

The Mathematical Association of Western Australia (Inc.)

(Affiliated to The Australian Association of Mathematics Teachers Inc.)



There is important information, activities and professional development registration forms inside this mailout. Please initial and share with colleagues.

Newsletter No.4
October 2009

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Contact Us

t: (08) 9345 0388
f: (08) 9345 0488

e: office@mawainc.org.au
w: www.mawainc.org.au

PO Box 440 Mirrabooka 6941
12 Cobbler Place Mirrabooka

COMING EVENTS

Student Activities

TERM 4

Check out the 2010 Student Activities list and get them in your diary!

Week 2 - Mon 19 October

Have Sum Fun ONLINE Yr8
Have Sum Fun ONLINE Yr9
Have Sum Fun ONLINE Yr10

Week 3 - Mon 26 October

Have Sum Fun ONLINE Yr8
Have Sum Fun ONLINE Yr9
Have Sum Fun ONLINE Yr10

Week 4 - Mon 2 November

Have Sum Fun ONLINE Yr8
Have Sum Fun ONLINE Yr9
Have Sum Fun ONLINE Yr10

Week 5 - Mon 9 November

Have Sum Fun ONLINE Yr5
Have Sum Fun ONLINE Yr6
Have Sum Fun ONLINE Yr7

Week 6 - Mon 16 November

Have Sum Fun ONLINE Yr5
Have Sum Fun ONLINE Yr6
Have Sum Fun ONLINE Yr7

Week 7 - Mon 23 November

Have Sum Fun ONLINE Yr5
Have Sum Fun ONLINE Yr6
Have Sum Fun ONLINE Yr7

N.B. Have Sum Fun ONLINE competitions are open Monday to Friday of the above listed week for your convenience.

Afternoon Workshops

TERM 4

Registration Forms in your mailout!

Week 2 - Thu 22 October

Pre-algebraic Thinking: From Make to Generalisation of Patterns
(Middle - Upper Primary)
Venue: MAWA Office Mirrabooka

Week 3 - Thu 29 October

Problem Solving and Reasoning
(K - 3)
Venue: MAWA Office Mirrabooka

Week 4 - Tues 3 November

Problem Solving and Reasoning
(Middle - Upper Primary)
Venue: MAWA Office Mirrabooka

Week 5 - Tues 10 November

Place Value in Mathematics: Linking Whole Number to Decimal Number
(Middle - Upper Primary)
Venue: MAWA Office Mirrabooka

Thu 12 November

Mental Thinking in the K - 3 Classroom
(K - 3)
Venue: MAWA Office Mirrabooka

What's happening in 2010...

Don't miss out in 2010. Put these dates in your diary TODAY!

April 30 & May 1

Primary Convention
Keynote: Peter Sullivan
The Esplanade Hotel Fremantle

July 30 - August 1

State Conference
Bunbury

November 22 - 23

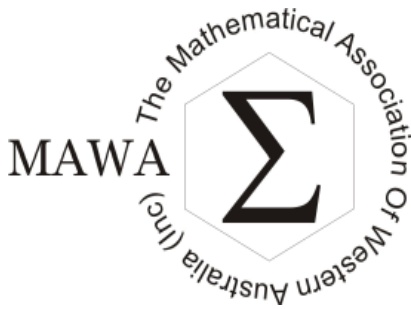
Secondary Convention
The Esplanade Hotel Fremantle



Everything you want to know about Algebra Outcomes for your class K-9 Written by Dr Thelma Perso

\$10 a book!

Want to know more about Number and Algebra? Check out the back page of the newsletter for a quick classroom activity!



From the President

Welcome to another term – I hope you all had a restful and relaxing break. This year (and last term in particular) has been quite a busy one for all of us. First, congratulations to all of you on this year’s NAPLAN results. Numeracy was the only area of the testing in which WA improved it’s ranking against the other states in all year levels. While I realise that the rankings aren’t necessarily hugely meaningful when several of the states are closely positioned, it does show that we take student numeracy seriously and have effective strategies in place to address issues. While this didn’t actually make it into the media coverage when the results were released it is something of which we can all be justifiably proud.

During last term a great deal of activity occurred at the MAWA office, we have reorganised the office, relocated the library into the meeting room and hired several new people to join our office staff. First, I would like to welcome **Gladys Bain** who joins us as a very experienced financial admin officer and will be a great addition to the team. Gladys will be working for us two days a week. Our fantastic office staff are also joined by **Rachael Anthony** our new Office Junior who is also in the office two days a week. In addition to expanding our administration team, we have also appointed a part time Professional Officer, whose office is the room which was previously our library. **Richard Korbosky**

is initially filling the role and we will advertise and appoint someone into the position during this term.

I also have some sad news, our wonderful Primary PD Convenor, **Melissa Kuhlmann** has had to resign from the committee due to her other commitments. She we will be greatly missed, but I am sure we will still see her around the traps. I would like to express my sincere thanks to Melissa for her hard work in the role, particularly in the lead up to and during the AAMT Conference this year.

Fortunately, we have been able to talk **Di Rundus** into stepping into the role and coopted her into the position shortly after Melissa’s resignation. I would like to take this opportunity to welcome Di, who I am sure will do a fantastic job.

On top of all of the changes at the office, MAWA’s work continued as usual, with Have Sum Fun Online, MADay, Games Camp and our Maths Talent Quest Awards Night all taking place last term. All of these were very successful, as usual, and I would like to thank everyone involved, especially **Jack Bana** and his team of workers for organising MADay for our students, **Jane Forte** for her wonderful organisation of the Games Camp in Albany, all those involved in making all of our events happen, and all of you who supported your students to enter the Maths Talent Quest. Congratulations to all our entrants on their efforts – there were some truly outstanding examples of mathematical reasoning and extension. Despite everything else that is going on in Maths education at the moment, it is fantastic to see how many of you still place a priority on giving your students as many opportunities to enrich their learning as possible by involving them in the

student activities that MAWA offers. We are also hosting the National Maths Talent Quest Awards this year and so I would like to wish good luck to all the students whose entries in our state competition have been nominated for the National Awards.

Lastly, through AAMT, MAWA has been involved in consulting on the first drafts of the National Curriculum for K–10 and senior school. Both documents are still at a very early stage and will be responding to the feedback received during the consultation. As such it would be premature to provide you with any detail at this stage, but rest assured we are monitoring the mathematics curricula closely and trying to ensure that change for our students and members will be minimal in its impact. Good teaching is still good teaching and changing curriculum documents does nothing to lessen the effect of a good teacher. It is to be hoped, however, that good curriculum documents will help to support less experienced teachers to find their feet quickly in a mathematics classroom and ensure the delivery of a rigorous learning pathway that will lead effectively to future destinations for all students. If you have any concerns about or comments to make regarding the materials that are publicly available on the ACARA website, please feel free to contact the MAWA office and pass that information on as I am sure we will have further opportunities to provide feedback.

And, for all our secondary members, don’t forget the Secondary Convention is coming up this term – I look forward to catching up with many of you there. **Brad Krokosz** is busily getting it all organised and it promises to be another highlight of our PD year.

Have a wonderful Term 4!

Michelle

2009/2010 Committee

Executive

President
Michelle Östberg

Secretary
Chris Fraser

Student Activities
Jack Bana

Promotion and Marketing
Mark Graber

Vice President
Dianne Tomazos

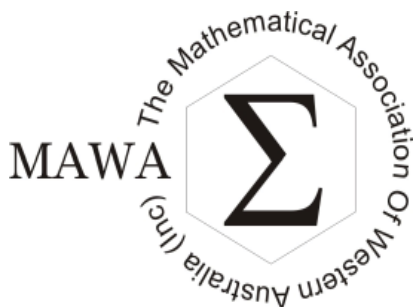
Treasurer
Richard Korbosky

Publications
To be co-opted

Membership and Services
Donna Buckley

Primary PD Convenor
Di Rundus

Secondary PD Convenor
Brad Krokosz



Congratulations

Maths Games Camp

92 students from 12 schools competed at Camp Quararup in Albany

1st Place	Willetton Senior High School
2nd Place	Hale School
3rd Place	Willetton Senior High School

Thank you to all students,
teachers and schools who
participated
in MAWA Student Activities
during Term 3

Have Sum Fun Online

Year 5

1st Place	Holy Trinity (VIC)
2nd Place	East Maddington Primary School
3rd Place	Camberwell Primary School (VIC)

Year 6

1st Place	Beaconsfield Primary School
2nd Place	Presbyterian Ladies' College (VIC)
3rd Place	Maylands Peninsula Primary School

Year 7

1st Place	All Saints' College
2nd Place	Christ Church Grammar School
3rd Place	St Thomas More School (VIC)

Term 3 Trophy Room



National Mathematics Talent Quest WA Results 2009

Kindy Whole Class WINNER

Handy Hints for Measurement
St Stephen's School

Years 5-8 OVERALL WINNER

Doughnut Dilemma Samuel Alsop
Frederick Irwin Anglican Community School

Year 4 Individual WINNER

What Can You Do With Eight Sticks Alethea Horton
Nedlands Primary School

Year 4 Group Merit Certificate

Eight Stick Shapes Joseph Kuek, Katie Wagar and Yonah Young
Nedlands Primary School

Year 5 Individual Merit Certificate

Side Show Alley Katelyn Crock
Frederick Irwin Anglican Community School

Year 6 Individual Merit Certificate

Sharks and Dolphins Brooke Cander
Heritage College

Year 6 Group Participation Certificate

Face Painting Katherine Liu, Caris McClements and Annie Sommer
Methodist Ladies' College

Year 7 Group WINNER

Donut Dilemma Jack Kay and Jack Pope
Trinity College

Year 8 Individual Merit Certificate

Golden City Chelsey Connell
Heritage College

Year 8 Individual Participation Certificate

Golden City Conway Li
Perth Modern School

Year 8 Group Participation Certificate

Bananas Jaydn Giudici and Thomas Lowry
Trinity College

Year 9 Group WINNER

Juggling Dion Fleming and Kevin Dubicki
Frederick Irwin Anglican Community School

Year 10 Group Merit Certificate

Fair Distribution Andrea Rispoli and Jack Sweeney
Trinity College

Year 10 Individual Participation Certificate

Dots and Crosses Leah Chappell
Frederick Irwin Anglican Community School

Number and Algebra

In The Australian Curriculum in Mathematics the decision has been made to reduce the number of strands to three. They include:

- Number and Algebra
- Measurement and Space
- Statistics and Probability

Included within each of these strands are Proficiency Strands, which need to be implemented in each of the Content strands. The proficiency strands include:

- Understanding
- Fluency
- Problem Solving
- Reasoning

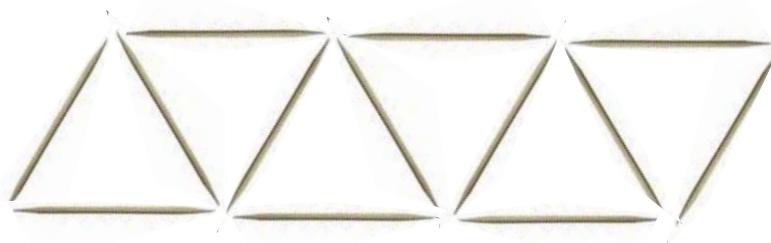
The aim of the section of the newsletter will be to look at an aspect of the Australian Curriculum in Mathematics. This article will focus on the Number and Algebra strand.

Linking Number and Algebra

Algebraic thinking occurs in primary mathematics classrooms when teachers are trying to teach students alternative ways to think and to solve word problems. It is important to focus on the manipulation of materials, collect data, make tables, interpret results and make generalisations. These skills are needed before students are introduced to formal algebra. They assist in problem solving situations and develop student's ability to improve their quantitative reasoning and their functional reasoning.

Students need to be given the opportunity to look at linear patterns, non-linear patterns and growing patterns. Look at this triangular linear pattern and see how it can be developed across the year levels.

Make this triangular pattern with toothpicks



K-3	4-5	6-7
<p>Build the patterns with a suitable material such as toothpicks or craftsticks.</p> <p>Count the number of toothpicks used to make the triangle pattern.</p> <p>Predict, make and count how many toothpicks will make a triangular pattern with 8, 10 ... triangles.</p>	<p>Make the pattern, put data into a table and look for a pattern.</p> <p>Students should be able to see $3 + 2 + 2 + 2 + 2 + 2$ equals the number of toothpicks used to make 6 triangles.</p> <p>They should predict, make, continue the table and see the pattern for 8, 10, 20, 50 triangles.</p>	<p>Make the pattern, construct their own table, look for a pattern, state the rule and make a generalisation.</p> <p>In this case the rule is - start with 3 and add 2 for each triangle.</p> <p>Students should state the generalisation in their own words before seeing that $(n \times 2) + 1$ can be used for any triangular linear pattern.</p>

**The Professional Officer is available for 2 hour afternoon workshops on this topic.
Email office@mawainc.org.au for further information on price and availability.**