Newsletter No. 181 February, 2002

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Monday to Friday

President: Dr Max Stephens Print Post Approved Publication No.: PP32803/00103

## 38<sup>th</sup> Annual Conference a Great Success!

The 38<sup>th</sup> Annual Conference, held on 6 and 7 December, 2001, was attended by over 2000 mathematics educators from around Victoria and Australia, as well as many international visitors.

Although the Thursday ended up being a bit wet, it did stay fine for registration and the opening of the conference, where delegates enjoyed a free copy of The Age, and some fantastic music provided by the Drouin S.C. school band.

Prof Gilah Leder presented a fascinating Anniversary Lecture on her research into mathematics and gender, and the closing session was lots of fun, with Dr Calvin Irons dazzling us all with his paper folding activities, while we tried very hard to follow along with our own paper supplies!

Thanks to everyone for your constructive feedback - it certainly will assist us with planning for 2002

## **MAV Awards**

At the Conference Dinner on 6 December, we recognised the excellent work of Victoria's teachers with the presentation of three awards.

### MAV Teacher of the Year

The MAV 2001 Teacher of the Year award was presented to Betty Key, Swinburne University of Technology, for her fantastic work with adult numeracy students. The judges' report and student comments are reprinted on page 7.

## MAV Research Scholarship 2002

The MAV Research Scholarship was awarded to Gaye Williams, who is currently completing a PhD on the question, "What characterises situations that promote (or fail to promote) student autonomy, spontaneity, and creativity during the process of the development of new mathematical ideas?"

## Professional Experience Award

The 2001 Professional Experience Award was presented to David Liddle of Brighton Grammar School. David will use the money to fund

development of his CAS calculator skills and to access course materials, which he will then pass on to other mathematics teachers.

These awards will be run again in 2002, and further details will be available later in the year.

# The 2002 Ford Maths Talent Quest

The MAV is delighted to welcome Ford Australia as naming rights sponsor to the Maths Talent Quest for 2002. We hope that this is only the beginning of an ongoing relationship.

HAPPY BIRTHDAY MTQ! This year Maths Talent Quest turns 21!!

Applications close Friday 26 April, 2002, and the entries themselves need to be submitted on Friday 26 July.

#### PD OPPORTUNITY

The MAV will be hosting a series of FREE PD sessions focussing on the MTQ and how you can use it to challenge and stimulate your students. There will be primary and secondary sessions, held at two metropolitan venues during March - details will be confirmed in the MTQ mailout. For further information contact Pauline Rogers on 9380 2399.

The information booklet and application form will be posted out to schools mid February.

## **VCE Maths PD Days**

Option 1: Monash University, Clayton, Mon 25 Feb (only very limited places left)

Option 2: Ballarat University, Fri 8 Mar

These days are filling fast!

For full program details, and an application form, please visit our website at www.mav.vic.edu.au/pd/pd2002.htm or contact the MAV office on 03-9380 2399. To make a booking please phone the office ASAP with your session preferences.

## **MAV Subscriptions**

**2002** MAV membership payments are due by **31** March. If you have misplaced or not received a renewal invoice, please contact the MAV office on 03-9380 2399.

## From the President

## Teacher Shortages and Qualification Guidelines

Last year in this column, I referred to the growing problem of teacher shortages in the area of mathematics. As members will be aware, in late November last year, the Auditor General released a report into Teacher Workforce Planning. In that report, the growing shortage of teachers in several areas, including mathematics, was highlighted. Indeed, the report states that Mathematics is one of the subject areas with the lowest number of expected graduate teachers per vacancy, suggesting that in 2002 this is an area which will experience the most difficulty in recruiting teachers. However, despite identifying this issue, the report failed to determine the percentage of those teaching mathematics in schools who were actually qualified to do so - thus it is possible that the actual shortage of suitably qualified mathematics teachers may be more serious than the report suggests.

Late in 2001, organisations such as the MAV were invited to make submissions to the DEET reference group reviewing teacher qualifications. This was a timely review, as the MAV considers that the current qualification guidelines are inadequate. Copies of these can be viewed on the DEET website at:

 $\underline{\text{http://www.deet.vic.gov.au/deet/consultation/teacherqualifications.htm}}$ 

Below are some excerpts from our submission. The full version can be viewed on our website at: http://www.mav.vic.edu.au/whatsnew/index.html

#### **SUBJECT GUIDELINES:**

Currently, the subject qualification guidelines for mathematics teaching at both the primary and secondary level are inadequate. There also appears to be considerable inconsistency between different subject areas - for example, the guidelines seem more stringent for a primary LOTE teacher than they are for a mathematics teacher.

The MAV recommends the following minimum qualifications for teachers of mathematics in schools:

#### Primary:

To hold the position of Teacher or Leading Teacher the minimum qualifications should be:

- a major in mathematics in a B.Ed(P) degree from a recognised tertiary institution, or
- ii) one year study in mathematics within a P.Ed(P) degree, or
- iii) study deemed to be of equivalent standing. *Post Primary:*

Teachers of post primary mathematics should have studied both the discipline of mathematics and

mathematics education at a tertiary level. The minimum qualifications should be:

- at least one sixth of a three year degree such as a BA or BSc in the discipline study of mathematics and have studied mathematics education through methods of teaching mathematics at a secondary level in an Education year, or
- ii) study deemed to be of equivalent standing.

While this is the minimum to teach mathematics in a secondary school, greater study is needed to teach in the senior secondary school. Ideally teachers of years 10-12 should hold a major in mathematics (that is, a sequential study in mathematics equivalent to one third of a three year BA or BSc degree) as well as mathematics education studies which focus on mathematics pedagogy in the secondary school.\* This is the situation we should be moving towards for the senior secondary school.

Consistency in the use of these guidelines is very important but recognising that some teachers may obtain their qualifications in some other state or country, we would advocate congruence rather than consistency.

## TEACHER RETRAINING AND THE UPGRADING OF OUALIFICATIONS:

The MAV strongly supports the notion of the provision of programs and courses to assist:

- Teachers who find themselves teaching mathematics who have insufficient discipline studies to upgrade their discipline qualifications.
- Teachers who find themselves teaching mathematics without having undertaken a relevant course in mathematics education to study in this area.

There should also be an expectation that all teachers of mathematics regularly upgrade their mathematics education through PD and other programs of study. This expectation has, of course, to be matched by an obligation on employing authorities to provide time release and financial support to enable teachers to undertake such programs of professional development.

In the next issue, I will discuss the decision taken by the Council of the Australian Association of Mathematics Teachers at its meeting in January 2002 to adopt Professional Standards for Excellence in the Teaching of Mathematics. These standards point quite clearly to the kind of professional development needed to sustain high levels of competence among <u>all</u> who teach mathematics in schools, TAFE and other sectors.

#### **DR MAX STEPHENS**

President

\*The Australian Mathematics Society notes in its submission that "some engineers or physics majors may obtain sufficient additional study in mathematical applications during their course to have a lesser amount of specified mathematics." This is a good point. The full AustMS submission can be obtained from their website at: <a href="http://www.austms.org.au">http://www.austms.org.au</a>

## From the Executive Officer

## Strategic Planning for the MAV - an update

During 2001, the MAV undertook a strategic planning process with the assistance of consultants Board Plus. An extensive report was prepared for council, with the four key recommendations, detailed below:

**Key recommendation 1:** That the MAV takes ownership of its Strategic Plan.

**Key recommendation 2:** That the current Council shows leadership in reflecting input and identifying how the MAV will remain viable and vital in the long term. It must identify its core business.

**Key Recommendation 3:** That the MAV defines its potential members and supporters (present and the future) and identifies how the MAV will work with them and better represent them.

**Key Recommendation 4:** That the MAV demonstrates internally and externally that it is representative and is supporting and promoting the interests of its members and potential members.

These were adopted by Council at its final meeting for 2001. Council will work over the next 12 months to put into place action plans to ensure that these recommendations are carried out. A series of secondary recommendations flowed from the key recommendations, many of which will also be implemented throughout 2002. You can download the complete set of recommendations as a pdf file from our website at:

#### http://www.mav.vic.edu.au/whatsnew/stratfeedback.htm

One of the first areas we have focussed on is the provision of services to our regional members. While programs are still being finalised, members will notice that our full day PD events as well as our new after school series, are being offered at both metropolitan and regional venues.

We will also undertake a complete review of our membership structure during 2002. Issues such as who our members could include, how to deal with small schools, remote schools, attracting individual members and many others will be considered. This will be mentioned further next month, when we will be inviting members to contribute their opinions and suggestions.

## We want your feedback!

On 11th November Council met for a full day to consider our core business and directions for the Association. At that meeting we proposed the following:

#### **MAV Core Statement:**

Valuing mathematics in our society

#### **MAV Mission:**

The MAV is a membership driven association, which provides a voice, leadership and professional support for mathematical education.

We would welcome members' feedback on these recommendations and key statements. Please forward all comments to Sally Turnbull, Executive Officer, MAV, Cliveden, 61 Blyth Street, Brunswick, 3056, or via email: sturnbull@mav.vic.edu.au by close of business on Friday 16th February, 2002.

I look forward to keeping members up to date with the implementation of this important plan via this column each month.

#### **SALLY TURNBULL**

**Executive Officer** 

## Web Reviews

#### NRICH Online Maths Club

#### http://nrich.maths.org/



NRICH (mathematics enrichment) has thousands of members from 100 countries and many more regular users

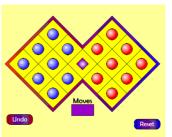
Everything is free. School students, teachers and those professionally involved in education are welcome to join. On the first of each month (except August and January) the site provides new magazines for school students of all ages with an emphasis on mathematical activity. NRICH publishes children's solutions to mathematical challenges and also provides an answering service and many special interest discussion groups.

There are many activities and ideas to access on the site, including games and information. Here is a sample activity called: Makeover which is animated on the site.

This is a game for one player. Exchange the positions of the two sets of counters in the least possible number of moves. A counter may be moved by sliding it to an adjacent empty square or by jumping over an adjacent counter of either colour into an empty square. It is possible to do this in forty six moves, but if you can succeed in fifty moves you are doing well.

This site is extremely extensive and would be of interest to teachers of all year levels.

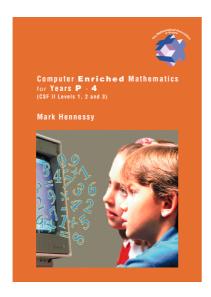
This site is well worth a visit!



# New Publications & Resources

Computer Enriched Maths for P-4

by Mark Hennessy



Aimed at using technology in the early years classroom, this extensive book provides teachers with a wide range of ideas and activities. The activities are closely linked with CSF II and include the use of Microsoft Excel, Microsoft Word, Clarisworks, Appleworkds and Kidpix. The book comes with material and activities supplied on a CD ROM.

\$50.00 (+p&h) for members (inc. GST) \$62.50 (+p&h) for non-members (inc. GST)

## WERMS Books (Written Exam Revision for Maths)

Student exam revision books for Year 12 students of Maths Methods, Further Maths and Specialist Maths. Based on past MAV trial exams, these books feature:

- Multiple choice questions
- · Short answer questions, application questions
- Answers and worked solutions
- 2 complete past MAV papers

Suitable for the current accredited VCE maths courses.

\$27.50 per subject (inc. GST) plus postage Available late February/early March 2002

## Point Symmetry



Point Symmetry is a unique activity combining the use of hands on materials with the Internet. For the activity you will need a Point Symmetry master kit (foam shapes) and access to the Internet.

## Some comments from the conference about this exciting new resource were:

- "Another great resource for an underdone topic"
- "Simple to follow/presentation"
- "Hands on activities fantastic"

The teacher resources, including worksheets, information and student activities using the Point Symmetry Master Kit are located at The Mathematical Association of Victoria (MAV) website: www.mav.vic.edu.au under teacher resources.

Each Point Symmetry master kit contains:

- 1 Point Symmetry panel rectangular
- 1 Point Symmetry panel triangular
- 20 zip lock bags
- the instruction sheet

Cost per kit: \$50.00 (+p&h) for members (inc. GST), \$62.50 (+p&h) for non-members (inc. GST)

## Mathematics in Engineering

Collected works of the Academics of the Faculty of Engineering of The University of Melbourne

David Shallcross, et al.

This interesting book provides a snapshot look at the diverse and different areas of engineering. A compilation of materials from sessions presented at the MAV conference, this book successfully presents different ways mathematics can be used in the workplace.

Some of the topics examined include:

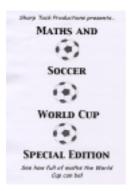
- The Mathematics of Plastic Recycling
- Heat Capacity of Cream
- The Estimation of Earth Work Volumes
- · The Mathematics of Drilling an Oil Well

This material is aimed at students Years 9-12, and would be interesting reading for any one interested in engineering or applied mathematics.

\$16.50 (+p&h) for members (inc. GST) \$25.00 (+p&h) for non-members (inc. GST)

## Exciting New Video & Resource Kit

Maths & Soccer -Special World Cup Edition



The perfect mathematical companion to this year's World Cup.

Join unlikely groups of sports fans on a fun filled mathematical journey through the world of Soccer. Discover the vital role played by numbers, graphs, geometry, algebra, angles, areas, surveys, chance and data in the world's favourite game.

Complete with teacher worksheet and a 'Stats Pack' full of Soccer and World Cup facts and figures, Maths and Soccer is an ideal springboard for follow on activities and projects, and a great way to capture the excitement of this year's biggest sporting event.

See enclosed flyer for further details.

\$75.00 (inc. GST) + \$5 postage

## **Graffiti Mathematician?**



This amusing photo was sent in to the MAV by member Malcolm Cocking, Templestowe College, who found it on a billboard on the corner of Rathdowne and Davis Streets in Carlton last year.



Have you **ordered** your school subscription to The Age for 2002?

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Make sure your school, classroom and students don't miss out.

\$10 for the entire school year Monday - Friday school delivery.



\$45 for the entire school year Monday to Friday school delivery plus weekend editions delivered on Monday.

## Teacher of the Year Award Winner



Betty Key receiving her Teacher of the Year Award from MAV President, Dr Max Stephens.

### Judges' Report

Betty Key is a stimulating and dedicated maths teacher. Betty's lessons are well prepared, and full of a range of activities, including the use of hands-on materials, cooperative small group work, and whole group work all important strategies for the successful teaching of maths. Another important aspect of Betty's teaching is her obvious enthusiasm and love for mathematics, which comes across in the amount of detailed preparation she goes into with her materials, and in her delivery of the material and information to the class. As well, Betty aims to make classes a fun and positive experience for her students, who bring with them a wide range of language, abilities and experiences, and this is indicated by the amount of activity and noise that emanates from her classrooms. Finally, her adult students, most of whom come to adult classes with high levels of maths anxiety, love her and are surprised by how easily maths can be learnt successfully, and above all, enjoyably.

David Tout & Mary Walkinshaw

## A Few Words From Betty's Students

Betty Key's nomination for MAV Teacher of the Year included numerous letters of support from her students, both past and present. Here are some of their wonderful comments.

"Under Betty's tuition it was a real source of joy to discover that maths was not merely accessible and doable, but that it could be interesting and even 'beautiful'" - Nadia Corsini

"Betty also made maths easy for those in the class from a non English speaking background (more than half the class).....she used simple language, and worked hard at finding day to day examples to illustrate what she was teaching, making the subject more approachable" -Aaron Gosling "Betty brings her own personal qualities into the classroom, compassion, enthusiasm, happiness and a genuine interest in all our results" - Cheryl Eckman

"On numerous occasions Betty would arrive with special things she had made at home. On one occasion she made everyone in the class a dice to help with probability, with delicately marked equations on every side!" - Kristi Roberts

Most inspiring is the fact that a number of Betty's students, who were on other career paths, have decided to become teachers after completing one of her courses.



Betty with some of her students who attended the Conference Dinner to see her receive the Award.

## **Conference Competition Winners**

The MAV conference was host to some hugely popular competitions, the winners of which are listed below. Congratulations! Thank you to all the displayers who contributed such wonderful prizes.

## Passport Competition

#### Primary

Christine Wickes, Cowes Primary School Peter Warwick, Banyule Primary School

#### Secondary:

Nita Anastassiou, Sandringham S.C. Elizabeth Shepherd, Canterbury Girls' S.C. Chris Kay, Donvale Christian College

#### Evaluation Prizes

#### Primary:

Julia Duncan, Roxburgh Homestead P.S.

#### Secondary:

Gordon Cowling, Gippsland Grammar School

#### Individual:

Suzy Pask, Our Lady of Sacred Heart, Bentleigh

## **Conference Lost & Found**

A camera was left in the Rotunda on the Friday of the conference. If you think it might be yours, please contact the MAV office.

## **Problem of the Month**

### The Clock Problem

This problem is reprinted with permission of MANSW



A clock repairer attends his shop from 9am to 5pm from Monday to Friday. He has two eight-day clocks in for repair. They gain or lose different amounts, but both gain or lose a whole number of minutes, less than an hour per day. One day he winds them up fully, sets both to the correct time, and sets them going. The following Monday he looks at them and notices that they are both still going and that they both show 8 o'clock. Working to whole minutes, find out at what time and on what day he sets them going.

## Maths Games Day 2002

## Year 5 Maths Games Day

Venue: St Catherine's School, Toorak

Date: Wednesday 8 May, 2002

Contact: Hayley Graham, phone 9822 1285

If you are planning to host a maths games day in 2002, and would like the MAV to promote it or provide any advice/assistance, contact Pauline Rogers at the MAV on 03-9389 0304.

Faculty of Education

# You can afford to do further study!

## Funded Research places are still available!

• Doctor of Philosophy • Doctor of Education • Master of Education (Research)

#### **New developments:**

- places funded by the Research Training Scheme
- · programs available off campus and on campus
- you can undertake research that could directly impact on the development of best practice in your workplace
- you can complete the Master of Education (Research) by thesis or combination of thesis and coursework

Applications close 22 February 2002.

To become part of the education research community, please contact:

Kerry or Evan on 9905 2819 or email info@education.monash.edu.au

Faculty of Education

Clayton – Gippsland – Peninsula



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## **Upcoming Conferences**

International Conference organised by the Mathematics Education into the 21<sup>st</sup> Century Project: "The Humanistic Renaissance in Mathematics Education"

Where: Citta del Mare Hotel, Sicily, Italy

When: 20-25 September, 2002

Contact: Alan Rogerson, arogerson@vsg.edu.au

2<sup>nd</sup> International Conference on the Teaching of Mathematics

Where: Island of Crete, Greece

When: 1-6 July 2002

Website: http://www.math.uoc.gr/~ictm2

The Australian Association of Mathematics

Teachers: "Mathematics ~ Making Waves"

Where: Brisbane, Australia When: 13-17 January 2003

Website: http://www.aamt.edu.au/2003

#### MAV 39<sup>th</sup> Annual Conference

Where: Monash University, Clayton When: 5 & 6 December 2002

A call for options form for presenting at the conference will be on our website, <a href="www.mav.vic.edu.au">www.mav.vic.edu.au</a>, in March, and the conference program will be available in August/September.

## Common Denominator Deadlines – 2002

Receipt of copy: Monday 11<sup>th</sup> February, 2002 Receipt of inserts: Monday 25<sup>th</sup> February, 2002 For mailing on: Monday 4<sup>th</sup> March, 2002

Products and services advertised and opinions expressed are not necessarily those of the Editor or the

MÁV



## Resources for VCE Mathematics 2002

### Diagnostic Topic Tests 2000 Edition

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

Diagnostic Topic Tests

- have been specifically written for the currently accredited
   VCF Mathematics courses
- allow teachers to monitor and identify students' strengths and weaknesses throughout the year.
- contain fully-worked solutions with diagnostic comments and mark allocation.
- provide questions which develop skills and competencies appropriate to each topic.
- include approaches to answering questions.
- identify concepts being tested.
- identify rules and formulas to be applied.
- offer advice and hints on effective examination techniques.

Also available for Biology, Chemistry, Physics & Accounting.

#### **Trial Examinations 2002**

Maths Methods – Units 1, 2, 3 & 4 Further Maths – Units 3 & 4 Specialist Maths – 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.

Also available for Biology, Chemistry, Physics, Psychology, English, Accounting, Business Management, Economics and Legal Studies.

### Smartstudy® Titles Now Available!

Smartstudy Maths Methods for Exam 1 Smartstudy Maths Methods for Exam 2 Smartstudy Specialist Maths for Exam 1 Smartstudy Specialist Maths for Exam 2

- Each book contains a comprehensive set of exam questions by topic along with 3 complete practice exams.
- Call NEAP for discount pricing of class sets.

Also available for Biology, Chemistry and Physics.

For further information or to be placed on the NEAP teacher mailing list, contact:

National Educational Advancement Programs (NEAP) Pty Ltd

58 Pelham Street Carlton Victoria 3053 Tel 03 9663 2523 Fax 03 9663 7182 Web Site www.neap.com.au

## **Professional Development 2002**

## Full Day Events

During 2002 we will host a variety of full day events - details will be made available in the Common Denominator and on our website (<a href="https://www.mav.vic.edu.au">www.mav.vic.edu.au</a>) as soon as possible.

Date and Venue	Description	Cost
Monday 25 <sup>th</sup> February Monash University, Clayton Campus	VCE Maths Teachers Days Sessions will be broken into Further, Methods and Specialist areas, presented by current markers and exam writers, as well as practicing teachers, and focusing on different aspects of the courses, including technology.	
Friday 8 March Ballarat University, Mt Helen Campus	While there are still places available at Ballarat, PLACES AT MONASH ARE NOW VERY LIMITED.  For full program details, and an application form please visit our website at www.mav.vic.edu.au/pd/pd2002.htm or contact the MAV office on 03-9380 2399.	

## After School Series (4:30-6:30pm)

This year, the MAV is offering several series of after school PD presentations focussing on different year levels, to be held at venues throughout Victoria. There will usually be two metropolitan venues and one country venue. These programs are still being finalised - further details will appear in next month's Common Denominator. For the most up to date information, visit the MAV website at: <a href="http://www.mav.vic.edu.au">http://www.mav.vic.edu.au</a>

Cost: \$40 (inc. GST) per session for members; \$50 (inc. GST) per session for non-members Special member's offer - make 4 bookings for any combination of sessions in the series and only pay for 3!

	Topic	Location/Venue	Date
ID 10'S	1. Challenging 9's & 10's (Presented by Charles Lovitt)  Teaching at Grade 9 and 10 levels can be rich, invigorating, cheerful as well as purposeful. Teachers have created some wonderful lessons at this level to achieve such an atmosphere in the classroom - a selection of these lessons will be workshopped and discussed. The most exciting aspect is how a multiplicity of features can all exist simultaneously within the one lesson, greatly increasing the probability of both engagement and progress.	Geelong - venue to be confirmed	Wed 8/5/02
		Melb Metro - venue to be confirmed	Thurs 9/5/02
		Ringwood - venue to be confirmed	Wed 15/5/02
AN	2. To be confirmed	Geelong - venue to be confirmed	
		Metro - venue to be o	
8.6		Ringwood - venue to be confirmed	
CHALLENGING	3. From Filing Cabinet to Classroom (Presented by Pauline Rogers) This session will concentrate on providing teachers with a wide range of ready to go activities. A smorgasbord of practical, hands-on fun activities to be used with those hard to challenge, hard to motivate year 9s and 10s. Opportunities to work through some of the activities and share ideas on enthusing students and teachers will be given.	Geelong - venue to be confirmed	Wed 29/5/02
		Melb Metro - venue to be confirmed	Thurs 6/6/02
		Ringwood - venue to be confirmed	Wed 12/6/02
	4. Classroom Strategies for Students with Learning Difficulties (Presented by Sharon Azzopardi)  This will be a hands-on workshop looking at students in the middle years with mathematical learning difficulties, in view of improving their learning outcomes with a language focus. Steps on how to clarify problem solving tasks will be demonstrated that will also identify where the students are at Examples of	Geelong - venue to be confirmed	Wed 12/6/02
		Melb Metro - venue to be confirmed	Thurs 25/7/02
	demonstrated that will also identify where the students are at. Examples of informal assessment ideas suitable for use in the classroom will be discussed. The application of a mathematical investigation (using the computer as an option) to structure tasks aimed primarily at boys, will be demonstrated.	Ringwood - venue to be confirmed	Wed 24/7/02

## **MAV Publications Order Form**

### **TAX INVOICE**

To order any of the publications advertised in this newsletter, fill out the details below and return this form with your payment to the MAV at 61 Blyth Street, Brunswick, Vic, 3056 or by fax on (03) 9389 0399.

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School:				
	s: Post Code:			
•	e Number: () Fax Number:()			
Please s				
Qty	Title	Total		
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	For overseas orders, contact the MAV office for rates.			
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Card Nun	nber:			
	Signature: Expiry date:			
	Cardholder's name:			
• Purc	hase Order Number:			

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#### **ACKNOWLEDGEMENT LETTERS**

Letters of acknowledgement are only sent out to attendees for full day professional development sessions. Those people attending after school professional development sessions will only be notified if a place is not available.

#### **CANCELLATION**

If you are unable to attend a session that you have booked into, refunds will not be issued if you cancel your booking less than 48 hours prior to the session. Please note, however, that all bookings are transferable.