



Welcome to the newsletter of the Australian Mathematics Trust (AMT). Our vision at AMT is that all young Australians have the opportunity to realise their intellectual potential in mathematics and informatics. Through this newsletter we want to provide teachers with inspiration and resources for the classroom and highlight the endless possibilities and creativity of mathematics and informatics.

2015 Australian Olympiad Teams Announced

The 2015 Australian Olympiad Teams were announced by The Hon Christopher Pyne MP, Minister for Education and Training, at a ceremony at Parliament House on 15 June. Team members of Informatics, Mathematics, Biology, Chemistry, Physics and the inaugural Earth Science were individually congratulated by the Minister.

In his speech the Minister commented on his government's ethos to support the Olympiad team members and to support the science subjects as a whole. He made two points in particular with regard to primary schools: to declutter the primary school curriculum and focus on mathematics and science; and, by 2017 for primary school teachers to graduate with a specialist training in mathematics, science or a language. He congratulated all the team members and wished them every success.

The master of ceremonies, media personality Adam Spencer who brought to the event his characteristic humour and warmth, acknowledged the hours of hard work put in by each of the students prior to them being selected.

The special address was given by Professor Cheryl Praeger AM FAA, who is Australia's most decorated female

mathematician. Both Adjunct Professor Mike Clapper, Executive Director, Australian Mathematics Trust, and Dr Gunilla Burrowes, Chair, Australian Science Innovations, acknowledged the team leaders and parents who put in many hours to support the team members through the selection process.

Adj Prof Clapper acknowledged the perfect scores of Alex Gunning and Ishraq Huda at the 2014 Olympiads and expressed the hope, as is seen in many international sporting events, that these Olympiads would see a surge in interest of maths and science. Dr Burrowes acknowledged the number of girls selected to the teams this year, the highest number of any year, and was hopeful that it's a sign of things to come.

Congratulations to all team members and we wish them every success at their respective Olympiads.

Further details can be found on the AMT website at www.amt.edu.au/olympiad-teams-announced-2/ or on the Australian Science Innovations website at www.asi.edu.au/site/news.php?task=detail&id=0090.



The 2015 Informatics team, from left: Ishraq Huda, James Ruse Agricultural High School NSW, Michael Chen, Scotch College Vic, the Hon Christopher Pyne MP, Declan O'Donnell, Normanhurst Boys High School NSW and Jerry Mao, Caulfield Grammar School Vic.



The 2015 Mathematics team, from left, Alexander Gunning, Glen Waverley Secondary College VIC, Yang Song, James Ruse Agricultural High School NSW, Kevin Xian, James Ruse Agricultural High School NSW, the Hon Christopher Pyne MP, Jeremy Yip, Trinity Grammar School VIC, Ilia Kucherov, Westall Secondary College VIC and Seyoon Ragavan, Knox Grammar School NSW.

2015 Australian Mathematics Competition

The Australian Mathematics Competition (AMC) sponsored by the Commonwealth Bank will be held this year on Thursday 30 July. It is not too late to [enter](#) students and we encourage schools to enter students in the competition.

To prepare students for the AMC, the AMT offers a variety of materials for training and practice. Our online [bookshop](#) offers past paper sets and books with 7 years worth of papers and solutions.

Online preparation tools include practice questions and the [GetSet AMC](#) courses. The GetSet AMC courses are available for \$6.00 per student.

All these materials are valuable resources for preparing students for the AMC but are also very beneficial for general classroom activities and discussion.

Computational and Algorithmic Thinking (CAT)

Certificates have now been sent out to schools for Computational and Algorithmic Thinking (CAT) which was held in late March. For the first time, this competition included an Upper Primary division which attracted nearly 1000 entries. Students who achieved Perfect scores are listed on the AMT website www.amt.edu.au/informatics/cat-results/.

About 25% of the students elected to take the competition online. As our first venture into the world of online competitions, this was not without its challenges. However, most of the difficulties encountered were in the registration phase and the competition itself ran fairly smoothly. We are grateful to those schools that provided feedback in our competition survey as this has enabled us to revise some of our procedures for future competitions.

Teacher Workshops

The following workshops and presentations are available from the Australian Mathematics Trust. They will be offered from time to time at a central venue, or schools may request a presenter to come to their school (or cluster of schools). Each workshop is designed to last about 90 minutes (though 2 hours is preferable for the Enrichment workshops). Thus, it should fit into a Faculty meeting or School Professional Learning time. However, an individual workshop can be adapted or combined to fit the circumstances of a particular school.

All the presenters are experienced and have been trained and endorsed by AMT. They offer their service free of charge (except for travel expenses). We charge \$30 per participant for resources provided (though these are usually worth considerably more). Teachers attending will also receive a \$20 discount voucher for their next purchase from the AMT

bookshop. They will also receive a certificate of attendance which will include a statement of Australian Professional Standards for Teachers addressed in the workshop.

- Introduction to Challenge (Primary)
- Introduction to Challenge (Secondary)
- Enrichment (Primary)
- Enrichment (Secondary)
- Keeping Problem Solving at the Centre
- Algorithmic Thinking & CAT
- When are we going to use this?
- Convergent/Divergent Thinking
- Algebra as Storytelling

Detailed descriptions of these workshops (and how to access them) are available on the [AMT website](#).

Girls in STEM

Late last year, the AMT was given a grant to develop a STEM summer school targeting students from under-represented groups. Our counterparts in science, ASI, received a similar grant and the two organisations have chosen to work together in developing the program.

The model we have chosen is a 4-day experience in December where students will be exposed to a range of ideas across all STEM disciplines. At the end of this time they will be assigned a mentor who will support them in their own learning over the next six months, before a final 3-day experience the following July. We have just appointed a Director for the program,

Dr Kyi Muller, who is a teacher at Haileybury College in Melbourne. We will shortly be advertising for supporting staff including subject leaders, tutors and mentors.

For the first year at least we have chosen to target girls in Years 9 and 10, and will be particularly interested to hear from suitable candidates in regional or remote areas. Whilst we will use competition results to help identify some students, we will also be seeking teacher recommendations.

Positions will be advertised on the AMT website and schools will shortly receive information inviting nominations for participants.

CommBank Teaching Awards

The CommBank Teaching Awards recognise and reward teachers across Australia who are making an outstanding contribution to developing the essential money management skills of their students.

Teachers who are running an innovative financial learning program or have a great idea for one, can apply to win one

of 15 awards of \$10,000 to put towards their program. Each winning teacher will also be awarded \$2,000 as a personal reward for their hard work and dedication.

To apply or nominate a teacher, visit teachingawards.com.au and submit your application by 5pm (AEST) Monday 27 July 2015.

Subscriptions

Do you know any Maths or Informatics teachers who would benefit from receiving *Maths Matters* newsletter? They can sign up through the AMT website at www.amt.edu.au/mathematics/amc/ (under the Commonwealth Bank logo on the far right) and simply fill in their name and email address. *Maths Matters* is emailed six times throughout the year (Feb, Apr, Jun, Aug, Oct and Dec).