locked Bag 4115, Fitzroy VIC 3065
OR scan and email to michelle.fabris@acu.edu.au

PAYMENT METHOD (please tick)

CREDIT CARD (PREFERRED METHOD) <input type="checkbox"/>	EFT <input type="checkbox"/>
Step 1: Please pay online at: www.acu.edu.au/mathskonference (Tax receipt available immediately and place confirmed)	Step 1: Direct transfer to our account: <i>Name: ACU General Account / BSB: 082 451</i> <i>Acc No: 506 966 793 / Ref: 901731MTLC "School Name"</i>
Step 2: Send this page (tax invoice and registration form) and a copy of the Remittance to Michelle Fabris via post or email as above.	Step 2: Send this page (tax invoice and registration form) and a copy of the Remittance to Michelle Fabris via post or email as above.

REGISTRATION FORM

11th Annual Primary Teachers' Mathematics Conference

Saturday 25th May 2019

Participant's name	Email address	Year level	SESSION PREFERENCES		
			Session A	Session B	Session C
			1 st	1 st	1 st
			2 nd	2 nd	2 nd
			3 rd	3 rd	3 rd
			1 st	1 st	1 st
			2 nd	2 nd	2 nd
			3 rd	3 rd	3 rd
			1 st	1 st	1 st
			2 nd	2 nd	2 nd
			3 rd	3 rd	3 rd

- **It is essential that you receive confirmation of your enrolment by email prior to attending.**
 If you have not received confirmation within one week of making payment please contact Michelle Fabris.
DO NOT ATTEND WITHOUT CONFIRMATION.
- **Attendance at the conference is only confirmed when payment is received.**
- Please contact Michelle Fabris if there are any Medical Dietary Requirements for catering.
- Numbers are strictly limited. The sooner you register and pay, the better your chances of receiving your preferred workshops.

Registration closes on
 Wednesday 15th May
 2019 or when sessions
 are full

Please call Michelle Fabris on (03) 9230 8433 or email michelle.fabris@acu.edu.au for any queries.

Places are strictly limited. Registrations will close when capacity is reached. Please refer to www.acu.edu.au/mtlc for updated information.