

26 August 2020

AAMT webinars

Title: Exploring Geometric Algebra and STEM in your Browser: Free Online Resources for Assessment and Exploration



Date: August 27, 4 30- 5 30 pm AEST

Speaker: Stephen Arnold

Description: The Live Mathematics and STEM on the Web collection showcases some of the best free browser-based classroom ready teaching and learning tools for Mathematics and STEM.

From junior secondary algebra (Pythagoras' Theorem, area of a triangle, similar triangles) to seniors (calculus extensions) and some simple but powerful STEM applications, the tasks in the collection offer something for just about everyone - AND the showcase comes complete with step-by-step tutorials supporting teachers (and interested students) who would like to learn how to create their own live online activities

Register though [Zoom](#)

Title: Mathematics Lesson Study in Japan: A structured problem-solving lesson in congruent figures

Date: Sep 3, 2020 4:00PM - 5:30PM AEST

Speakers: Associate Professor Susie Groves, Dr Max Stephens, Professor Toshiakira Fujii, Professor Yoshinori Shimizu, Professor Akihiko Takahashi, Ms Naoko Matsuda

Description: AAMT and Tokyo Gakugei University are pleased to offer a webinar on the subject of Japanese mathematics structured problem-solving and Lesson Study. The webinar, developed as part of the IMPULS program at TGU, is based on a pre-recorded video of a mathematics lesson in a Japanese school: A structured problem-solving lesson in congruent figures. The video link will be sent to participants in advance of the webinar.

Session almost full

Register with the [online form](#)

Title: Time is of the Essence

Date: Sep 14, 2020 04:00 PM AEST

Speaker: Margaret Thomas

Description: Time is a confusing and complex topic for many children. While the curriculum focusses on the reading of clocks and calendars, research has shown that there is more to this topic than being able to 'tell the time'. This presentation explores the meaning of time and identifies four major Components of time that need to be comprehended to develop a deep understanding. A Framework of Learning and Teaching of Time is explained with ideas for lessons to suit primary school students.

Register through [Zoom](#)

AAMT is organising some more international webinars for September and October. Please keep informed via the [AAMT website](#) or Twitter.

Give a webinar as a professional learning activity

The aim of the AAMT webinar series is to facilitate the sharing of good teaching practices and innovations. AAMT would like to hear from anyone with expertise or experience that they would like to share with other teachers. Please contact Duncan at drayner@amt.edu.au

International initiatives

AAMT is working with some schools overseas to arrange joint online maths lessons. If anyone may be interested in exchanging a maths lesson by video with a teacher in China or Singapore, please get in touch. Students will need to be familiar with using the Zoom platform.

For information on the above, contact Duncan at drayner@aamt.edu.au

Improving mathematics outcomes in schools: Teaching by Mastery

The Australian Association of Mathematics Teachers (AAMT) is pleased to collaborate with Mathematics Education Innovation (MEI) and the National Centre for Excellence in the Teaching of Mathematics (NCETM) in the UK and Marshall Cavendish Institute (MCI) in Singapore to offer Australian maths educators a series of webinars on Teaching for Mastery. The webinars with MEI / NCETM will focus on the UK experience in transitioning from inquiry-based learning to a mastery approach and the impact on teaching. The webinars with MCI will

consider teaching approaches and resources in Singapore that are the basis of the Singaporean success in mathematics education.

Please register your interest in the Mastery series [here](#).

4650 free Maths resources for teachers / home schoolers from DQME

An enormous resource of 4650 original, stimulating and motivating maths problems/worksheets/applications developed and written by teachers and tested and retested in schools in 11 countries in 10 languages over the six year period of the EU funded DQME Projects I and II is to offer all teachers world-wide free access to DQME.

The materials are classified in topics, age group and language and you can download them and freely use them in your classes immediately!

How it works:

- Enter the webpage <https://directorymathsed.net/dqme/>
- Read the Data Privacy Policy carefully and then click on the *Accept* button
- Click on your country-language flag on the next page with all 11 countries' flags
- Click *Register Now* and fill in and *Submit* your details THIS IS ESSENTIAL to ACCESS ALL THE MATERIALS
- Click on *Material* to see the full list of maths problems/worksheets/applications in your language
- Use your email address and password to log in again in future.

More than 1000 people have registered in the past few weeks. Please email alan@cdnalma.poznan.pl if you have any problems or queries

Learning progressions in mathematics and science education

Australian Journal of Education

This open call invites submissions for a *Special Issue of the Australian Journal of Education* to be published in November, 2021.

Learning progressions seek to define and operationalise what it typically looks like for learners to move from early knowledge, skills and understandings to more advanced knowledge, skills and understandings within a subject domain. As such, they offer a promising framework for bridging the theory-to-practice gap and have become increasingly popular in classroom practice, and a growing focus in educational research. Challenges have emerged in defining, assessing, modelling and the practical implementation of learning progressions. Additionally, research into the longer term effects of learning trajectories on student learning is warranted. This Special Issue, *Learning progressions/trajectories in mathematics and science education* will draw together researchers across both fields to

examine the role of learning progressions/trajectories in deepening teacher knowledge, improving student outcomes, and informing curriculum design.

View more information at [here](#)

Primary School Teaching in Singapore

Marshall Cavendish Singapore are offering a free pre-recorded webinar about primary school teaching practices in Singapore. This webinar is intended to support a new series of book titles on the Singapore master approach that is now stocked by AAMT.

Time: Thursday September 24, 5pm – 6 30 pm

Register [here](#).

Statistical Society of Australia

SSA National Schools Poster Competition (NSPC)

The NSPC is a PBL activity which encourages school students (and now also community members) to develop, implement and creatively report upon an investigation (in poster format) on any topic of interest to them.



Students are encouraged to conduct a small-scale version of a real-world investigation: collaborate, investigate, create!

Submissions due by 10 November

Resources

Maps to national and state curricula outcomes, including all 8 General Capabilities – see resources at site, including curriculum links.

View short videos of industry experts explaining how statistics works in practice to benefit health, education, industry, business and society.

Why not consider the Mini Electric Vehicle (EV) competition (devise your fastest mini EV from a kit – due 12 August) and explore to develop a best design – in so doing perhaps additionally produce an investigation to creatively report upon in poster format for the NSPC by the later submission date.

More information at <https://ssapostercomp.info>

Resources for home-based learning from the MEI

These short videos are intended to provide primary school pupils with interactive lessons while they are at home. Parents or teachers can choose how regularly they set them, but it is important that, within each batch, they are set in the suggested order. Most lessons are between 15 to 20 minutes long, each ending with suggested follow-up tasks. All lessons exemplify a teaching for mastery approach to maths. For each age group, a new batch of lessons is added here every week.

<https://mei.org.uk/archive?section=news&page=archive&newsid=731>

Grants for Schools

Schools Plus is a national charity that raises funding for schools in disadvantaged communities.

Schools eligible for support through Schools Plus have a value below 1000 on the Index of Community Socio-Educational Advantage (ICSEA). Check ICSEA values at www.myschool.edu.au

From July 20, eligible schools will be able to apply for a [Fair Education](#) or [Smart Giving](#) grant. Schools can also register a project on the [Fundraise Yourself](#) platform at any time.

Engaging maths with Dr Laura Tuohilampi

Dedicating her career to the repositioning of mathematics within the public to be approachable, exciting and highlighting it as an integral life skill, Dr. Laura Tuohilampi is an awarded Research Fellow at UNSW, Associate Professor in Mathematics

Education at the University of Helsinki, a published author, speaker and educator. Inspiring learners to look beyond the basics of maths, Laura has spent the last two decades working to break down the resistance often found towards the subject and skill among youth and adults alike.



45 Minutes of Maths Love

When: 31 August 2020 10AM UTC+10

Where: Online

45 Minutes of Maths Love is a virtual event that takes place monthly on Facebook. Aimed at teachers and educators, the sessions showcase the current mentality towards maths through public interaction on the streets of Sydney. Each session will engage with the members of the public, first delivering open mathematics problems drawn from everyday life. This interactive methodology effectively leverages the lack of confidence and interest many have around maths as a direct

skill and works towards a new way of teaching through inspiration and relatable lessons. The session concludes with a quick chat with a fellow industry professional.

Registration link is at bit.ly/45minsofmathslove1

Resilience and Disaster Recovery with Prof. Lisa Gibbs

When: 11 September 2020, 12:30 PM – 1:45 PM ACST

Where: Online

Free online Webinar with Professor Lisa Gibbs of University of Melbourne 1pm AEST Friday 11th September 2020 hosted by Elevo Institute

Register at <https://www.eventbrite.com.au>

NSW Events

5 Practices for Productive Mathematics Discussion

When: 26 August 2020 4:09PM - 5:00PM AEST

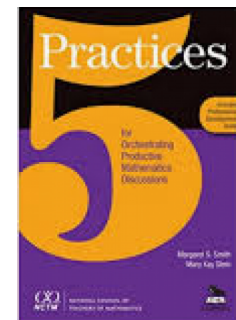
Where: Online via Zoom

Cost: \$41 members; \$61 non-members

The 5 Practices framework for orchestrating mathematically productive discussions in the classroom, and in an online environment, advances student thinking. With a focus on fractions in this one hour webinar, we will identify a set of instructional practices that will help teachers achieve high-demand learning objectives by using student work as the launching point for discussions in which important mathematical ideas are brought to the surface, contradictions are exposed, and understandings on a fractions concept are developed or consolidated. This pedagogical instructional practice has application in both the traditional classroom and in an online environment.

This course is presented by Fiona Foley and offered online only. Participants will be emailed details on how to access the sessions closer to the date of the first session.

Registration at: <https://www.mansw.nsw.edu.au/events>



Differentiation in the Secondary Classroom

When: 25 August 2020, 4:00 PM -5:30 PM AEST

Where: Online via Zoom

Cost: \$62 Member; \$92 Non-member

The **Differentiation in the Secondary Classroom** workshop will provide teachers with an understanding of differentiation while exploring different teaching approaches that can be easily implemented in any classroom. Provided in this workshop will be activities that are ready to use in the classroom.

This 90-minute online course will explore the key elements of differentiation and how they can be applied to teaching and learning and assessment strategies.

Registration at <https://www.mansw.nsw.edu.au/events>

WA Event

Classroom Corner

When: 27 August 2020 4:00PM - 5:15PM

Where: Online via Zoom

Cost: FREE members and \$20 non-members

Problem solving is one of the mathematics proficiencies. Do we teach problem solving strategies explicitly or teach through a problem solving approach? How important is mathematical language to problem solving? Can problem solving be differentiated easily? During this workshop you will have the opportunity to explore these questions and reflect upon your practices. There will be multiple hands-on activities for participants to try and take away. Electronic copies of activities and instructions will be provided to all participants.

Registration at <https://mawainc.org.au/>

Dealing With Differentiation

When: 1 September 2020 4:00PM - 5:30PM

Where: Online via Zoom

Cost: \$25 members \$50 non-members \$10 student members

This series of workshops will provide Years 4 to 7 teachers with pedagogical knowledge, activities and differentiation ideas in variety of mathematics content areas.

Registration at <https://mawainc.org.au/>

SA Event

Professional Learning for New Maths Leaders

When: 27 Aug 2020, 4:00PM - 6:00PM

Where: Online via Zoom

Cost: \$30 inc GST

2- hour online Professional Learning for New Maths Leaders

If you are a new Maths Leader, or perhaps been doing it a while but would like some pointers, Rebecca Garrett, MASA President and Head of Maths at Trinity College, is running a 2-hour professional learning session viz zoom on Thursday 27th August 4pm-6pm

See the [information sheet and registration form](#)

Specialist Maths with Deb Woodard-Knight

When: 10 August 5:00PM - 6:00PM

Where: Online via Zoom

Cost: \$15 Each one-hour session

This is a repeat of the session on teaching tips held at the MASA Year 12 Conference night in February. Techniques and tips on the teaching of Specialist Maths will be discussed and, hopefully, the session will also promote open discussion with others sharing ideas.

This is the final session (postponed from 6/8/20) in this 6 session series. Book for just one, or as many as interest you. Each one-hour session is \$15 and certificates of attendance will be issued.

For information and registration at <https://www.masaonline.org.au>

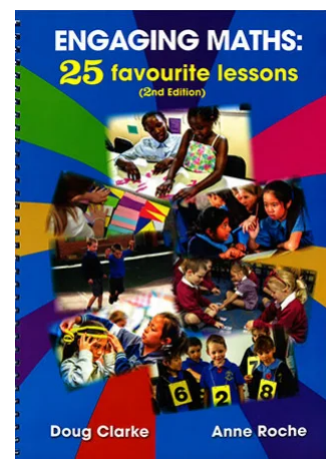
Please note we have had an outage with our book ordering system. To be sure that your order is processed, please also email your book requests to us at sales@aamt.edu.au

[featured resource] Engaging Maths: 25 Favourite Lessons 2nd Edition

Doug Clarke, Anne Roche

This full-colour volume aims to enrich the mathematical experiences of primary school students (and their teachers) through enjoyable, challenging and active lessons. Why not explore grid coordinates and compass directions through a piratical 'Treasure Island' map, or introduce simulation through a 'Throwing the globe' activity, or play a few rounds of 'Colour in decimats'?

Each lesson follows a similar pattern, beginning with an engaging 'hook'. There are clear instructions, interesting professional musings (including highlighting common misconceptions) and ideas for pulling the lesson together at the end. The lessons are complete, with reproducible activity sheets



and further professional references. Reflections from the authors highlight some of the key pedagogical aspects and assessment potential.

Engaging maths, indeed!

#CLA002 \$61.00 AAMT members \$48.80

<https://aamt.edu.au/Webshop/Entire-catalogue/Engaging-Maths-25-Favourite-Lessons-2nd-Edition>

Other news

The articles below were posted to AAMT's Facebook and LinkedIn pages and Twitter feed, and link to various sites:

[Maths: six ways to help your child love it](#)

[New plan to lure mid-career workers into STEM teaching](#)

[The irrationality of quick **maths** - Why is being quick at **maths** associated with being good at **maths**?](#)

[Research shows delaying school has little effect on children's maths and reading skills](#)

[Cambridge University Press Education - Maths underpins everything we do #Maths20Day http://ow ...](#)

[100 Days of Professional Learning](#)

[No STEM success without way more maths](#)

[Do the maths: why England's A-level grading system is unfair](#)

[Major quantum computational breakthrough is shaking up physics and maths](#)

[Hyderabad youth wins gold at Maths Olympics](#)

[Lisa Piccirillo: How I cracked a 50-year-old maths problem in a week](#)

[Teacher Staffroom Episode 17: Let's talk about maths](#)

[Challenging students in a collaborative maths competition](#)

[Doubling down on maths teaching](#)

[Teacher's bookshelf: Choosing maths tasks](#)

[Malappuram professor's online math exams is a hit worldwide](#)

[Do you fear maths?](#)

[Teacher hopeful who failed maths becomes top city artist](#)

[A levels 2020: Maths and English show signs of recovery](#)

[Challenging students: Real-world Mathematics](#)

[Visualise Maths Problems With the Japanese Multiplication Method](#)

Connect with AAMT on social networks for more links to online news, tools and tips!



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