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Newsletter No. 208
September, 2004

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Monday to Friday

President: Mr Ray Peck

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Annual General Meeting 2005

Members are reminded that the MAV AGM will be held immediately after our last public lecture for 2004 on Saturday, 11th September 2004

Venue: The Age Theatre
Melbourne Museum
Carlton Gardens

Time: 12.15pm

Agenda:

- Opening of meeting and welcome by the President
- Minutes of the previous AGM
- Annual Report
- Financial Report
- Appointment of Auditors for 2004 - 2005
- Appointment of 2004 – 2005 Council
- Presentation of Honorary Life Memberships

All members are invited to attend the AGM. Please RSVP to Simon Pryor on (03) 9380 2399 or email *spryor@mav.vic.edu.au.*

Final Free Public Lecture

The Age Theatre
Melbourne Museum
MELBOURNE

Count Count & the Knotty Knots
- Saturday, 11th September
Details online
http://www.mav.vic.edu.au/online/index.html

MTQ Award Ceremony, Display and Maths Trail

Due to unforeseen circumstances, the MTQ events had to be postponed. All participating schools should have received new dates and the information is posted on our website at *www.mav.vic.edu.au.* We apologise for any inconvenience this has caused.

Award Ceremony
Where: Union Hall, La Trobe University, Bundoora
When: Thursday, 28th October, 2004

Display and Maths Trail
Where: The Odeon, Union Building, La Trobe University, Bundoora
When: Saturday, 23rd October - 12-4pm (Display only – no bookings required)
Sunday, 24th October - 12-4pm (Display only – no bookings required)

On these days you can also take part in the Maths Trail around the University.
The Trail is suitable for upper primary and lower secondary students:
Monday, 25th October - 9am – 3pm (Bookings required for school groups)
Tuesday, 26th October 9am - 3pm (Bookings required for school groups)
Bookings are essential for viewing the MTQ displays and the Maths Trail; contact the MAV office on 9380 2399. Group Bookings limited to 25 students.

MTQ Thanks and Congratulations
Congratulations to all participating schools, teachers and students. We would also like to thank all teachers who devoted their time and experience to judging the entries. Although feedback on individual entries is not given, a report compiled from judges' feedback is now on our website at *http://www.mav.vic.edu.au/studact/mtq.htm.*

PDs for 2004

We have some great programs for the remainder of the year, two after-school series, one for CAS and one for statistics. Check the PD page as well as the web site for all the latest details:
http://www.mav.vic.edu.au/pd/pd2004.htm

2004 VCE Trial Exams

MAV 2004 VCE Trial Exams will be available in early September. Each exam features:

- Original questions, highly relevant to the current course
- Fully worked solutions for all sections and clear marking schemes
- Formats similar to those used by the VCAA

Exams are also available in electronic format with permission to network in your school.

Cost: $45 per exam or $240 for the complete set and $300 for electronic set.
To place an order please refer to enclosed flyer; alternatively visit *www.mav.vic.edu.au* for an order form.

From the President

Congratulations Gail Costello

While the US has had a voluntary national scheme for accrediting and rewarding Highly Accomplished teachers of Mathematics for over ten years, 2004 marks the first time for Australia. While the national Science and English teacher associations have also developed National Standards, only AAMT has managed to take the next step of accreditation against the Standards. Last year, six teachers volunteered to participate in the Teaching Standards Assessment and Evaluation Project (TSAEP) project conducted by AAMT. They were required to submit a portfolio of their work and achievements as a teacher, take part in an interview and respond to unseen questions that simulate teaching decisions through an assessment centre. Of these six teachers, four teachers were successful. Gail Costello, Vice Principal of MLC was one of these and is now one of Australia's first teachers to be recognised as a Highly Accomplished Teacher of Mathematics by the AAMT. The Mathematical Association of Victoria congratulates Gail and thanks her for her courage, hard work and contribution to the development of the profession. The AAMT project provides a workable model for other subject associations and is an important first step to recognising and rewarding talented teachers of mathematics. It is of course important to recognise that there are many other teachers of mathematics, past and present, who are also highly accomplished and have not had the opportunity to be part of such a scheme.

PRIME Project

The Portfolio Research in Mathematics and English project, conducted by Monash University under the guidance of Barbara Clarke, Brenton Doecke and Nike Prince, in partnership with MAV, VATE and VIT, is also drawing to a close. In this project nine teachers (primary and secondary) have submitted portfolios of their work for assessment against the Standards. These teachers are also to be commended for volunteering to 'put themselves on the line' so that the process of developing portfolios and assessing teacher work can be better understood. We also thank the volunteer assessors who have given their time to be trained and to assessing the portfolios. This project will be reported in more detail in a later newsletter.

Engaging in Excellence

A third project, conducted jointly by AAMT and ACER, titled 'Engaging in Excellence' enabled teachers to undertake a self-assessment against the Standards and design a Professional Development programme targeting their identified needs. The recently released TIMMS Video Study was used to provide insight into teaching strategies in selected countries and was a stimulus for discussion about the Standards. Congratulations to Ann Kilpatrick and Bernadette Coultas (PLC), Steve Swenser (Ashwood College), Peter Bullock and Alan Young (Koonung Secondary College), Nick Pacitti (Lauriston GS), Gary Collins (Southwood BGS), Marty McCarthy (Tintern GGS), Bob Regan (Lalor Cluster) and Gina Arena (Thomastown West PS), for participating in and completing this challenging programme.

Ways to support the MAV

In addition to participating in MAV professional development and getting your school involved in student activities, you can also support the MAV by serving on committees. Key committees and current convenors are Conference (Sharon Taylor), Student Activities (Mike Westbrook), Publications (David Shallcross), Professional Development (Colleen Vale), Membership and Marketing (Dave Tout), and Early Childhood (Anne Grant). They meet as required and provide an excellent way to have direct input and gain valuable experience in the operation of a professional subject association. If you teach in country schools, it is very difficult for you to serve on committees, however, you are particularly welcome to contribute your ideas to the development of MAV programmes and policy by contacting the association at any time. By contributing articles to the journals, Prime Number and Vinculum, you can share your practice with others. This can also be achieved by giving a presentation at the annual conference. Finally, from time to time, the MAV calls for additional support. In recent months, for example, there have been opportunities to assist with the Maths Talent Quest, organise a Games Day, nominate for Council or contribute to MAV responses to VCAA consultations. Contact the Executive Officer, Simon Pryor, to register your interest.

VCE Revision Lectures

Proudly supported by The Age

There are places available for the following locations during September:

Glen Waverley – 21st Sept
VU, City – 22nd Sept
Sydenham – 23rd Sept
Bundoora – 24th Sept
Frankston – 27th Sept
Sale – 28th Sept
Ballarat – 29th Sept

Bookings essential. For booking forms, please visit *ww.mav.vic.edu.au/studact/index.html*

2004 Professional Development

Registration forms for after-school Pds: - use the Professional Development application form available on the back page of this issue or download the application form from the web site at *http://www.mav.vic.edu.au/pd/pd2004.htm*.

Cost - $30 members, $40 non-members (inc GST). Cost includes afternoon tea.

Date / Time	Venue	Suburb/ Melways No.	Topic
Mon 6 Sept 4.30 – 6.00pm	Ivanhoe Grammar, Ridgeway Secondary Campus	Ivanhoe 31 F8	**"What can I do with Statistics that is interesting, engaging and worthwhile in the Upper Middle and Senior/VCE years? "** See how pathways both into and within Further Mathematics can engage students in wonderful learning. How to make the time you spend on Statistics with years 7-12 more interesting, engaging and worthwhile. Using the national "Senior School Census – online" project via the web you will sample from the student-built population data set and answer some very meaningful questions. Unlock the concepts of population and sampling for your students with relevant data that fuel motivation and inquiry. Presenter: Anthony Harradine
Tues 7 Sept 4.30 – 6.00pm	Geelong College	Geelong 451 G5	
Wed 8 Sept 4.30 – 6.00pm	Copperfield College Senior Campus	Delahey 13 E6	
Thur 9 Sept 4.30 – 6.00pm	Kambrya College	Berwick 131 D2	

PROBLEMS OF THE MONTH

A MENU OF PROBLEMS

Appetiser
A light fare to whet your mathematical appetite
Mr Manson sold a gold pencil and pen for $22. If the price of the pencil was 20% higher than the price of the pen, what was the price of each?

Main Course
Robust problems to satisfy the mathematically hungry
A bathtub can be filled by the hot and cold water pipes in 4 minutes, and when full it can be emptied by the waste pipe in 5 minutes. If it is half full, and all three pipes are set running, when will the tub be filled?

Dessert
Delectable morsels to enrich the mathematical spirit
An estate valued at $62 000 is left by Will as follows: To each of two grandchildren a certain sum, to the son twice as much as to the two grandchildren together, and to the widow $2 000 more than to the son and grandchildren together. How much goes to each?

From: *Mathematics Teaching in the Middle School*. Vol. 3, No. 2, October 1997, pp.136-137.
Original source: *Seaver and Walton's* Mental Arithmetic, 1884.

Answers to August's Problem of the Month

1. The bucket weighs 15 grams.
2. Each nail weighs 4 grams.

WEB REVIEW

MATHS AND CHESS

Why Chess?
http://www.quadcitychess.com/benefits_of_chess.html#educate
Chess is a game for all ages that develops memory, improves concentration, develops logical thinking, promotes imagination and creativity, teaches independence, inspires self-motivation – the list goes on. This site answers the questions raised by educators, parents and students about the benefits of using chess in schools.

http://teachers.net/lessons/posts/2846.html
This lesson allows the novice and experienced chess player to easily teach children how to play chess through games focused on each individual chess piece. The focus is on mathematical thinking, critical thinking and problem solving.

http://www.math.usf.edu/mug/chessy.htm
You can always defend chess-playing because it provides training in logic, combinatorial ability, and intuition. Chess is therefore a bridge between recreation and business.

http://www.successchess.com/SCSKnights/Academics.html
Chess has long been recognised throughout the world as a builder of strong intellects, but only recently has the United States begun to recognise chess' ability to improve the cognitive abilities, rational thinking and reasoning of even the least promising children. Chess brings out latent abilities that have not been reached by traditional educational means. It promotes logical thinking, instils a sense of self-confidence, and self-worth, and improves communication and pattern recognition skills. It teaches the values of hard work, concentration, objectivity, and commitment.

http://www.velucchi.it/mathchess/knight.htm
A great collection of Chess and Mathematics resources including the ultimate Knight's Tour page of links.

From the President …….. *continued from page 2*

Annual General Meeting

Following last year's successful meeting, the AGM will again take the same format. It will be held in The Age Theatre at the Melbourne Museum and will be preceded by the final free public lecture for the year 'Count Count and the Knotty Knots' to be given by Dr. Burkard Polster. Members who attend the AGM are also welcome to join councillors for lunch afterwards (please notify Simon Pryor if this is your intention). The meeting will commence at 12:15 pm on **Saturday the 11th of September** and the lecture will commence at 11 am. Please mark this in your diary now.

Ray Peck
President

Restructure

To enable us to adapt to the growing needs of our membership, we are currently undergoing a restructure. There will be some new faces added to existing staff, new systems, a new energy. We ask that you bear with us through this transitional period. We will endeavour to answer all your queries as quickly and efficiently as possible.

History and Pedagogy of Mathematics Newsletters

ICMI study group History and Pedagogy of Mathematics has its own website, and newsletters, including the most recent, are available for downloading from the following site:
www.mathedu-jp.org/hpm/index.htm

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VCE Mathematics Resources for 2004

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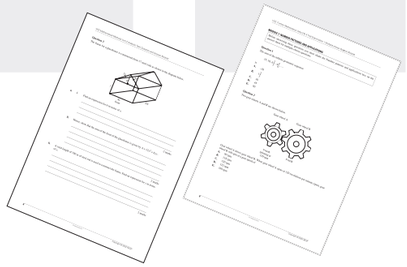
Maths Methods CAS for Units 1, 2, 3 & 4
Further Maths for Units 3 & 4
Specialist Maths for Units 3 & 4

- Exams for Units 1 & 2 are ideally suited to be used by teachers for their final testing of students.
- Exams for Units 3 & 4 allow teachers to prepare their students for the style and difficulty of the final exams.
- All Trial Exams are supplied with fully worked solutions and mark schemes.



Diagnostic Topic Tests Year 2000 Edition

Maths Methods for Units 1, 2, 3 & 4
Further Maths for Units 3 & 4
Specialist Maths for Units 3 & 4

Diagnostic Topic Tests:

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- contain questions that develop skills & competencies appropriate to each topic.
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- identify concepts being tested.
- identify rules and formulas to be applied.
- offer advice and hints on effective examination techniques.

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- material ideal for ongoing revision throughout the semester.
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- fully-worked solutions to all questions, including explanations on multiple-choice answers.
- 3 complete practice exams which reflect the current VCE exam format.
- new and original questions written for the current VCE courses.

NEAP VCE resources are also available in Biology, Chemistry, Physics, Psychology, Accounting, Business Management, Economics, Legal Studies & English.

For inspection copies or sample pages contact Suzanne, Educational Services Manager 0400 058 479

For further information or to be placed on the NEAP teacher mailing list, contact:
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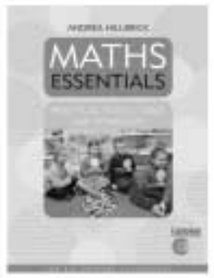
58 Pelham Street Carlton Vic 3053 Tel 03 9663 2523 Fax 03 9663 7182 www.neap.com.au

NEA204APRIL04

PUBLICATIONS CATALOGUE - NEW ADDITIONS

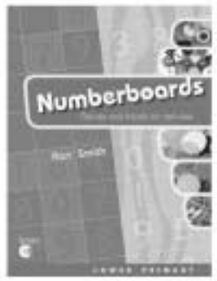


MATHS ESSENTIALS: Practical tools, tasks and strategies
Primary Resource
Andrea Hillbrick

Maths Essentials offers strategies for teachers to create a supportive learning environment so that all students can experience success in mathematics. The tools and tasks are intended for everyday use in the primary mathematics classroom. Each tool is presented as a daily mathematics lesson and the six sections of the book include:

- 'Celebrate mathematics' - ways to celebrate students' mathematical achievements
- 'Talk it up' - tools for the development of mathematical language
- 'Open-ended assessment tasks' - 16 tasks for assessing learning outcomes in Number and Space
- 'Peer and self-assessment' - strategies for engaging students in the assessment process
- 'Teacher observations' - effective tools to record observations, monitor assessment strategies and plan daily mathematics programs
- 'Masters to go' - blackline masters to support the activities.

#1451B **$35.95** (112 pages)



NUMBERBOARDS: Games and hands-on activities
Lower Primary
Ron Smith

This collection of 48 games and activities provides a fun way for students in the first three years of schooling to learn and consolidate early numeracy concepts. ***Numberboards*** departs from the 'chalk and talk' approach to involve students in a hands-on way. Different learning styles are catered for as students are given opportunities to work collaboratively, individually or competitively. The activities make use of materials that are readily available in primary classrooms.

The activities include:

- a list of materials required
- learning outcomes for Number
- suggestions for teacher observation, questioning and whole class discussion
- a reproducible student card
- a reproducible activity board.

#1451C **$35.95** (96 pages)

All prices are inclusive of GST.
Postage and handling is extra.