### Session Details:
**Thursday 2nd December 2010**

<table>
<thead>
<tr>
<th>Session</th>
<th>Time</th>
<th>Type</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session A</td>
<td>10:45am - 11:45am</td>
<td>Standard session</td>
<td>18</td>
</tr>
<tr>
<td>Session A-B</td>
<td>10:45am - 1:00pm</td>
<td>Extended session</td>
<td>26</td>
</tr>
<tr>
<td>Session B</td>
<td>12:00pm - 1:00pm</td>
<td>Standard session</td>
<td>27</td>
</tr>
<tr>
<td>Session C</td>
<td>2:00pm - 3:00pm</td>
<td>Standard session</td>
<td>34</td>
</tr>
<tr>
<td>Session C-D</td>
<td>2:00pm - 4:15pm</td>
<td>Extended session</td>
<td>42</td>
</tr>
<tr>
<td>Session D</td>
<td>3:15pm - 4:15pm</td>
<td>Standard session</td>
<td>44</td>
</tr>
</tbody>
</table>

**Friday 3rd December 2010**

<table>
<thead>
<tr>
<th>Session</th>
<th>Time</th>
<th>Type</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session E</td>
<td>9:00am - 10:00am</td>
<td>Standard session</td>
<td>51</td>
</tr>
<tr>
<td>Session F</td>
<td>10:45am - 11:45am</td>
<td>Standard session</td>
<td>59</td>
</tr>
<tr>
<td>Session F-G</td>
<td>10:45am - 1:00pm</td>
<td>Extended session</td>
<td>67</td>
</tr>
<tr>
<td>Session G</td>
<td>12:00pm - 1:00pm</td>
<td>Standard session</td>
<td>68</td>
</tr>
<tr>
<td>Session H</td>
<td>2:00pm - 3:00pm</td>
<td>Standard session</td>
<td>76</td>
</tr>
</tbody>
</table>

### Presenter Listing

**Special Note:**
This year we have included three “Extended Sessions”. These sessions run over two sessions (length may vary). If you are attending an extended session, for example Session A-B this will replace your choices for both Session A and Session B.
The theme of this year’s conference is NEW CURRICULUM – NEW OPPORTUNITIES.

Our cover picture shows a door. Through the door you see a building that engineers said could not be built! The Guggenheim was built. The technology required to build it was developed by adapting technologies from across a wide range of contexts and developing new technologies to fit the needs of this new context. The Guggenheim museum at Bilbao in Spain was designed by Architect Frank Gehry and completed in 1997. It has been called the greatest building of our time, and represents one of those rare moments when critics, academics, and the general public were all completely united about something.

We are all standing in the doorway today. The implementation of the Australian Curriculum – Mathematics, provides us with the opportunity to take the time to think about how our teaching might be improved. To think about how our objectives might be achieved. Can we make our classes more engaging? Looking out onto a future that we create, as with the Guggenheim, we will take the best of the past, adapting it for the needs of the future, as well as taking advantage of all of that new technologies and opportunities offer us.

Pause at the door as you look out onto the future of mathematics education in your classroom and across the states and territories of Australia. Take the time to think about the best of your practice in mathematics education. What will you take through the door? What will you leave behind? How will you use the new technologies to build children’s understandings and capabilities in mathematics? As you go through the door you have the opportunity to consider and explore new possibilities.

This year the MAV Conference will provide you with plenty of stimulus for those new possibilities. I have been looking through the synopsis book at the staggering array of options available. So many exciting and intriguing choices! Have fun choosing your sessions and I’ll see you at La Trobe University in December.

Jeanne Carroll
Conference Convenor
GENERAL INFORMATION

DATES
Thursday 2nd - Friday 3rd December, 2010

VENUE
La Trobe University
Kingsbury Drive
BUNDOORA
Melways Ref: 19 G8 (Campus Map Page 473)

PARKING
Free parking is available for conference delegates in Carparks P2, P3 & P6. Take Kingsbury Drive off Plenty Road. Turn left into Waterdale Road. Go to roundabout - turn left to P2 OR turn right to P6 OR straight through into Carpark P3.

OPENING CEREMONY & ANNIVERSARY LECTURE
Date: Thursday 2nd December
9:00am - 10:00am
Presenter: Mike Askew
- Monash University
Location: Agora Theatre, Agora

CLOSING CEREMONY
Date: Friday 3rd December
3:15pm - 4:15pm
Presenters: Burkard Polster
- Monash University
Location: Agora Theatre, Agora

EXHIBITION
Date: Thursday 2nd December
8:00am - 5:30pm
Date: Friday 3rd December
8:00am - 2:00pm
Location: Main Hall, Union Building

HAPPY HOUR
Date: Thursday 2nd December
4:30pm - 5:30pm
Location: Main Hall, Union Building

CONFERENCE DINNER
Date: Thursday 2nd December
7:00pm - 10:30pm
Location: Copocabana
139 Smith Street, Fitzroy

KEYNOTE SPEAKERS:
Peter Boon
Freudenthal Institute
Ian Edwards
Luther College
Kathryn Palmer
Western Metropolitan Region
Robert Randall
Australian Curriculum, Assessment and Reporting Authority (ACARA)
David Shaw
Maths by Email
Jamos Somerville-McAlester
Tenix Questacon Maths Squad
Peter Sullivan
Monash University
Mark Waters
Hume Region, DEECD
Pam Montgomery
Hume Region, DEECD
Rob Vingerhoets
RVEC
Nadia Walker
Educational Consultant
Gaye Williams
Deakin University

CONFERENCE OFFICE CONTACTS:
Julie Allen - Event Manager
DDI: 61 (0) 3 9389 0312
MB: 61 (0) 411 243 029
Email: jallen@mav.vic.edu.au
Mel Savic - Event Coordinator
DDI: 61 (0) 3 9389 0310
MB: 61 (0) 423 257 721
Email: msavic@mav.vic.edu.au

The Mathematical Association of Victoria
61 Blyth Street
BRUNSWICK VIC 3056
AUSTRALIA
PH: 61 (0) 3 9380 2399
FX: 61 (0) 3 9389 0399
AGENDA
Thursday 2nd December
8:00am  Registration Opens
8:00am  Exhibition Opens
9:00am - 10:00am  Opening Ceremony & Anniversary Lecture
10:00am - 10:45am  Morning Tea
10:45am - 11:45am  Session A
10:45am - 1:00pm  Session A-B
12:00pm - 1:00pm  Session B
1:00pm - 2:00pm  Lunch
2:00pm - 3:00pm  Session C
2:00pm - 4:15pm  Session C-D
3:15pm - 4:15pm  Session D
4:30pm - 5:30pm  Happy Hour
5:30pm  Registration & Exhibition Closes
7:00pm - 11:00pm  Conference Dinner

Friday 3rd December
8:00am  Registration Opens
8:00am  Exhibition Opens
9:00am - 10:00am  Session E
10:00am - 10:45am  Morning Tea
10:45am - 11:45am  Session F
10:45am - 1:00pm  Session F-G
12:00pm - 1:00pm  Session G
1:00pm - 2:00pm  Lunch
2:00pm - 3:00pm  Session H
2:00pm  Registration & Exhibition Closes
3:15pm - 4:15pm  Closing Ceremony

Extended Sessions:
This year we have included three “Extended Sessions”. These sessions run over two sessions (length may vary). If you are attending an extended session, for example Session A-B this will replace your choices for both Session A and Session B.

Cancellation Policy:
Participants who cancel their booking on or prior to Monday 8th November 2010 will receive a full refund less a $25 administration fee. All cancellations MUST be in writing and include any documentation already sent out. NO REFUNDS are available after the 8th November 2010. Registration may be transferred to another person.
REGISTRATION INFORMATION

Registration Fees:

1. Session Registration
   - Member Metro: $176
   - Member Non-Metro: $171
   - Non-Member: $231
   - Student: $123
   1 Day: $352
   2 Days: $462

2. Conference Dinner (Thursday 2nd December) $70.00
3. Breakfast (per person, per day) $15.00
4. Happy Hour (Thursday 2nd December) FREE to registered delegates
5. Lunch (1 per person, per day) FREE to registered delegates

All prices are inclusive of 10% GST.

** SPECIAL CONFERENCE OFFER!!
Select to attend 2 days of the conference for $462 at the non-member rate and we will include an individual membership for 2011 (valued at $120).

How to Register:

1. Read this book, select the presentations you wish to go to in each session.
2. Get a school purchase order OR credit card number from your Bursar or Accounts person.
4. If you attended the conference last year or you have attended a MAV Professional Learning program this year please make sure you login using the email address and password that you used then.
5. a) Follow the instructions to update your profile. Make sure that you check and update all details, especially your dietary requirements.
   b) If registering on the MAV site for the first time go to “Create an account and follow the instructions to create your profile.
6. Once logged in, click on the box that has the MAV Annual Conference - choose your sessions, social program, food, accommodation, etc then click confirm.
7. Check the summary and amount you have been charged - If you think you are a member but have been charged as a non-member check with our office by calling 03 9380 2399.
8. Print out a copy of your confirmation for your records.

Note: After you have registered you may login at any time using your login details to change your sessions or to re-print your confirmation.

If you cannot log in call the MAV on 03 9380 2399 or email jallen@mav.vic.edu.au

Inclusions:
The Registration Fee includes (per person) - 1 Copy of the Conference Proceedings; Morning Tea for each day registered; 1 Lunch voucher for each day registered; Attendance at selected sessions; Happy Hour on Thursday 2nd December; Access to industry exhibition.

Notes:
◇ Registrations will NOT be processed without full payment or a school purchase order number.
◇ Session numbers are limited and the website will indicate when sessions are full.
◇ Member rates apply to individual members, institutional/school members, Australian Mathematics Associations who are members of AAMT and New Zealand Mathematics educators who are members of the NZAMT.
◇ The MAV reserves the right to cancel presentations if minimum numbers are not reached.

APPLICATIONS CLOSE MONDAY 8TH NOVEMBER 2010 AT 5:00PM
**FOOD & BEVERAGES**

**Breakfast - Thursday 2nd & Friday 3rd December**

Get on campus early, register, relax and get ready for the day’s events. A great way to kick-start the day!

On Thursday 2nd and Friday 3rd December, MAV delegates may purchase a hot breakfast which will be served in the Eagle Bar located in the Union Building. *This is additional to the registration fee.*

**Morning Tea - Thursday 2nd & Friday 3rd December**

Morning tea is included in the registration fee and will be provided to all delegates in the Union Building on both days.

**Lunch - Thursday 2nd & Friday 3rd December**

A number of food outlets at La Trobe University will be serving lunch to conference delegates. You will receive a lunch voucher with confirmation of your registration. This will entitle you to a “MAV Conference Package Lunch” at the following campus outlets:

◊ Eagle Café
◊ Ping’s Café Moat
◊ Campus Café
◊ Café Spice
◊ Caffeine Café
◊ Café Expresso
◊ Veloci Café
◊ Life Skills Café
◊ Charlie’s Kebabs

When filling in your registration form online you MUST select which outlet you want to get lunch from for each day you are attending. If nothing has been selected your default will be Ping’s Cafe Moat.

**Union Building**

**Eagle Café**

Beef Lasagna OR Roast Beef OR Vegetable Quiche

All meals served with garden salad & potato salad

**Pings Café Moat**

THURSDAY

Hot Lunch Box - Lemon Chicken Or Mixed stir fry veg with Tofu / Steamed Rice

Cold Lunch Box - Roast Chicken and salad Roll OR Vegetarian Sushi

Bottle of drink

FRIDAY

Hot Lunch Box - Rainbow steak Or Mixed stir fry veg with Tofu / Steamed Rice

Cold Lunch Box - Teriyaki Chicken or salad Roll OR Vegetarian Sushi

Bottle of drink

**Agora Square**

**Campus Café**

Choice of Main - 2 x Sushi Handrolls (Includes Vegetarian Varieties) OR Barbeque Chicken Burger OR Black Bean Beef & Rice OR Egg and Salad Sandwich (Vegetarian) OR Scalloped Potatoes (Vegetarian)

Choice of side - Serve of Hot Chips OR 2 Hash Browns OR Chocolate Muffin OR Jam Donut OR Caramel Slice

Choice of drink - Regular Coffee OR Regular Hot Chocolate OR 250ml Can of Soft Drink OR 250ml Spring Valley Juice OR 600ml Mt Franklin Water
Café Spice
One Large Serve of Rice and a Combination of any Two Curries
Can of Soft Drink or a Mango Lassi

Caffeine Café
3 x Sushi Hand Rolls OR Fresh Roll (Vegetarian or Meat)
Regular Size Coffee OR Regular Size Juice OR Can or Water

Café Expresso
Focaccia OR Sandwich OR Wrap OR Baguette OR Pie
Coffee OR Tea OR Hot Chocolate OR Cold Drink

Veloci Café
Chicken Fillet Ciabatta OR Chicken Fillet Focaccia OR Gourmet Beef Burger OR Salad Wrap OR
Large Pasta Penne Napoli Sauce
Fresh Fruit Ice Cold Drink and Pick Ribbon Chocolate

Life Skills Café
Wrap OR Sandwich OR Salad OR Quiche
Drink

Charlie’s Coffee and Kebabs
Grilled Chicken and Salad Wrap OR Chicken Schnitzel with Lettuce, Mayo and Cheese in a Roll OR
Grilled Chicken with Salad in Turkish Bread OR Vegetarian Falafal Pocket (Turkish Bread)
Piece of Fruit
Small Juice OR Water

Happy Hour - Thursday 2nd December 4:30pm - 5:30pm
Happy Hour is free of charge and open to all registered delegates and exhibitors. Please indicate whether
you will be attending this event when registering online.

Conference Dinner - Thursday 2nd December 7:00pm - 11:00pm
This year the dinner will be going “Off Campus”. Come and join us to get a flavour of the multi-culturalism
of Melbourne as we venture out to Copacabana in Fitzroy. Relax, network, enjoy good food, good wine
and some Latin entertainment. A bus will pick up dinner attendees from La Trobe University at 6:00pm
and then pick up at Rydges Hotel. At the end of the evening the bus will then drop off those staying at
Rydges and Glen College.
Copacabana - 139 Smith Street, Fitzroy
ACCOMMODATION

Glenn College, La Trobe University
Glenn College is located on campus at La Trobe University. These are student rooms used during the year so are not spacious. Please note also that there are a number of other patrons staying at the college at the same time so there may be some noise during your stay.

Option 1
Student Rooms (70 available)
These rooms consist of 1 single bed. Bathrooms are shared with 1 bathroom for every 4 rooms. You will need to bring your own toiletries and soap. This year the price **DOES NOT** include breakfast which can be purchased separately.

Student Room $ 50.00 Per Room/Per Night

Rydges Hotel, Preston
Located a short 10 minute drive from La Trobe University, this is a 4 star hotel. A shuttle bus will operate between Rydges and La Trobe University on the Thursday and Friday of the conference.

Option 2
Student Rooms (120 available)
These rooms consist of 1 single bed 190cm long X 94cm wide and offer a work station with high speed internet, Foxtel, tea & coffee making facilities, small bathroom with shower over toilet and self controlled air conditioning.

Student Room $ 82.00 Per Room/Per Night

Option 3
Sleep & Go Twin (41 available)
Featuring floor to ceiling glass, these rooms consist of 2 single beds and offer a work station with high speed internet, Foxtel, tea & coffee making facilities, wet bathroom style en-suite and self controlled air conditioning.

Sleep & Go Twin $ 115.00 Per Room/Per Night

Option 4
Sleep & Go Queen (16 available)
Featuring floor to ceiling glass, these rooms consist of 1 queen bed and offer work station with high speed internet, Foxtel, tea & coffee making facilities, wet bathroom style en-suite and self controlled air conditioning.

Sleep & Go Queen $ 115.00 Per Room/Per Night

Option 5
1 Bed Manhattan Room (8 available)
Simply stunning 1 Bed Manhattan offers 1 queen Rydges dream bed, self contained kitchenette including stove top, microwave, fridge, lounge & dining. All rooms feature work station, high speed internet, Foxtel, self controlled reverse cycle air conditioning / heating, minibar, LCD TV & in room safe.

1 Bed Manhattan Room $ 185.00 Per Room/Per Night

Option 6
2 Bed Manhattan Room (subject to availability)
As per the 1 Bed Manhattan but with 2 queen Rydges Dream beds.

2 Bed Manhattan Room $ 251.00 Per Room/Per Night
ANNIVERSARY LECTURE  
Thursday 2nd December - 9:00am - 10:00am, Agora Theatre

Prof Mike Askew – Monash University

The Intersection Between Mathematics and Creativity: The Empty Set?
For many people mathematics is not regarded as a creative endeavour, but merely a set of rules and procedures to follow. In this talk Mike will draw on research and his recent experiences of teaching mathematics in schools to look at how mathematics lessons can draw on learners curiosity and creativity and so make the subject more engaging and improve learning.

Mike Askew was, until recently, Professor of Mathematics Education at King’s College London and is excited to now be Professor of Primary Education, Monash University. Mike is widely regarded as a leading expert on primary mathematics education. Mike has directed many research projects including the influential ‘Effective Teachers of Numeracy in Primary Schools’, ‘Raising Attainment in Numeracy” and “Mental Calculations: Interpretations and Implementation” He was deputy director of the five-year Leverhulme Numeracy Research Programme, examining teaching, learning and progression in number from age 5 to age 11. The findings from such research have influenced policy both in England and abroad.

CLOSING CEREMONY  
Friday 3rd December - 3:15pm - 4:15pm, Agora Theatre

Mathematics, Movies and Murder  
Brought to you by Burkard Polster and Marty Ross

Burkard and Marty have compiled the world’s largest collection of mathematical movie clips, and they have previously presented the funniest and most famous scenes. This time they’ll share with you some of their rarest and weirdest finds: you will witness crazy mathematics and hilarious bloopers; there will be mathematical cowboys and word problems ending in murder; you will see the most evil square root of 3 ever. And, there will be guest appearances by Madonna and Michael Jackson. If none of this sounds familiar, you are in for an hour of hilarious discovery.

Burkard Polster and Marty Ross are Melbourne’s tag team of mathematics. They write the Maths Masters column for The Age, give public presentations, visit schools far and wide, and generally do whatever they can to convince whoever they can that mathematics is beautiful and fun. All their activities can be checked out at www.qedcat.com.
SESSION SUMMARY
SESSION A: 10:45am - 11:45am Thursday 2nd December

AK1  P to 8  Teaching ‘At Risk’ Students: Hume Numeracy Intervention Program - Mark Waters, Pam Montgomery

AK2  3 to 12  Captivating Maths Problems for Your Classroom - David Shaw, Jamos Somerville-McAlester

A3  K to 3  Grids and Strips. Where are They Leading? - Jan Cavanagh

A4  K to 8  Creating Language Based Activities for Mathematics - Joanne Riddell, Jackie Vella Michelle Coupland

A5  K to 8  Neat Maths Software for Primary Schools - Tony Collison

A6  K to 10  1 Computer, 1 Data Projector, 1 Piece of Software - Douglas Williams

A7  K to 10  Quadrilateral Quarrels: Classification in the Australian Curriculum - Allan Turton

A8  P to 6  The Numeracy “Toolkit” - A Must Have for All Mathematicians - Sandra Knox

A9  P to 6  Multimedia and Mathematics - Susan Thomas, Elizabeth Piemonte

A10  P to 6  Reshaping Place Value Activities for Differentiation - Kelly Utting, Elizabeth Wilson

A11  P to 12  Mathematics for Beginners - Claire O’Connor

A12  3 to 5  Independent Activities to Support the Numeracy Classroom - Marilyn Holmes

A13  3 to 6  Implementing a Whole School Approach to Multiplication and Division Mental Computation - Angela Rogers, Bernadette Long

A14  3 to 8  A Different Slant on Numeracy Intervention - Sue Gunningham, Sharon Taylor, Janice Mesiti

A15  3 to 8  An Activities Based Approach for Developing Understanding and Fluency in the Mathematics Classroom - George Anderberg

A16  3 to 10  Using NAPLAN and Other Resources to Improve Outcomes for Students - Dr Ian Lowe

A17  3 to 10  Google SketchUp Showing in 3D! - Antjie Leigh-Lancaster

A18  3 to 12  Providing Insights Into Student Thinking to Aid Their Success - Alec Young

A19  4 to 7  Data Detectives - Making it Real - Shona McRae

A20  4 to 8  Using Calculators/Computers with Primary Maths Students or Struggling Year 7/8 Students - Robert Rook, Carol Moule

A21  4 to 9  Using Games and Tasks as a Basis for Meaningful Maths Learning - Laurel Smith, Barbara Stusarczyk

A22  5 to 8  So This is Fractions and What Will You Do? - Naomi Coleman, Neil Cockburn, Alan McMahon, Peter McCaughan, Melina Bath

A23  5 to 9  Engaging Middle Years Students in Mathematics Using the MATHOMAT - Ted Marks, Steve Lewis

A24  5 to 10  Meaningful Mathematics - Statistics and Probability - Sharon London

A25  5 to 12  The Classroom Organiser - Planning and Tracking Student Progress in the Classroom - Bill Murray

A26  6 to 9  Design of Mathematical Investigation Task in Problem Solving Context - Dr Tin Lam Toh

A27  6 to 10  There’s A Problem to Solve - Mark O’Brien

A28  7 to 10  The Importance of Exploration Task to Consolidate Mathematical Thinking and Understanding - Michelle Moses

A29  7 to 11  Students Use a Video Presentation to Help Their Maths Skills – Our Experiences - Kathleen Ireland, Geoff Simmonds

A30  7 to 12  Some Rational Number Computations - David Leigh-Lancaster

A31  7 to 12  Visual Models for Multiplying Fractions - Jim Hogan

A32  7 to 12  The Australian Mathematics Curriculum: An Incentive to Teach Mathematics Conceptually? - Richard Andrew

A33  8 to 10  How to Run a CAS Lesson with Little or No Previous Experience - Rodney Anderson

A34  8 to 10  Putting Autograph to Work (Younger Students) - Douglas Butler

A35  8 to 12  Interesting Activities and New Resources for the Teaching and Learning of Proof - Dr Paul Brown


A37  9 to 10  Working Mathematically with the Casio ClassPad - Craig Tellefsen

A38  9 to 12  NESTschool. Mentoring + Maths + Flexible Learning Environment = Successful Learner - Cherie Fist, Jim Cowie

A39  9 to 12  ClassPad Tips and Tricks - Charlie Watson

A40  10 to 10  Teaching Year 10 with CAS - Bozena Graham

A41  10 to 12  Assessment Tasks in Maths Methods CAS with the Casio ClassPad - Maria Schaffner Cathy Devlyn, June Warren

A42  11 to 11  TI-Nspire with General Mathematics - John Llewelyn, Stuart Payne

A43  11 to 12  Virtual Learning Network - Mathematical Methods Online - Kyle Staggard, Leah Whiffin
SESSION A-B: 10:45am - 1:00pm Thursday 2nd December

AB-1 P to 12 A Swift Path to Computation - Prof Jyotsna Joshi
AB-2 7 to 12 Advanced GeoGebra - Brendan Owen, Cameron Hallowell
AB-3 9 to 10 A Land Surveyor’s Mathematical Toolbox - Dr Allison Kealy, Julie Tillyer
AB-4 9 to 12 Check Out This ARS! (Audience Response System) - David Tynan
AB-5 10 to 11 High-Speed Beanie Kids and Quadratic Functions - Anthony Harradine
AB-6 11 to 12 Advanced Features of TI-nspire CAS - Neale Woods

SESSION B: 12:00pm - 1:00pm Thursday 2nd December

BK1 P to 6 Lesson Study - Kathryn Palmer
B2 K to 9 Creating Unique Learning Activities - Tony Collison
B3 P to 3 A Worksheet Free P-3 Maths Classroom - Robyn Greenwood
B4 P to 6 The Numeracy "Toolkit" - A Must Have for All Mathematicians - Sandra Knox
B5 P to 6 The Mathematics Continuum (Prep-6) - Sharyn Livy
B6 P to 6 Making the Most of Mathletics in the Primary School Setting - Andrew Nicholls
B7 P to 12 Mathematics in Art and Architecture - Dr Jeanne Carroll
B8 P to 12 How Does the Stockmarket and Superannuation Work - And Why Should I Care? - Robert Vermay
B9 1 to 6 Developing a Whole School Approach to Mental Computation - Dr Paul Swan
B10 1 to 6 Teaching or Practice - The Basic Facts - Michelle Wetherall, Vanitha Govini
B11 1 to 8 What is Division and Why Does it Seem so Difficult? - Kat Freeman
B12 1 to 12 Hooray for Martin Gardner! - Dr John Gough
B13 1 to 12 MathsOnline.com.au - It's Far Better Than You Think! - Paul Waddell
B14 2 to 6 Bridging the Gap - Moving Children from Counting to Breaking up Numbers - Anne Milburn, Fiona Fox
B15 3 to 5 Independent Activities to Support the Numeracy Classroom - Marilyn Holmes
B16 3 to 6 Implementing a Whole School Approach to Multiplication and Division Mental Computation - Angela Rogers, Bernadette Long
B17 3 to 6 Students’ and Teachers’ Use of ICT in Primary Mathematics - Dr Esther Yook-Kin Loong, Brian Doig, Ass Prof Susie Groves
B18 4 to 8 Using Calculators/Computers with Primary Maths Students or Struggling Year 7/8 Students - Robert Rook, Carol Moule
B19 4 to 9 Exploring Maths with the MATHOMAT Template - John Lawton
B20 5 to 8 Problem Solving – A Grade Six Primary School Experience - Ian Bull
B21 5 to 9 Just Get Me There! - Sue Inness
B22 5 to 10 Problem Solving Strategies Using On-Line Enablers - Mark Graber
B23 5 to 10 Building Understanding in Middle Years – Algebra - Dr Ian Lowe
B24 5 to 10 To Blog or Not to Blog? - Jeff Trevaskis
B25 5 to 10 Meaningful Mathematics - Statistics and Probability - Sharon London
B26 6 to 8 Students’ Perceptions of Mathematics Teaching and Learning During the Middle Years - Catherine Attard
B27 6 to 10 Meaningful Activities to Develop Fraction Knowledge - Averil Lee
B28 7 to 10 Problem Solving - Prof Derek Holton
B29 7 to 10 CAS in the middle years with ClassPad - Kevin McMenamin
B30 7 to 10 Pearson Mathematics for the Australian Curriculum - Dirk Strasser
B31 7 to 11 Students Use a Video Presentation to Help Their Maths Skills – Our Experiences - Kathleen Ireland, Geoff Simmonds
B32 7 to 12 Casio ClassPad 101 - Elena Zema
B33 7 to 12 Mathematics on the Farm - Dr Heather McMaster
B34 7 to 12 Strategies for Numeracy Coaching - Karen Perkins, Ken Stewart
B35 7 to 12 Making the Most of Mathletics in the Secondary School Setting - Jason d’Offay
B37 9 to 12 ClassPad Tips and Tricks - Charlie Watson
B38 10 to 12 An Ocean of Opportunity: Exposing Students to Real Applications of Mathematics - Dr Giles Thomas
B39 11 to 11 TI-nspire with General Mathematics - John Llewelyn, Stuart Payne
B40 11 to 12 Virtual Learning Network - Mathematical Methods Online - Kyle Staggard, Leah Whiffin
B41 11 to 12 Mathematical Methods CAS Examination 2, 2011 and Beyond - Allason McNamara
B42 11 to 12 Putting Autograph to Work (Advanced Students) - Douglas Butler
SESSION C: 2:00pm - 3:00pm Thursday 2nd December

CK1 P to 6 National Curriculum Mapping - Nadia Walker
CK2 K to 2 Working Mathematically with Infants - Douglas Williams
CK3 P to 3 A Worksheet Free P-3 Maths Classroom - Robyn Greenwood
CK4 P to 6 Teaching Place Value and Instant Recall of Number Facts - Greg Butler, Fiona Van Heuman

CK5 P to 8 Open-Ended Activities and Their Use in Formative and Summative Assessment - Kathryn Palmer, Caroline Mazurkiewicz
CK6 P to 10 Using Whole School Data for Powerful Learning - Helen Edmonds, Kathryn Patford, Catherine Blewett

CK7 P to 12 D.I.Y. e-Resources on Excel - Peter Clerks, Catherine Clerks
CK8 P to 12 Mathletics for Pro’s: Exploring the Advanced Features of Mathletics - Julie Thompson
CK9 1 to 6 Developing a Whole School Approach to Mental Computation - Dr Paul Swan
CK10 1 to 6 Teaching or Practice - The Basic Facts - Michelle Wetherall, Vanitha Govini

CK11 1 to 8 Making Maths Lessons Marvellous - Gabrielle West
CK12 2 to 10 Maths The Ugandan Way - Sue Neale
CK13 3 to 7 Fun with Foam - Donna Ludvigsen, Darren Beer
CK14 3 to 8 Pre-Algebra and Logical Thinking - Richard Korbosky
CK15 3 to 10 Differentiating Our Teaching - Dr Ian Lowe

CK16 4 to 10 Provoking Mathematical Conversations, and How You Might Amplify Mathematical Ideas with ICT - Matt Skoss, Tony Richards

CK17 5 to 6 Integrating Maths - Biodiversity - Natasha Ziebell
CK18 5 to 7 Working Mathematically – Problem Solving - Bronwyn Quint, Daniel Avano
CK19 5 to 8 Problem Solving – A Grade Six Primary School Experience - Ian Bull
CK20 5 to 8 Extending Your Resources - Iren Dyka, Andy Dyka
CK21 5 to 8 Transforming Space - Assoc/Prof Marj Home
CK22 5 to 9 Game-Based Learning - Adrian Camm
CK23 5 to 9 An Effective Numeracy Program for the Middle Years - Yvonne Reilly, Jodie Parsons, Elizabeth Bortolot

CK24 5 to 9 Essential Excel - Sue Inness
CK25 5 to 10 To Blog or Not to Blog? - Jeff Trevaskis
CK26 6 to 9 Design of Mathematical Investigation Task in Problem Solving Context - Dr Tin Lam Toh
CK27 7 to 9 Quiz - It Maths! The Ultimate Classroom Battle! - Peter Curry
CK28 7 to 10 Whole Class Activities for Years 7-10 - Theresa Pagon, Elvira Palmerella
CK29 7 to 10 Big Ideas, Mathematics and the Australian Curriculum - Jennifer Nolan, Melanie Koetsveld
CK30 7 to 10 Cooperative Learning in the Maths Classroom - Mark O’Brien
CK31 7 to 11 Exposing the Mathemagicians - Peter Fox
CK32 7 to 12 Casio ClassPad 101 - Elena Zema
CK33 7 to 12 Strategies for Numeracy Coaching - Karen Perkins, Ken Stewart
CK34 7 to 12 Making ICT Work for Mathematics - A UK Perspective - Douglas Butler
CK35 7 to 12 Getting Your ‘Horses’ to Drink at the Trough of Maths - Richard Andrew
CK36 8 to 10 Interactive Geometry on the ClassPad - Ian Thomson
CK37 8 to 11 Effective Teaching About the Mathematics of Chance Gambling - Donald Smith
CK38 9 to 10 Enriched with CAS and More! - Lisa Saffin, Rennae Miszkurka
CK39 9 to 12 Vapour Trails and Neon Signs - Brett Stephenson
CK40 9 to 12 Keys to Success - Karen Boyce
CK41 10 to 11 Using TI-Nspire for Polynomial Graphing Activity - Shane Dempsey, Rhiannon Smith
CK42 11 to 12 Eliminating Learning Obstacles in Mathematics - Fred Ghanem
CK43 11 to 12 When X - X neq 0: An Introduction to the Algebra of Random Variables - John Kermond
CK44 11 to 12 StudyON for VCE Mathematics – Want to Improve Your Students’ Exam Results? - Shirley Griffith, Shirley Sharpley, Lyn Elms

CK45 12 to 12 Using Examiner’s Reports to Enhance Student Revision - Alan Brookes, Paul Negri

SESSION C-D: 2:00pm - 4:15pm Thursday 2nd December

CD-1 P to 4 Practical Ideas for Differentiating Instruction: Number and Algebra Concepts P-4 - Anita Chin

CD-2 1 to 12 MathsOnline.com.au - It’s Far Better Than You Think! - Paul Waddell

CD-3 2 to 8 Flip, Slide and Away: Creative Ways to Approach Geometry in the National Curriculum - Ass Prof Susie Groves

2010 MAV Annual Conference
CD-4 4 to 8 How to Teach Decimals Better - Michael O'Reilly, Norrian Rundle
CD-5 5 to 9 Ideas for Algebra: Making Bridges Between Number, Number Operations and Structure - Dr Max Stephens
CD-6 5 to 10 The Role of Cultural Competence in Improving Mathematics Outcomes for Indigenous Students - Dr Jeannette Kavanagh, Prof Peter Sullivan, Susan McNabb
CD-7 6 to 8 TI-Nspire for Computers at the Singapore School of Science and Technology - Dr Sarah Davis
CD-8 7 to 10 Mathplot - Using Computers in a Maths Classroom with Year 7-10 Students’ - Robert Rook
CD-9 7 to 12 Using ClassPad Manager and the Geometry Application - Alastair Lupton
CD-10 9 to 12 Check Out This ARS! (Audience Response System) - David Tynan

SESSION D: 3:15pm - 4:15pm Thursday 2nd December
DK1 5 to 12 Designing Online Mathematics Education: From Tools to Rich Integrated Digital Learning Environments - Peter Boon
D2 K to 12 Consumer and Financial Literacy and the Australian Curriculum: Mathematics – What and How? - Will Morony
D3 P to 6 Teaching Place Value and Instant Recall of Number Facts - Greg Butler, Fiona Van Heuman
D4 P to 6 Tomorrow’s Mathematics Classroom Here Today - Gerard Tuffield
D5 P to 8 Open-Ended Activities and Their Use in Formative and Summative Assessment - Kathryn Palmer, Caroline Mazurkiewicz
D6 P to 10 Improving Mathematics Learning in the Kingston Network: Our Story - Nadia Walker, Paul Arnts, Bryony Lowe
D7 P to 12 Owizdom Mathematics - Andy Penman
D8 P to 12 Achieving More with Mathematic - Kate Williamson
D9 2 to 6 Marvellous Mentals - Peggy Ashton, Jenny Vincent
D10 2 to 10 Puzzle Olympics - Douglas Williams
D11 3 to 6 Mathematical Games: Just Trivial Pursuits? - Derek Hurrell, Dr Paul Swan
D12 3 to 7 Fun with Foam - Donna Ludvigsen, Darren Beer
D13 3 to 7 Using Number Puzzles to Promote Fluency in the Australian Curriculum: Mathematics - Peter Stowasser
D14 3 to 10 Building Understanding in Middle Years – Number - Dr Ian Lowe
D15 4 to 8 Probability - On a Scale From 0 to1 - Mark Mudge
D16 4 to 9 Online Resources For Maths - Hang Nguyen
D17 5 to 7 Can we Improve the Connections Between Number and Measurement for Students? - Vivienne Thompson
D18 5 to 7 Working Mathematically – Problem Solving - Bronwyn Quint, Daniel Avano
D19 5 to 8 Transforming Space - Assoc/Prof Marj Horne
D20 5 to 9 Game-Based Learning - Adrian Camm
D21 5 to 10 Collaboration and the Development of Students’ Reasoning Skills - Colin Shnier
D22 7 to 7 Concrete Materials in Middle School: Using Pattern Blocks with the Mathomat Template - John Lawton, Michael O’Connor
D23 7 to 8 Hungry Brains - Starter Activities and Extension Problems for Introducing Mathematics Topic to Students - Jo Bradley, Paul Nugent
D24 7 to 8 Online Collaborative Mathematics Projects - Pauline Holland, Lyn Elms
D25 7 to 10 Dancing Robots and Catching Like Terms - Interactive Lessons Designed to Engage - Vebica Evans
D26 7 to 10 Discover, Explore, Connect - Jennifer Nolan, Melanie Koetsveld
D27 7 to 10 Using Applications to Support Deep Understanding and Engagement - Mark O’Brien
D28 7 to 11 Animation, Iteration and Tool Making Using Geometer Sketch Pad - Lloyd Stagg
D29 7 to 12 Mathematical Amnesia - Peter Fox
D30 7 to 12 Teach Locus with Geometer’s Sketchpad - Karim Noura
D31 7 to 12 For the Novice ClassPad User - Anthony Harradine
D32 7 to 12 Assessment and the Australian Curriculum - Richard Andrew
D33 8 to 11 Assessing Angles with the Australian Rules Set-shot - Terry Lockwood, Therese Holland
D34 9 to 12 CAS: Good for the goose, Good for the gander? The relevance of CAS for Years 9 and 10 - Sue Garner
D35 9 to 12 Rich Activities with TI-Nspire CAS - Frank Moya
D36 9 to 12 Vapour Trails and Neon Signs - Brett Stephenson
D37 10 to 11 Accessing Real Data for Use in the Classroom - Jean Arnott
D38 10 to 12 Playing with Wolfram Alpha - David Leigh-Lancaster
D39 10 to 12 Pre-Apprenticeship and Pre-Accreditation Maths for Trades and TAFE - Andrew Spencer
D40 11 to 12 Using the Classpad to Enhance Your Year 11 Methods Teaching - Kevin McMenamin
SESSION E: 9:00am - 10:00am Friday 3rd December

EK1  P to 10  Ways of Using the “Proficiencies” from the Australian Curriculum to Enrich Mathematics Teaching and Assessment - Prof Peter Sullivan

E2  K to 3  Grids and Strips. Where are They Leading? - Jan Cavanagh

E3  K to 3  Developing Flexible Thinkers in the Early Childhood Classroom - Richard Korbosky

E4  K to 8  Creating Language Based Activities for Mathematics - Joanne Riddell, Jackie Vella, Michelle Coupland

E5  P to 6  Mathematics (Numeracy) Interview and the National Mathematics Curriculum – Clear Connections! - Pam Hammond

E6  P to 8  Geocaching: A Worldwide Real-Life Mathematical Treasure Hunt - Dr Leicha Bragg, Megan Skinner, Yianna Pullen

E7  P to 10  MAV Maths Talent Quest - Working Mathematically - Investigation Projects - June Penney, Kelly Gallivan

E8  P to 12  D.I.Y. e-Resources on Excel - Peter Clerks, Catherine Clerks

E9  P to 12  Mathematics for Beginners - Claire O’Connor

E10  1 to 12  MathsOnline.com.au - It’s Far Better Than You Think! - Paul Waddell

E11  2 to 6  Marvellous Mentals - Peggy Ashton, Jenny Vincent

E12  3 to 5  Performance of Low Attainers from Singapore in Numeracy - Mdm Suo Hui Chang, Dr Phong Lee Koay, Dr Berinderjeet Kaur

E13  3 to 7  Statistics in the Australian Curriculum - Peter Stowasser

E14  3 to 10  Using NAPLAN and Other Resources to Improve Outcomes for Students - Dr Ian Lowe

E15  3 to 12  Star Numbers and Other Investigations with Poly Plug - Douglas Williams

E16  4 to 9  Using Games and Tasks as a Basis for Meaningful Maths Learning - Laurel Smith, Barbara Slusarczyk

E17  5 to 8  Sundials and Other Useful Solar Instruments - Tim Byrne

E18  5 to 8  Working Mathematically: Australasian Problem Solving Mathematical Olympiads Workshop - Dr Anne Prescott, Jon Phegan

E19  5 to 9  An Effective Numeracy Program for the Middle Years - Yvonne Reilly, Jodie Parsons, Elizabeth Bortolot

E20  5 to 9  Engaging Middle Years Students in Mathematics Using the MATHOMAT - Ted Marks, Steve Lewis

E21  5 to 9  Using CensusAtSchool to Promote Statistical Literacy in Your Middle Years Classroom - Mary-Anne Aram

E22  5 to 9  Geometry – Can We Build It? Yes We Can! - Janine McIntosh

E23  5 to 9  Measurement and Technology – Using Data Loggers - Bronwyn Quint, Daniel Avano

E24  5 to 10  Meaningful Mathematics - Number and Algebra - Sharon London

E25  6 to 8  Proportional Thinking; from Fractions to Percentages - Jill Smythe

E26  7 to 7  Concrete Materials in Middle School: Using Pattern Blocks with the Mathomat Template - John Lawton, Michael O’Connor

E27  7 to 9  Teaching for Depth: Where Maths Meets the Humanities - Ian Hauser

E28  7 to 10  Problem Solving - Prof Derek Holton

E29  7 to 10  Mathematics Students on Trak - Diagnostic Testing From Red to Green - Jan Honnens

E30  7 to 10  CAS in the middle years with ClassPad - Kevin McMenamin

E31  7 to 10  Working Mathematically Performance Tasks - Mark O’Brien

E32  7 to 12  Web 2.0 and Mathematics - Marcel van Otterdyk

E33  7 to 12  Plants and Maths - A Great Combination! - Joe Blake

E34  8 to 12  Interesting Activities and New Resources for the Teaching and Learning of Proof - Dr Paul Brown

E35  9 to 12  Rich Activities with TI-Nspire CAS - Frank Moya

E36  9 to 12  Keys to Success - Karen Boyce

E37  9 to 12  ClassPad eActivities - Charlie Watson

E38  10 to 12  The new TI-Nspire CAS OS2.0/2.1 and the VCE - Russell Brown, Rodney Anderson

E39  10 to 12  Use of Real Life Examples, Data and Characters to Engage Students in the Learning of Probability, Statistics and Differential Equations - Jasmine Ng Ee War

E40  11 to 12  Analysing the Birth Month Problem Using TI-Nspire CAS - Amanda Legg, Darren Grantham

E41  11 to 12  Eliminating Learning Obstacles in Mathematics - Fred Ghanem

E42  11 to 12  StudyON for VCE Mathematics – Want to Improve Your Students' Exam Results? - Shirley Griffith, Shirley Sharpley, Lyn Elms

E43  12 to 12  Using Examiner’s Reports to Enhance Student Revision - Alan Brookes, Paul Negri
SESSION F: 10:45am - 11:45am Friday 3rd December

FK1 P to 8 Student Thinking and Teacher Reflections Can Inform Australian Mathematics Curriculum Implementation - Gaye Williams

FK2 11 to 12 The Senior Secondary Australian Curriculum: Mathematics - Robert Randall

FK3 K to 7 Calculating Changes Across the School - Douglas Williams

FK4 K to 8 Neat Maths Software for Primary Schools - Tony Collison

FK5 K to 10 Developing a Personal Mathematical Identity. Who? Me? - Janine McIntosh

FK6 P to 6 Reshaping Place Value Activities for Differentiation - Kelly Utting, Elizabeth Wilson

FK7 P to 6 Mathematics (Numeracy) Interview and the National Mathematics Curriculum – Clear Connections! - Pam Hammond

FK8 P to 6 Making the Most of Mathletics in the Primary School Setting - Andrew Nicholls

FK9 P to 8 Geocaching: A Worldwide Real-Life Mathematical Treasure Hunt - Dr Leicha Bragg, Megan Skinner, Yianna Pullen

FK10 P to 10 MAV Maths Talent Quest - Working Mathematically - Investigation Projects - June Penney, Kelly Gallivan

FK11 2 to 6 Bridging the Gap - Moving Children from Counting to Breaking up Numbers - Anne Milburn, Fiona Fox

FK12 3 to 6 Students’ and Teachers’ Use of ICT in Primary Mathematics - Dr Esther Yook-Kin Loong, Brian Doig, Ass Prof Susie Groves

FK13 3 to 10 Google SketchUp Showing in 3D! - Antje Leigh-Lancaster

FK14 3 to 12 Providing Insights Into Student Thinking to Aid Their Success - Alec Young

FK15 4 to 9 Exploring Maths with the MATHOMAT Template - John Lawton

FK16 5 to 8 Working Mathematically: Australasian Problem Solving Mathematical Olympiads Workshop - Dr Anne Prescott, Jon Phegan

FK17 5 to 9 Using a Measurement Model and Partitioning Whole Numbers to Develop Fraction Understanding - Catherine Pearn, Dr Max Stephens

FK18 5 to 9 Measurement and Technology – Using Data Loggers - Bronwyn Quint, Daniel Avano

FK19 5 to 10 Building Understanding in Middle Years – Algebra - Dr Ian Lowe

FK20 5 to 10 Problem Solving Strategies Using On-Line Enablers - Mark Graber

FK21 5 to 10 Using Algebra to Make Generalisations - Dr Heather McMaster

FK22 5 to 10 Meaningful Mathematics - Number and Algebra - Sharon London

FK23 6 to 9 Getting Fractions Sorted - Damian Howison

FK24 6 to 12 So This Will Be/Has Been Your First Year of Teaching Mathematics? - Robert Vermay

FK25 7 to 9 Learning by Reflecting – A Pedagogy for Engaged Mathematics Learning - Prof Berinderjeet Kaur

FK26 7 to 10 The Importance of Exploration Task to Consolidate Mathematical Thinking and Understanding - Michelle Moses

FK27 7 to 10 Dancing Robots and Catching Like Terms - Interactive Lessons Designed to Engage - Vebica Evans

FK28 7 to 11 Animation, Iteration and Tool Making Using Geometer Sketch Pad - Lloyd Stagg

FK29 7 to 12 Twenty-Four Seven - Hayden McQueenie, Marion Myers, Des Lyristis

FK30 7 to 12 Some Rational Number Computations - David Leigh-Lancaster

FK31 7 to 12 Visual Models for Multiplying Fractions - Jim Hogan

FK32 7 to 12 The Australian Mathematics Curriculum: An Incentive to Teach Mathematics Conceptually? - Richard Andrew

FK33 7 to 12 Making the Most of Mathletics in the Secondary School Setting - Jason d’Offay

FK34 8 to 10 Putting Autograph to Work (Younger Students) - Douglas Butler

FK35 9 to 10 Geogebrar - Some Interesting Opportunities at Years 9-10 - Lynda Ball, Dr Robyn Pierce

FK36 9 to 10 Enriched with CAS and More! - Lisa Saffin, Rennae Miszkurka

FK37 9 to 12 NETschool. Mentoring + Maths + Flexible Learning Environment = Successful Learner - Cherie Fist, Jim Cowie

FK38 9 to 12 ClassPad eActivities - Charlie Watson

FK39 10 to 11 Accessing Real Data for Use in the Classroom - Jean Arnott

FK40 10 to 12 An Ocean of Opportunity: Exposing Students to Real Applications of Mathematics - Dr Giles Thomas

FK41 11 to 12 Using the ClassPad to Enhance your Year 11 Methods Teaching - Kevin McMenamin

FK42 11 to 12 Programming with TI-Nspire - Raymond Rozen, Shirley Griffith

FK43 11 to 12 Mathplot - Using Computers in a Maths Classroom with Year 11/12+ Students - Robert Rook
SESSION F-G: 10:45am - 1:00pm Friday 3rd December

FG-1  P to 6  Strategies to Enhance the Teaching and Learning of Number P-4 - Gerard Lewis, Andrea Dineen
FG-2  P to 12  A Swift Path to Computation - Prof Jyotsna Joshi
FG-3  1 to 12  MathsOnline.com.au - It's Far Better Than You Think! - Paul Waddell
FG-4  5 to 8  Practical Ideas for Differentiating Instruction: Number and Algebra Concepts Years 5-8 - Anita Chin
FG-5  6 to 8  TI-Nspire for Computers at the Singapore School of Science and Technology - Dr Sarah Davis
FG-6  7 to 9  Developing Algebraic Understanding - Assoc/Prof Marj Horne
FG-7  8 to 10  Using 'Algebra Blocks' to Teach Integers, Expansion and Factorisation - Michael O’Reilly, Norrian Rundle
FG-8  9 to 10  A Land Surveyor’s Mathematical Toolbox - Dr Allison Kealy, Julie Tillyer
FG-9  10 to 12  No Thought Left Behind - Peter Fox
FG-10 11 to 12  Exploring the Potential of the TI-Nspire in Statistics (Hands-On) - Prof Peter Jones

SESSION G: 12:00pm - 1:00pm Friday 3rd December

GK1  8 to 11  Developing Deep Understanding in Students – The Role of Real World Applications and ICT - Ian Edwards
G2   K to 6  Angles in the Curriculum: What the Australian Curriculum Doesn’t Tell You - Allan Turton
G4   P to 6  Finding the Numeracy in Literacy - Kim Kirkpatrick, Sherilyn Butler
G5   P to 6  The Mathematics Continuum (Prep-6) - Sharyn Livy
G6   P to 10  Using Whole School Data for Powerful Learning - Helen Edmonds, Kathryn Patford, Catherine Blewett

G7  P to 12  Understanding Mathematics by Looking at the Name “Mathematics” - Prof Willy Mwakapenda
G8  P to 12  How Does the Stockmarket and Superannuation Work - And Why Should I Care? - Robert Vermay
G9  P to 12  Using My Flip Camera and Easi-Speak Microphone to Create Exciting Learning Experiences - Jo Evans
G10  P to 12  Mathematics for Pro’s: Exploring the Advanced Features of Mathletics - Julie Thompson
G11  1 to 7  Maths Learning Kits - Margaret Rockett
G12  1 to 8  English as a Foreign Language, Maths as a Foreign Practice - John Bradbury
G13  2 to 10  Maths The Ugandan Way - Sue Neale
G14  3 to 6  Promoting Numeracy Through Short and Simple Maths Games - Linda Baron
G15  3 to 8  A Different Slant on Numeracy Intervention - Sue Gunningham, Sharon Taylor, Janice Mesiti
G16  3 to 8  A Hands-On Approach to Teaching Fractions - George Anderberg
G17  3 to 10  Differentiating Our Teaching - Dr Ian Lowe
G18  3 to 10  Working Mathematically with Very Little - Douglas Williams
G19  4 to 10  Maths on a Mat, and How You Might Amplify Mathematical Ideas With ICT - Matt Skoss, Tony Richards
G20  5 to 8  So This is Fractions and What Will You Do? - Naomi Coleman, Neil Cockburn, Alan McMahon, Peter McCaughan, Melina Bath
G21  5 to 9  Using a Measurement Model and Partitioning Whole Numbers to Develop Fraction Understanding - Catherine Pearn, Dr Max Stephens
G22  5 to 12  The Classroom Organiser - Planning and Tracking Student Progress in the Classroom - Bill Murray
G23  7 to 8  Hungry Brains - Starter Activities and Extension Problems for Introducing Mathematics Topic to Students - Jo Bradley, Paul Nugent
G24  7 to 9  Quiz - It Maths! The Ultimate Classroom Battle! - Peter Curry
G25  7 to 10  Whole Class Activities for Years 7-10 - Theresa Pagon, Elvira Palmerella
G26  7 to 10  Big Ideas, Mathematics and the Australian Curriculum - Jennifer Nolan, Melanie Koetsveld
G27  7 to 10  Using Applications to Support Deep Understanding and Engagement - Mark O’Brien
G28  7 to 11  Walk This Way - Damian Howison
G29  7 to 11  Data-Loggers In Mathematics Classrooms - Martin Gregory
G30  7 to 12  Twenty-Four Seven - Hayden McQueenie, Marion Myers, Des Lyristis
G31  7 to 12  Mathematics on the Farm - Dr Heather McMaster
G32  7 to 12  The Data You Supply to Students for Analysis Really Does Matter - Anthony Harradine
G33  7 to 12  Plants and Maths - A Great Combination! - Joe Blake
G34  7 to 12  Getting Your ‘Horses’ to Drink at the Trough of Maths - Richard Andrew

2010 MAV Annual Conference
<table>
<thead>
<tr>
<th>Session</th>
<th>Time</th>
<th>Title</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G35</td>
<td>8 to 10</td>
<td>Interactive Geometry on the ClassPad</td>
<td>Ian Thomson</td>
</tr>
<tr>
<td>G36</td>
<td>8 to 11</td>
<td>Assessing Angles with the Australian Rules Set-shot</td>
<td>Terry Lockwood, Therese Holland</td>
</tr>
<tr>
<td>G37</td>
<td>9 to 12</td>
<td>Getting in Touch with TI-nspire CAS Touchpad</td>
<td>Neale Woods</td>
</tr>
<tr>
<td>G38</td>
<td>10 to 12</td>
<td>Playing with Wolfram Alpha</td>
<td>David Leigh-Lancaster</td>
</tr>
<tr>
<td>G39</td>
<td>10 to 12</td>
<td>Teaching with the TI-Nspire CAS Calculator</td>
<td>Shirl Griffith, Pauline Holland, Raymond Rozen</td>
</tr>
<tr>
<td>G40</td>
<td>11 to 12</td>
<td>When X - X neq 0: An Introduction to the Algebra of Random Variables</td>
<td>John Kermond</td>
</tr>
<tr>
<td>G41</td>
<td>11 to 12</td>
<td>Putting Autograph to Work (Advanced Students)</td>
<td>Douglas Butler</td>
</tr>
<tr>
<td>G42</td>
<td>11 to 12</td>
<td>Mathplot - Using Computers in a Maths Classroom with Year 11/12+ Students</td>
<td>Robert Rook</td>
</tr>
<tr>
<td>G43</td>
<td>12 to 12</td>
<td>Countering Further Mathematical Errors?</td>
<td>Andrew Stewart</td>
</tr>
</tbody>
</table>

**SESSION H: 2:00pm - 3:00pm Friday 3rd December**

<table>
<thead>
<tr>
<th>Session</th>
<th>Time</th>
<th>Title</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HK1</td>
<td>P to 12</td>
<td>10 Very Useful Tips for Becoming a More Effective Maths Teacher</td>
<td>Rob Vingerhoets</td>
</tr>
<tr>
<td>H2</td>
<td>K to 9</td>
<td>Creating Unique Learning Activities</td>
<td>Tony Collison</td>
</tr>
<tr>
<td>H3</td>
<td>P to 6</td>
<td>Tomorrow's Mathematics Classroom Here Today</td>
<td>Gerard Tuffield</td>
</tr>
<tr>
<td>H4</td>
<td>P to 9</td>
<td>Lessons Study – Could it Work For You?</td>
<td>Ass Prof Susie Groves, Brian Doig</td>
</tr>
<tr>
<td>H5</td>
<td>P to 10</td>
<td>Improving Mathematics Learning in the Kingston Network: Our Story</td>
<td>Nadia Walker, Paul Arnts, Bryony Lowe</td>
</tr>
<tr>
<td>H6</td>
<td>P to 11</td>
<td>Using Developmental Continuum of Understanding to Create Real Mathematicians in Your Classroom</td>
<td>Bruce Williams</td>
</tr>
<tr>
<td>H7</td>
<td>P to 12</td>
<td>Using My Flip Camera and Easi-Speak Microphone to Create Exciting Learning Experiences</td>
<td>Jo Evans</td>
</tr>
<tr>
<td>H8</td>
<td>P to 12</td>
<td>Owizdom Mathematics</td>
<td>Andy Penman</td>
</tr>
<tr>
<td>H9</td>
<td>P to 12</td>
<td>Achieving More with Mathletics</td>
<td>Kate Williamson</td>
</tr>
<tr>
<td>H10</td>
<td>1 to 7</td>
<td>Maths Learning Kits</td>
<td>Margaret Rockett</td>
</tr>
<tr>
<td>H11</td>
<td>1 to 8</td>
<td>English as a Foreign Language, Maths as a Foreign Practice</td>
<td>John Bradbury</td>
</tr>
<tr>
<td>H12</td>
<td>1 to 8</td>
<td>Making Maths Lessons Marvellous</td>
<td>Gabrielle West</td>
</tr>
<tr>
<td>H13</td>
<td>3 to 6</td>
<td>Promoting Numeracy Through Short and Simple Maths Games</td>
<td>Linda Baron</td>
</tr>
<tr>
<td>H14</td>
<td>3 to 8</td>
<td>Building Resilience to Build Problem Solving Capacity: Tasks Implemented for this Purpose</td>
<td>Gaye Williams</td>
</tr>
<tr>
<td>H15</td>
<td>3 to 10</td>
<td>Building Understanding in Middle Years – Number</td>
<td>Dr Ian Lowe</td>
</tr>
<tr>
<td>H16</td>
<td>4 to 9</td>
<td>Online Resources For Maths</td>
<td>Hang Nguyen</td>
</tr>
<tr>
<td>H17</td>
<td>4 to 10</td>
<td>Jack and Jill's Buckets</td>
<td>Damian Howison</td>
</tr>
<tr>
<td>H18</td>
<td>5 to 8</td>
<td>Extending Your Resources</td>
<td>Iren Dyka, Andy Dyka</td>
</tr>
<tr>
<td>H19</td>
<td>5 to 8</td>
<td>Working Memory and Automaticity: Numeracy Intervention in Secondary School</td>
<td>Steve MacPhail</td>
</tr>
<tr>
<td>H20</td>
<td>5 to 8</td>
<td>An Angle on Angles</td>
<td>Douglas Williams</td>
</tr>
<tr>
<td>H21</td>
<td>5 to 9</td>
<td>Using CensusAtSchool to Promote Statistical Literacy in Your Middle Years Classroom</td>
<td>Mary-Anne Aram</td>
</tr>
<tr>
<td>H22</td>
<td>5 to 10</td>
<td>Collaboration and the Development of Students' Reasoning Skills</td>
<td>Colin Shnier</td>
</tr>
<tr>
<td>H23</td>
<td>6 to 8</td>
<td>Proportional Thinking; from Fractions to Percentages</td>
<td>Jill Smythe</td>
</tr>
<tr>
<td>H24</td>
<td>6 to 10</td>
<td>Meaningful Activities to Develop Fraction Knowledge</td>
<td>Averil Lee</td>
</tr>
<tr>
<td>H25</td>
<td>7 to 9</td>
<td>Teaching for Depth: Where Maths Meets the Humanities</td>
<td>Ian Hauser</td>
</tr>
<tr>
<td>H26</td>
<td>7 to 10</td>
<td>Discover, Explore, Connect</td>
<td>Jennifer Nolan, Melanie Koetsveld</td>
</tr>
<tr>
<td>H27</td>
<td>7 to 11</td>
<td>Data-Loggers In Mathematics Classrooms</td>
<td>Martin Gregory</td>
</tr>
<tr>
<td>H28</td>
<td>7 to 12</td>
<td>Teach Locus with Geometer's Sketchpad</td>
<td>Karim Noura</td>
</tr>
<tr>
<td>H29</td>
<td>7 to 12</td>
<td>For the Novice ClassPad User</td>
<td>Anthony Harradine</td>
</tr>
<tr>
<td>H30</td>
<td>7 to 12</td>
<td>Making ICT Work for Mathematics - A UK Perspective</td>
<td>Douglas Butler</td>
</tr>
<tr>
<td>H31</td>
<td>7 to 12</td>
<td>Assessment and the Australian Curriculum</td>
<td>Richard Andrew</td>
</tr>
<tr>
<td>H32</td>
<td>9 to 10</td>
<td>Working Mathematically with the Casio ClassPad</td>
<td>Craig Telfefson</td>
</tr>
<tr>
<td>H33</td>
<td>9 to 11</td>
<td>Exploration of Trigonometric Functions Featuring an Inquiry Based Learning Task Extension Year 9</td>
<td>Sue Ditchfield, Alan Butterley</td>
</tr>
<tr>
<td>H34</td>
<td>9 to 12</td>
<td>Getting in Touch with TI-nspire CAS Touchpad</td>
<td>Neale Woods</td>
</tr>
<tr>
<td>H35</td>
<td>10 to 11</td>
<td>Using Ti-Nspire for Polynomial Graphing Activity</td>
<td>Shane Dempsey, Rhiannon Smith</td>
</tr>
<tr>
<td>H36</td>
<td>10 to 12</td>
<td>The new TI-Nspire CAS OS2.0/2.1 and the VCE</td>
<td>Russell Brown, Rodney Anderson</td>
</tr>
<tr>
<td>H37</td>
<td>11 to 12</td>
<td>CAS-Enabled Activities for the VCE Further Mathematics Classroom</td>
<td>Roger Wander</td>
</tr>
</tbody>
</table>
SESSION DETAILS
SESSION A: 10:45am - 11:45am Thursday 2nd December

AK1  Teaching ‘At Risk’ Students: Hume Numeracy Intervention Program

Mark Waters - Hume Region, DEECD
Pam Montgomery - Hume Region, DEECD

Keynote

Hume Region DEECD has developed a program for teaching ‘at risk’ students in Number/Structure. It has been trialled with students and classroom teachers in Prep through to Year 8. It has two components: the program framework; and training for classroom teachers. This session will give an overview of both components and then outline the capabilities developed for teaching ‘at risk’ students. These capabilities include close matching of teaching tasks to student strengths and needs, constructing effective fluency tasks for students, using high effect scaffolding techniques when teaching, building connected learning sequences and using effective prompts for building student independence.

Mark Waters has worked as a classroom teacher, mathematics coach, curriculum leader, and consultant. He currently works at Hume Region DEECD as a Numeracy Leader to provide teacher professional learning and school improvement in numeracy. With Pam Montgomery, Mark has developed and trialled the Hume Numeracy Intervention Program.

Pam Montgomery has worked as a classroom teacher, mathematics coach, educational researcher, and curriculum writer. She currently works at Hume Region DEECD as a Numeracy Leader to provide teacher professional learning and school improvement in numeracy. With Mark Waters, Pam has developed and trialled the Hume Numeracy Intervention Program.

AK2  Captivating Maths Problems for Your Classroom

David Shaw - Maths by Email
Jamos Somerville-McAlester - Tenix Questacon Maths Squad

Keynote

Many students are great at answering direct maths questions, but have difficulty applying - or choosing to apply - their mathematical knowledge to the real world. Puzzles can be the middle ground between simple textbook questions and real world problems. They guide students towards the mathematical tools they need, and then allow them to experiment. Puzzles develop problem solving skills, by allowing students to forge their own path. They develop reasoning skills by challenging students to prove that their approach finds the right answer. Moreover, puzzles are fun, and a student who enjoys maths is much more likely to succeed at it. Join us as we explore some of our favourite puzzles and explain why we think they are a vital part of the learning process.

David Shaw is the Editor of Maths by Email, a partnership between AMSI and CSIRO Education. David has a BSc from the ANU, majoring in Mathematics. David also devised and performed in shows with interactive theatre troupe Boho, including 'Food for the Great Hungers', an exploration of Australian history through complexity theory. Jamos Somerville-McAlester has spent the past 10 years developing interactive programs designed to spread enthusiasm for maths to people whose enthusiasm has been curbed. Over this time, he’s seen a lot of good things done well in a lot of schools, and wants to share these ideas with you.

A3  Grids and Strips. Where are They Leading?

Jan Cavanagh - Making Sense of Maths

Workshop

Oral language teamed with active group work make a great basis for investigating mathematical concepts in early childhood classrooms. Use of a strip mat and other grids enhance physical involvement, problem solving, and engagement.

Repeated as E2
A4  Creating Language Based Activities for Mathematics
Joanne Riddell - CEO Sydney Southern Region
Jackie Vella - CEO Sydney Southern Region
Michelle Coupland - CEO Sydney Southern Region
Workshop  Years: K to 8
This workshop will give teachers ideas on how to create talking and listening games to use in Mathematics. The games will encourage students development in the language of Mathematics.
Repeated as E4

A5  Neat Maths Software for Primary Schools
Tony Collison - School Software
Computer Workshop  Years: K to 8
This an opportunity for teachers to review and use the Worksheet Factory range of software. "Maths Resource Studio" allows teachers to create learning resources tailored to the needs of a single child or a whole group. It's simple and easy to use. The other software titles “Bingo” and “Vocabulary 4” can be customised to create activities that support learning in Maths, simple games and crosswords puzzles can be created to support a variety of learning activities in a classroom. (Commercial Presentation)
Repeated as F4

A6  1 Computer, 1 Data Projector, 1 Piece of Software
Douglas Williams - Black Douglas Professional Education Services
Workshop  Years: K to 10
Maths300 supports teachers to model what it means to work like a mathematician in best practice classrooms. It highlights learning features that fascinate, captivate and absorb kids. For some investigations one of those features is software and Maths300 has developed one piece with over 60 sub-programs to support and extend problem solving. It is used most fully when students can design and carry out their own experiments, in pairs, on their own computer, but given only one computer and a data projector, such as in an interactive whiteboard classroom, exciting things can still happen. The session will explore a smorgasbord of problems and link each to its software extension.
Not repeated

A7  Quadrilateral Quarrels: Classification in the Australian Curriculum
Allan Turton - Origo Education
Workshop  Years: K to 10
Would a rectangle by any other name still smell as sweet? Many syllabuses, including the Australian Curriculum, emphasise classification of 2D shapes. This classification usually has a strong focus on the family of quadrilaterals. Yet very little guidance is given and is often contradictory - it is no surprise that many students struggle with the topic. This session will investigate language and logic issues and provide suggestions on how to teach this important area.
Not repeated

A8  The Numeracy “Toolkit” - A Must Have for All Mathematicians
Sandra Knox - Private Consultant
Workshop  Years: P to 6
All mathematicians require the ‘tools’ of the trade. In this session all the requirements of a numeracy toolkit will be revealed. Games and problem solving activities will be introduced using the contents of the toolkit with an emphasis being placed on the skills of working mathematically.
Repeated as B4

A9  Multimedia and Mathematics
Susan Thomas - Southern Metropolitan Region
Geraldine Pitts
Elizabeth Piemontese
Lecture  Years: P to 6
A variety of ways to use ICT for enriching real life Mathematics investigations.
Not repeated

A10 Reshaping Place Value Activities for Differentiation
Kelly Utting - Southern Metropolitan Region - OSR
Elizabeth Wilson - Southern Metropolitan Region - OSR
Workshop  Years: P to 6
Participants will have the opportunity to explore hands-on place value activities, and reshape them to cater for supporting and extending student learning. Ideas will be shared to provide an engaging differentiated curriculum...
suitable for whole class and small group delivery within the classroom.  

Repeated as F6

A11 Mathletics for Beginners
  Claire O’Connor - 3P Learning

Computer Workshop  
This session is for schools that are thinking of purchasing or are brand new to Mathletics. We will be discussing some of the benefits of using Mathletics in your Maths/Numeracy classes as well as looking at the basic features in the ‘Student Centre’ and ‘Teacher Centre’. (Commercial Presentation)

Repeated as E9

A12 Independent Activities to Support the Numeracy Classroom
  Marilyn Holmes - University of Otago

Workshop  
The most common question teachers ask us in New Zealand is “What are some independent activities I can give to the children?” This workshop will give some ideas through practical exploration.

Repeated as B15

A13 Implementing a Whole School Approach to Multiplication and Division Mental Computation
  Angela Rogers - St Monica’s Primary School
  Bernadette Long - St Monica’s Primary School

Workshop  
As Numeracy Co-ordinators at St Monica’s we have implemented a whole school approach to the teaching and learning of mental computation. This session will involve a description of the process we followed to implement the multiplication and division part of our program. The session will also include practical ideas such as the resources, activities and materials we found useful when setting up this program.

Repeated as B16

A14 A Different Slant on Numeracy Intervention
  Sue Gunningham - Educational Consultant
  Sharon Taylor - Western Metropolitan Region, DEECD
  Janice Mesiti - The Grange P-12 College

Lecture  
This session will provide an overview and share the experiences of teachers participating in a Numeracy Intervention Pilot being run in selected primary and secondary schools in the Wyndham Network of Western Metropolitan Region during 2010. The Numeracy Intervention Pilot is a program developed by Professor Peter Sullivan. Unlike other intervention programs, the Numeracy Intervention Pilot aims at preparing the students to fully participate in the mathematics lesson through introducing students to the key concepts and content of the maths lesson prior to the lesson being taught.

Repeated as G15

A15 An Activities Based Approach for Developing Understanding and Fluency in the Mathematics Classroom
  George Anderberg - The Mathematics Connection

Workshop  
This workshop goes beyond Working Mathematically with the inclusion of the 4 proficiency strands from the National Curriculum and how to apply them in a practical way that addresses the needs of NSW teachers and students. Emphasis will be on the “Understanding” and “Fluency” strands and will provide participants with a number of hands-on activities and suggestions on ways to ‘tweak’ them to provide support for a wide range of student abilities. Participants will leave with activities and teaching strategies that are relevant to the ideals of the National Curriculum and they will be able to present this workshop to teachers at their school. George Anderberg is a private mathematics consultant to schools working for the “Mathematics Connection”.

Not repeated

A16 Using NAPLAN and Other Resources to Improve Outcomes for Students
  Dr Ian Lowe - The Mathematical Association of Victoria

Workshop  
By comparing school and state performances on each item on a NAPLAN test, schools can identify areas of underperformance. Ian will explain this process and make specific suggestions about how the Mathematics Developmental Continuum and other resources can assist a school to target areas of need.

Repeated as E14
A17  Google SketchUp Showing in 3D!
    Antje Leigh-Lancaster - Australian Mathematical Sciences Institute (AMSI)

Computer Workshop  Years: 3 to 10
Google SketchUp is a free software package, which can be used to explore, explain and present ideas using 3D models. This workshop is aimed at beginner users with no prior experience. Participants will learn how to use the basic features of the software and explore possible classroom applications and ideas in particular in the content area of Space.
Repeated as F13

A18  Providing Insights Into Student Thinking to Aid Their Success
    Alec Young - ITE

Lecture  Years: 3 to 12
It is universally recognized that quality teaching is the most important factor in improving students’ outcomes. I will demonstrate how you can assess the paper work of twenty students in less than two minutes and disclose the nature of their errant thinking to help you better understand their learning needs. These insights will also include vital knowledge of students’ abilities and identify gaps in their learning not observable under conventional assessment. You will see how this exceptionally powerful feedback can help you improve your teaching effectiveness.
(Commercial Presentation)
Repeated as F14

A19  Data Detectives - Making it Real
    Shona McRae - University of Otago College of Education

Lecture  Years: 4 to 7
A New Zealand classroom experience based on a statistical investigation using the whole statistical enquiry cycle. That is, the Problem, the Plan, the Data, the Analysis and the Conclusion. Includes using technology to support the development of questioning, and student reflection on the process.
Not repeated

A20  Using Calculators/Computers with Primary Maths Students or Struggling Year 7/8 Students
    Robert Rook - Mathplot
    Carol Moule

Computer Workshop  Years: 4 to 8
Ever thought you could get your students excited about using a calculator. Ever thought you shouldn’t have students using a calculator this young. Come see why it will help their mathematics and enthusiasm about coming to your mathematics class. This session will run through using both Calculator (TI-15) and software (TI-15 interactive computer version of TI-15 plus teaching resource package) in the classroom for Years 4-6 and struggling/integration students in Years 7/8. Among the topics covered are counting, place value, number, fractions, time, money, to name a few. All attendees will receive a free TI-15 calculator and a licensed version of the software to load on their personal computer to use. (Commercial Presentation)
Repeated as B18

A21  Using Games and Tasks as a Basis for Meaningful Maths Learning
    Laurel Smith - Western Metro Region
    Barbara Slusarczyk - Western Metro Region

Workshop  Years: 4 to 9
Numeracy Coaches and Teachers in the Wyndham Network have been working with Peter Sullivan on developing Mathematical tasks to support the differentiation of lessons in their classrooms. These tasks cater for a range of needs and support engagement in the middle years classrooms. This session will provide examples of the lesson structure and a range of tasks and games that have been used to facilitate connections and build mathematical understandings in our classrooms.
Repeated as E16

A22  So This is Fractions and What Will You Do?
    Naomi Coleman - Gippsland Regional Office
    Neil Cockburn - Korumburra Secondary College
    Alan McMahon - Wonthaggi Secondary College
    Peter McCaughan - Leongatha Secondary College
    Melina Bath - Mirboo North Secondary College

Workshop  Years: 5 to 8
What rich tasks will support student learning of the big ideas in fractions in the middle years? Discover South Gippsland Network’s journey in developing a collaborative unit of work across 4 secondary schools. This workshop will assist teachers to use data to inform their teaching of fractions, to identify student misconceptions, and to use multiple representations, differentiation and scaffolding as teaching approaches. Our team will present learning
activities within a unit, that allow multiple entry and exit points and participants will have an opportunity to experience these rich lessons in a hands-on way. Halve your fear of teaching fractions!

Repeated as G20

A23 Engaging Middle Years Students in Mathematics Using the MATHOMAT
Ted Marks - Albion North Primary School
Steve Lewis - Complete Calculations Consultant

Workshop  Years: 5 to 9
Participants will investigate how using the Mathomat Geometric template and online Mathomat, can effectively close the achievement gap for disengaged students as the Mathomat template provides an effective vehicle through which students can demonstrate their mathematical thinking. We will explore investigations using the Mathomat geometric template. Sample lessons will be workshopped and provided to participants. We will also investigate how the Mathomat Online can be used with Interactive-Whiteboards in the state-of-the-art classrooms. (Commercial Presentation)

Repeated as E20

A24 Meaningful Mathematics - Statistics and Probability
Sharon London - Cambridge HOTmaths

Workshop  Years: 5 to 10
Ready-to-use activities and investigations online at any time you need them. In this workshop you will take part in hands-on activities and investigations from Statistics and Probability, designed to fit perfectly into your teaching. Discover new ways to involve and engage your students in meaningful mathematics. *All activities are Australian Curriculum friendly and can be found on the Cambridge HOTmaths website. (Commercial Presentation)

Repeated as B25

A25 The Classroom Organiser - Planning and Tracking Student Progress in the Classroom
Bill Murray - Mentone Girls Secondary College

Workshop  Years: 5 to 12
The CLASSROOM ORGANISER is an organisational tool that helps the teacher to prepare topic plans that allow for self paced student learning. Student progress can then be tracked in a timely manner. The end result is an individualised student program that provides evidence of student progress. It also helps to improve teacher organisation which helps to create very significant time savings for teachers. Finally the improved lesson organisation and simple, visual tracking of student progress leads to better engagement for students. The workshop will show you how to take advantage of model lesson plans to give you a start and set up the system very quickly and efficiently.

Repeated as G22

A26 Design of Mathematical Investigation Task in Problem Solving Context
Dr Tin Lam Toh - National Institute of Education, Nanyang Technological University, Singapore

Lecture  Years: 6 to 9
This workshop will bring the participants through the processes involved in designing tasks for mathematical investigation tasks, within the problem solving framework curriculum, through a wide range of examples from the mathematics syllabus. Topics will range from the elementary school algebra to high school geometry.

Repeated as C26

A27 There’s A Problem To Solve
Mark O’Brien - Mathematical Association of WA

Lecture  Years: 6 to 10
“There’s a Problem To Solve – Working Mathematically in the Middle School” is a series of three books published by MAWA and written by WA teachers Glenys Stade and Paula McMahon. The activities in book 1 are appropriate for Years 6 and 7, book 2 is for Year 8 and book 3 is for Year 9. Each book also comes with a CD containing PowerPoints of problems and techniques plus other resources. This presentation goes over what’s in the books, what the series offers teachers and students and how to make the best use of the resource in your classroom. The presenter Mark O’Brien is the Professional Officer for MAWA as well as working part time for DET WA and managing the Online Teachers’ Resource Network. The material in this presentation supports the Proficiency strands of the Australian Curriculum. (Commercial Presentation)

Not repeated

A28 The Importance of Exploration Task to Consolidate Mathematical Thinking and Understanding
Michelle Moses - Elisabeth Murdoch College

Workshop  Years: 7 to 10
Most students in the Middle Years are not ready for abstract mathematics. This workshop will give teachers an idea as to why concrete tasks are important to consolidate mathematical understanding. Concrete activities demonstrated
at this workshop will assist and develop your students understanding and thinking in number as well as address mathematical misconceptions.

Repeatead as F26

A29  Students Use a Video Presentation to Help Their Maths Skills – Our Experiences
Kathleen Ireland – Bendigo Senior Secondary College
Geoff Simmonds – Bendigo Senior Secondary College
Lecture  Years: 7 to 11
Students were given an open-ended assignment to prepare a video explaining a mathematical concept of their choice. The task catered for many different learning styles and can be applicable to all age groups. “To teach it, is to learn it”. Did it work? Come along and hear how we organised it, see some examples, and how we assessed it.

Repeatead as B31

A30  Some Rational Number Computations
David Leigh-Lancaster - Victorian Curriculum & Assessment Authority (VCAA)
Computer Workshop  Years: 7 to 12
In this workshop we will use the Computer Algebra System (CAS) Mathematica to explore some aspects of rational numbers and rational number computations. No previous experience with Mathematica is required.
Notes: Participants should be familiar with a Windows software environment.

Repeatead as F30

A31  Visual Models for Multiplying Fractions
Jim Hogan - University of Waikato
Workshop  Years: 7 to 12
Seeing where all the numbers come from when multiplying fractions and decimals helps to understand the process. The question “What is my one?” is given meaning. This workshop relies on using the common array method for modelling multiplication to explain simple and complex multiplication of both fractions and decimals.

Repeatead as F31

A32  The Australian Mathematics Curriculum: An Incentive to Teach Mathematics Conceptually?
Richard Andrew - Teacher Training Australia
Workshop  Years: 7 to 12
It could be argued that The Australian Curriculum, through its four proficiency strands, is calling for a more conceptual approach to teaching maths, (different to the traditional rules-based approach). In this session you will:
◊ Investigate/receive several teaching ideas/resources which align to the new curriculum.
◊ See that teaching conceptually can be fun and dynamic!
◊ See that this new approach is a paradigm shift in teaching!
This one hour session can only touch this big topic. However, you will be introduced to some Online PD which is pedagogically aligned with the Australian Curriculum. Hence this is classified “Commercial Presentation”.

Repeatead as F32

A33  How to Run a CAS Lesson with Little or No Previous Experience
Rodney Anderson - Moreton Bay College
Workshop  Years: 8 to 10
Participants in this session will step through a lesson and see how new support material makes it possible to run a lesson on TI-Nspire CAS without having touched a button before. Each step of the lesson that involves calculator functionality is supported with step by step ‘how to’ video tutorials. Participants will be provided with a selection of lessons with full supporting documents including student handouts, teacher notes and suggested answers. If you are new to CAS or still learning to navigate around TI-Nspire then this is the session for you!
Not repeated

A34  Putting Autograph to Work (Younger Students)
Douglas Butler - iCT Training Centre, Oundle (UK)
Workshop  Years: 8 to 10
With so many software resources available, what makes Autograph special? Douglas will illustrate lesson plans for the younger pupils, showing some of the pedagogically rich aspects of Autograph. Pupils can be easily drawn in to an interactive involvement with what is happening on the screen through the judicious use of slow plot and controlled animations, and the 3D element is of course a special bonus. The inclusion of images allows new insights into applications that strongly support the STEM agenda too. A ‘walk-about’ graphics tablet and Autograph’s new “Save to Web” feature will be demonstrated. Weblink: www.tsm-resources.com (Commercial Presentation)
Notes: Delegates can bring Laptops - software will be provided.
Repeatead as F34
A35 Interesting Activities and New Resources for the Teaching and Learning of Proof  
*Dr Paul Brown - Carmel School*

**Lecture**

Proof is the unique selling point that distinguishes mathematics from experimental science. Students can be taken beyond pattern recognition to conjecture and the many varieties of proof. Teachers can combine their teaching of algorithms with proof of why they work. The proposed National Curriculum gives new emphasis to the teaching of proof. This session will provide many teaching ideas and an introduction to the available resources, including teacher Paul Brown’s newly-released book on this subject. (Commercial Presentation)

Repeated as E34

A36 Reworking Working Mathematically  
*Diane Farrell - John Monash Science School*  
*Luke Bohni - John Monash Science School*  
*Ewan Campbell - John Monash Science School*

**Workshop**

A new school and a new opportunity to engage students in Mathematics at John Monash Science School. The aim was (is) to renew the focus on mathematical thinking and to use the Working Mathematically standard as an overarching principle to our pedagogy. In addition, JMSS is an open plan, technology-rich environment where classes are timetabled together to encourage team teaching. We will discuss our planning, our triumphs and, most importantly, our failures.

Repeated as B36

A37 Working Mathematically with the Casio ClassPad  
*Craig Tellefson - Academy of Mary Immaculate*

**Workshop**

In this workshop the Casio ClassPad is used to present an approach to Working Mathematically. Participants will work through investigations that use the main Applications of the ClassPad, with particular emphasis on the Geometry and Spreadsheet Applications. ClassPads will be available for all participants and no experience with this technology is assumed. All ClassPad files will be provided for participants.

Repeated as H32

A38 NETschool. Mentoring + Maths + Flexible Learning Environment = Successful Learner  
*Cherie Fist - Bendigo Senior Secondary College*  
*Jim Cowie - Bendigo Senior Secondary College*

**Workshop**

NETschool Bendigo re-engages young people (15-20) who have a desire to re-integrate with learning. Learners are not attending a mainstream school for a variety of reasons - mental health issues, pregnancy, family difficulties. Learning can take place at the NETschool centre, or online via the NETschool Bendigo online community. As Bendigo Senior Secondary College (BSSC) teacher I work with the mentors at NETschool to reach the mathematical goals the learners have individually decided in their personal learning plans. Learners complete work for VCE Foundation Maths and VCE General Maths. Learners attend BSSC classes when appropriate confidence level is reached. A maths skills program also runs. Diagnostic testing and career paths are considered. Learners are referred from BSSC, Year 7-10 schools and community organisations.

Repeated as F37

A39 ClassPad Tips and Tricks  
*Charlie Watson - The Tuition Centre*

**Workshop**

This workshop is a hands-on session for teachers to explore some of the not so obvious features of the Casio ClassPad that are useful for them and their students. We will be jumping between Main, eActivities, Spreadsheets, Geometry and most other applications. Participants are assumed to have a reasonable working knowledge of ClassPad to keep up with the hands-on activities, but if you don’t, just come along, sit back and let the ideas wash over you. Bring your own ClassPad where possible and you can load copies of the activities onto it. There will also be ClassPad’s to borrow.

Notes: Charlie has presented similar sessions for over 10 years at MAWA State Conferences and Conventions and has created over 130 ClassPad help sheets and videos on the popular ClassPad Help Series site at www.classpad.com.au.

Repeated as B37
A40 Teaching Year 10 with CAS
Bozenna Graham - Wesley College
Lecture
Years: 10 to 10
The presenter will share her experiences about teaching Year 10 students with the CAS technology. Selected classroom activities, problem solving tasks, projects and investigations will be demonstrated and discussed. A TI-Nspire CAS calculator will be used in the presentation.
Not repeated

A41 Assessment Tasks in Maths Methods CAS with the Casio ClassPad
Maria Schaffner - Penleigh and Essendon Grammar School
Cathy Devlyn - Penleigh and Essendon Grammar School
June Warren - Penleigh and Essendon Grammar School
Lecture
Years: 10 to 12
This session is designed to assist those teachers new to teaching Maths Methods CAS or those who wish to improve their skills. It will explore the use of the Casio ClassPad in the VCAA Methods CAS examination and school based assessment tasks. Participants will be encouraged to work along with the development of solutions. Please bring your Casio ClassPad. A limited number of ClassPads will be available on the day.
Notes: Please bring your Casio ClassPad to this session.
Not repeated

A42 TI-Nspire with General Mathematics
John Llewelyn - Bendigo Senior Secondary College
Stuart Payne - Bendigo Senior Secondary College
Workshop
Years: 11 to 11
A practical workshop to assist teachers who might be considering a similar venture. Step by step assistance in using TI-Nspire to solve problems. Topics to be considered may include linear graphs, algebra, statistics, coordinate geometry, and vectors. There will be discussion of how calculators were used in this context.
Notes: Please bring your own TI-Nspire. Calculators MAY be supplied by TI for this session.
Repeated as B39

A43 Virtual Learning Network - Mathematical Methods Online
Kyle Staggard - Bendigo Senior Secondary College
Leah Whiffin - Bendigo Senior Secondary College
Computer Workshop
Years: 11 to 12
One class of Mathematical Methods CAS Unit 3 & 4 has successfully completed this course entirely online in 2010, through the Virtual Learning Network established at Bendigo Senior Secondary College. The details of this exciting project, including the structure and organisation, the methods used to develop materials and the results of formal evaluations of the project will be discussed during the workshop. Participants will have the opportunity to explore the learning materials available to students through the Virtual Learning Network site.
Repeated as B40

A44 Specialist Mathematics 2011 and Beyond
Allason McNamara - Mount Scopus Memorial College
Dr Philip Swedosh - St Leonard’s College
Dean Lamson - Ballarat Clarendon College
Lecture
Years: 11 to 12
Philip, Allason and Dean are members of the Specialist Mathematics Setting and Marking Panels. They will outline common errors which have been made on previous examination papers with a view towards the 2011 examinations.
Notes: Bring previous year’s examination papers
Not repeated

A45 Analysing the Birth Month Problem Using TI-Nspire CAS
Amanda Legg - Lilydale High School
Darren Grantham - Lilydale High School
Workshop
Years: 11 to 12
The birthday problem is one of the most widely-studied probability problems in senior mathematics classrooms. However the problem can be difficult to analyse, due to sample size considerations. In this TI-Nspire CAS hands-on session, we will use simulation and theoretical considerations to study the lesser-known but easier-to-analyse birth month problem. Some knowledge of the TI-Nspire CAS Lists and Spreadsheet application will be assumed.
Notes: Please bring TI-Nspire CAS calculator.
Repeated as E40
‘Vedas’ are treasury of knowledge. The word ‘Veda’ is taken from ‘Vid’ means “to know”. The Vedas are the oldest literature. With the passing of time, we lost a great part of this knowledge and in this reference Vedic Mathematics is no exception. In modern times we find a renewed interest in Vedic knowledge. The Vedic Mathematics is so gripping and fascinating that once a person starts taking interest in it, he/she continues doing so and finds ways on its own. Vedic Maths provides very easy, one line, super fast methods along with magic speed cross checking system. In this presentation I will present glimpses of Vedic Mathematics and to show how its learning makes you thrilled by its super fast magic speed computation. It is difficult for anyone to believe it until one actually uses its methods.

Repeated as FG-2

AB-3  A Land Surveyor’s Mathematical Toolbox
Dr Allison Kealy - University of Melbourne
Julie Tillyer

Workshop
This hands-on, interactive workshop would suit teachers looking for activities that demonstrate practical applications of geometry and trigonometry. Participants will have access to state-of-the-art surveying equipment and will undertake case studies such as setting out a soccer field, determining the height of a building and measuring how far a javelin has been thrown. These activities are also included in the Student Surveying Days, which are free Mathematics excursions sponsored by the Surveying Task Force whereby students undertake practical Surveying activities with the help of fully qualified Surveyors.

Repeated as FG-8

AB-4  Check Out This ARS! (Audience Response System)
David Tynan - Aquinas College

Workshop
Audience Response Systems (ARS) such as i-Clicker have been used at tertiary institutions for about 5 years (eg see Wikipedia). In this workshop we look at ways that this technology might be useful in assisting student learning in the Secondary mathematical classroom. Participants will make use of the wireless TI-Nspire Navigator ARS, although the focus will be on general applications of such systems.

Repeated as CD-10

AB-5  High-Speed Beanie Kids and Quadratic Functions
Anthony Harradine - Baker Centre, Prince Alfred College

Workshop
With the help of two Beanie Kids, high-speed video footage and of course mathematics, Anthony will share a wonderfully engaging and mathematically rich activity that your students (across the ability spectrum) will never forget. You will develop an authentic mathematical model, consider its limitations, use it to predict the outcome of a very funny event and perhaps best of all, you will be able to ‘see’ how accurate your prediction was. You will leave with everything you need to use the activity in class, just print and enjoy the experience.

Not repeated
AB-6  Advanced Features of TI-nspire CAS
Neale Woods - Distance Education Centre Victoria

Workshop  Years: 11 to 12
In this workshop, participants will have a hands-on opportunity to learn some advanced features of TI-nspire CAS. Areas covered will include vector diagrams, projectile motion, programming and the algebraic capabilities of the Lists & Spreadsheet application. Participants need to provide their own TI-nspire CAS calculator or software and should be an intermediate to advanced user.

Notes: Participants should upgrade to version 2.0 prior to this workshop. Using a laptop is preferable to using a calculator. Not repeated.

SESSION B: 12:00pm - 1:00pm Thursday 2nd December

BK1  Lesson Study
Kathryn Palmer - Western Metropolitan Region

Keynote  Years: P to 6
Using ‘Japanese Lesson Study’ as a way for professional learning teams to improve the quality of the learning experiences they provide to their students. I have used this model to significantly improve teaching and learning in the classroom as well as providing support for differentiating the curriculum. In this session I will provide an overview of the journey I have undertaken as a regional numeracy coach in Primary schools.

For the past 3 years Kathryn Palmer has taken up the role of regional numeracy coach with western metropolitan region. A major component of her present role is to advise teachers and schools on best numeracy practice. Prior to this she had been a primary teacher for over 20 years and began her career as a secondary mathematics teacher ranging from Year 7 to Year 11 at an independent catholic school for over 6 years. She has always been extremely passionate about the teaching of mathematics and currently loves the position she holds because it gives her opportunities to share her vast knowledge with many teachers.

B2  Creating Unique Learning Activities
Tony Collison - School Software

Workshop  Years: K to 9
Worksheet factory software allows teachers to create learning activities that closely reflect the needs of their students. They do not replace good teaching but they certainly enhance and support the process. Class worksheets, home study activities are easily created, modified, printed and saved for next year. Outcome and foundation statements are easily incorporated as are the levels of achievement. Well worth a look and a hands-on session. (Commercial Presentation)

Repeated as H2

B3  A Worksheet Free P-3 Maths Classroom
Robyn Greenwood - Laurimar Primary School

Workshop  Years: P to 3
It is important to build the foundations of maths learning in the junior school grades. Having a dynamic, ‘hands-on’ maths classroom is an important step. Let’s throw away the worksheets and get down to real life maths learning.

Repeated as C3

B4  The Numeracy “Toolkit” - A Must Have for All Mathematicians
Sandra Knox - Private Consultant

Workshop  Years: P to 6
All mathematicians require the ‘tools’ of the trade. In this session all the requirements of a numeracy toolkit will be revealed. Games and problem solving activities will be introduced using the contents of the toolkit with an emphasis being placed on the skills of working mathematically.

Repeated as A8

B5  The Mathematics Continuum (Prep-6)
Sharyn Livy - The Mathematical Association of Victoria

Lecture  Years: P to 6
Throughout this year I have met many teachers who are not aware of the valuable teaching resources available on the DEECD website. This workshop will provide participants with an overview of the continuum. Discussion will also include how Primary teachers can implement a differentiated curriculum using a range of mathematics resources. This will focus on looking at ways of targeting student learning for the range of different VELS levels within a class grouping.
B6 Making the Most of Mathletics in the Primary School Setting  
Andrew Nicholls - 3P Learning

Computer Workshop  
This workshop focuses on how to best use Mathletics to meet student needs and improve results in the Primary classroom. We will be discussing different models of effective use of Mathletics and there will be an opportunity for participants to share their own ideas on how the resource can best be used. We will be revisiting some of the functions in the ‘Teacher Centre’ and how they can be utilised to maintain student engagement and help students to achieve better results. We will also be discussing some different modes of differentiation. (Commercial Presentation)

B7 Mathematics in Art and Architecture  
Dr Jeanne Carroll - Victoria University

Lecture  
Starting with a look at the mathematics of the luscious Guggenheim Museum designed by Frank Gehry at Bilboa, which features on all of the conference publications this year, we will continue our mathematical tour of art and architecture. I will select from my favourites and together we will explore the mathematical quirks and questions associated with great buildings and artistic masterpieces from the past, present and the future.

B8 How Does the Stockmarket and Superannuation Work - And Why Should I Care?  
Robert Vermay - St Paul's Anglican Grammar School

Lecture  
Aspects of financial literacy are mandated in the new national curriculum. This seminar can help you to better understand the stockmarket, investment and superannuation and is likely to be directly relevant to your personal circumstances as well as to your teaching. This lecture will touch on topics such as investing, indices, world markets, buying and selling shares, dividends, managed funds, self-managed superannuation, risks, traps and opportunities. The presenter is a mathematics teacher, and not a licensed financial advisor, who suggests that time to educate yourself may be one of your best investments.

B9 Developing a Whole School Approach to Mental Computation  
Dr Paul Swan - Edith Cowan University

Workshop  
Many mental strategies to assist children to develop computational fluency have been documented. In this session an overall approach to developing mental computation will be presented. Links will be made to the Australian Curriculum and tasks and activities that will help promote students’ mental computation ability.

B10 Teaching or Practice - The Basic Facts  
Michelle Wetherall - Team Solutions - University of Auckland  
Vanitha Govini - Team Solutions - University of Auckland

Workshop  
Do we teach the basic facts or continually practice them? This session will look at how we might teach them so that students will be able to use them. We will focus on ways to teach them that make sense and use resources you already have.

B11 What is Division and Why Does it Seem so Difficult?  
Kat Freeman - University of Otago College of Education

Workshop  
This workshop was designed in my role as a numeracy facilitator for the University of Otago College of Education to address the needs of teachers to improve their own personal understanding of numeracy content. This is a practical hands-on workshop using materials to develop teachers own understanding of division strategies and the development of division concepts in children.

B12 Hooray for Martin Gardner!  
Dr John Gough - Deakin University

Lecture  
Martin Gardner died last May (21-10-1914 - 22-5-2010). I make no claim to be a Gardner expert. But as I regard...
him as one of my two main mathematics education inspirations (the other is W.W. Sawyer), I want to repay some small part of my debt to Gardner’s remarkable career by sharing some of his best games, problems, and puzzles - “his” not because he created them, but because he explained them so brilliantly - and to touch on his Lewis Carroll annotations. Let’s begin with polyominoes, the Soma cube, Eleusis, Hex, Phi…

Notes: Bring YOUR favourite Gardner gem, to share with us.

Not repeated

B13 MathsOnline.com.au - It's Far Better Than You Think!
Paul Waddell - MathsOnline.com.au

Workshop
Novice - With over 1.15 million Australian users by July 2010, projected to break the 1.5 million barrier easily by years end, most Teachers, Students and Parent users THINK they are getting the most out of this fabulous program. Find out how the curriculum can be covered more thoroughly and in a shorter time-frame, how 10-20 minutes can be saved from every one of your lessons, how formative assessment becomes an exercise that is thorough, meaningful and easier to administer, how schools won’t need text-books anymore and Parents can save $Hundred’s on Maths tutors every year. MathsOnline... your 24/7 Maths Buddy. While we enjoy the sponsorship of McDonald’s for our High School program, which is likely to cover 2011 as well, we have not at this point secured sponsorship for our Primary Program which was launched in August and will be in full swing by December. While we are in talks with a few suitable sponsors at the moment, we can’t guarantee that this part of our program will not be a commercial enterprise, in that people MAY have to pay for it. We will be entirely upfront with where we are at as things progress on all of this.

Notes: Sessions are available for MathsOnline novices (1 hour) and for those who are experienced (2 hours) on each day of the conference. Laptops with wireless internet connectivity are encouraged, but not necessary at any session.

Repeated as E10

B14 Bridging the Gap - Moving Children from Counting to Breaking up Numbers
Anne Milburn - TEAM Solutions - University of Auckland
Fiona Fox - TEAM Solutions - University of Auckland

Workshop
Years: 2 to 6
There are many students who have difficulty making the transition from being counters to part-whole thinkers. This is often due to a gap in number knowledge including place value and basic facts. This is a practical hands-on workshop which includes ideas and activities to assist teachers to bridge this gap. Attendees will explore the pedagogy behind children’s thinking as well as games and activities to take away with them.

Repeated as F11

B15 Independent Activities to Support the Numeracy Classroom
Marilyn Holmes - University of Otago

Workshop
Years: 3 to 5
The most common question teachers ask us in New Zealand is “What are some independent activities I can give to the children?” This workshop will give some ideas through practical exploration.

Repeated as A12

B16 Implementing a Whole School Approach to Multiplication and Division Mental Computation
Angela Rogers - St Monica’s Primary School
Bernadette Long - St Monica’s Primary School

Workshop
Years: 3 to 6
As Numeracy Co-ordinators at St Monica's we have implemented a whole school approach to the teaching and learning of mental computation. This session will involve a description of the process we followed to implement the multiplication and division part of our program. The session will also include practical ideas such as the resources, activities and materials we found useful when setting up this program.

Repeated as A13

B17 Students’ and Teachers' Use of ICT in Primary Mathematics
Dr Esther Yook-Kin Loong - Deakin University
Brian Doig - Deakin University
Ass Prof Susie Groves - Deakin University

Lecture
Years: 3 to 6
This paper reports on the findings of a research project that investigated the use of Information and Communication Technologies (ICT) in Primary mathematics in an urban and rural network. Surveys and semi structured interviews were held to obtain insight into teachers’ and students’ perceptions and attitudes towards the usage of ICT in the teaching and learning of mathematics. The presentation will highlight the findings and include a discussion on the types of ICT that students use in and out of school to learn mathematics.

Repeated as F13
B18 Using Calculators/Computers with Primary Maths Students or Struggling Year 7/8 Students

Robert Rook - Mathplot
Carol Moule

Computer Workshop

Years: 4 to 8

Ever thought you could get your students excited about using a calculator. Ever thought you shouldn’t have students using a calculator this young. Come see why it will help their mathematics and enthusiasm about coming to your mathematics class. This session will run through using both Calculator (TI-15) and software (TI-15 interactive computer version of TI-15 plus teaching resource package) in the classroom for Years 4-6 and struggling/integration students in Years 7/8. Among the topics covered are counting, place value, number, fractions, time, money, to name a few. All attendees will receive a free TI-15 calculator and a licensed version of the software to load on their personal computer to use. (Commercial Presentation)

Repeated as A20

B19 Exploring Maths with the MATHOMAT Template

John Lawton – Objective Learning Materials

Workshop

Years: 4 to 9

Learn how to use this widely available, and inspiring, teaching aid to engage students with key concepts in the maths curriculum. Participants will spend most of their time in this workshop engaged in groups completing three hands on challenges with the MATHOMAT template. These challenges will be introduced using the on-screen Mathomat drawing environment, video clips from other professional development sessions with Mathomat and the interactive and printed lesson plans that are available for use with Mathomat. The materials used in the workshop may be retained for immediate implementation of the skills and knowledge learned during the workshop. (Commercial Presentation)

Repeated as F15

B20 Problem Solving – A Grade Six Primary School Experience

Ian Bull - St Kevin’s College

Lecture

Years: 5 to 8

Problem solving in the mathematics classroom can present students with the opportunity of using different thinking processes as well as being lots of fun. It can be used to teach students a range of skills that are difficult to show in ordinary mathematics lessons. The problem solving program that has been run at St Kevin’s College, as well as involving all students in the class, has been able to challenge all students and extend the high achieving students. Details of the program will be presented. (Commercial Presentation)

Repeated as C19

B21 Just Get Me There!

Sue Inness - Techxellent Training Solutions

Workshop

Years: 5 to 9

This workshop will challenge you to get a wheeled vehicle from one point exactly to another point. Here we’ll use Lego NXT robots to explore the relationship between degrees of rotation, tyre circumference and time over distance? Excel will help us see this relationship and use our findings in a fun quest. These robots make math’s fun for disengaged students and help them see the point of working with numbers, along the way they will discover how a speedo works.

Not repeated

B22 Problem Solving Strategies Using On-Line Enablers

Mark Graber - Curtin University

Computer Workshop

Years: 5 to 10

Children seem to be natural problem solvers and delight in the challenges that are provided for them. Teachers who are careful observers of what children do can begin to provide many opportunities for helping them build their skills in problem solving. At the same time, it is important to let children create and solve some of their own newly discovered problems. As the emphasis has shifted from teaching problem solving to teaching via problem solving many writers have attempted to clarify what is meant by a problem-solving approach to teaching mathematics. During this session we will address the opportunities that MAWA’s “Have Sum Fun On-Line” presents towards developing problem solving skills in mathematics classrooms.

Repeated as F20

B23 Building Understanding in Middle Years – Algebra

Dr Ian Lowe - The Mathematical Association of Victoria

Workshop

Years: 5 to 10

Participants will engage in some key activities and understandings that can both motivate students and enhance their understandings. Areas covered will be algebraic functions, equations, expanding and factorising - all both linear and quadratic.
B24  To Blog or Not to Blog?  
Jeff Trevaskis - Mooroopna Secondary College  
Lecture  
Years: 5 to 10  
Blogging is powerful. This presentation will show how your Mathematics teaching will benefit from setting up your own blog and looking at other blogs as part of your professional reading. A number of different uses for class blogs will be explored. You will come away with plenty of ideas and resources.

B25  Meaningful Mathematics - Statistics and Probability  
Sharon London - Cambridge HOTmaths  
Workshop  
Years: 5 to 10  
Ready-to-use activities and investigations online at any time you need them. In this workshop you will take part in hands-on activities and investigations from Statistics and Probability, designed to fit perfectly into your teaching. Discover new ways to involve and engage your students in meaningful mathematics. *All activities are Australian Curriculum friendly and can be found on the Cambridge HOTmaths website. (Commercial Presentation)

B26  Students’ Perceptions of Mathematics Teaching and Learning During the Middle Years  
Catherine Attard - University of Western Sydney  
Lecture  
Years: 6 to 8  
This presentation will report the findings of a longitudinal study of engagement in middle years mathematics. A group of 20 students participated in individual interviews, focus group discussions and classroom observations over the course of their transition from Primary to Secondary school in New South Wales. The students identified teachers they perceived to be ‘good’ mathematics teachers. Pedagogies that maintained engagement in mathematics and those that did not were explored along with students’ desired attributes of ‘good’ mathematics teachers.  
Not repeated

B27  Meaningful Activities to Develop Fraction Knowledge  
Averil Lee - University of Otago, New Zealand  
Workshop  
Years: 6 to 10  
The aim of the workshop will be to provide a range of interesting ways to consolidate the ideas of fractions. Some of these activities can be used with whole class or used for independent activities. They will help to provide a model for teaching the underlying principles that surround fractions. This workshop will be very practical and the participants will be involved in participating in the games and activities.  
Notes: Please bring a calculator and a memory stick.

B28  Problem Solving  
Prof Derek Holton  
Workshop  
Years: 7 to 10  
A problem (a different one in each of the two sessions) will be suggested and we’ll work as a group to solve it and then generalise and extend it. The aims of the sessions will be to see how mathematicians do mathematics; to provide at least one activity that students of many years and ability levels can tackle; to see how to foster creativity in mathematics; and to indicate sources of similar problems for use in class.

B29  CAS in the Middle Years with ClassPad  
Kevin McMenamin – The Peninsula School  
Workshop  
Years: 7 to 10  
The session will begin with a brief review of the more commonly used features of the ClassPad. The majority of time will be spent exploring the applications that can be used to enhance the teaching and learning of concepts in these middle years of schooling. Focus will be given to the built in areas of statistics, algebra, graphs and geometry and to the add-in application of Algy2.  
Notes: If possible please bring your ClassPad along for the session.

B30  Pearson Mathematics for the Australian Curriculum  
Dirk Strasser - Pearson  
Lecture  
Years: 7 to 10  
Worried about how you are going to implement the new Australian Mathematics Curriculum? Apprehensive about how much time and effort will it take? Pearson has made its mission to make the transition as easy (and joyful)
as possible for teachers. Find out about the world-class features and components of Pearson Mathematics. (Commercial Presentation)

**Not repeated**

**B31 Students Use a Video Presentation to Help Their Maths Skills – Our Experiences**

*Kathleen Ireland – Bendigo Senior Secondary College*

*Geoff Simmonds – Bendigo Senior Secondary College*

**Lecture**

Students were given an open-ended assignment to prepare a video explaining a mathematical concept of their choice. The task catered for many different learning styles and can be applicable to all age groups. “To teach it, is to learn it”. Did it work? Come along and hear how we organised it, see some examples, and how we assessed it.

**Repeated as A29**

**B32 Casio ClassPad 101**

*Elena Zema - Prince Alfred College*

**Workshop**

Learn the basic introductory skills to operate the Casio ClassPad. Free and useful resources will be available, that will convert you from beginner into a fluent ClassPadder in no time! This workshop is for first time users or if you just need to freshen up those skills.

**Notes: Bring your ClassPad or use a loan machine.**

**Repeated as C32**

**B33 Mathematics on the Farm**

*Dr Heather McMaster - Macquarie University*

**Workshop**

In this workshop you will see and hear some of the ways in which maths is used on farms. You will then be working with others to help a farmer solve a problem or two.

**Notes: Please bring a scientific calculator.**

**Repeated as G31**

**B34 Strategies for Numeracy Coaching**

*Karen Perkins - Bendigo Senior Secondary College*

*Ken Stewart - Catholic College Bendigo*

**Lecture**

The role of Numeracy coach is now being embedded into the staffing structure of many schools. This session will provide you with a toolkit of strategies for Numeracy Coaching, from the perspective of a Mathematics KLA leader and an Assistant Principal. Both have acted as coaches in their schools. This is a hands-on session, where participants will be guided through a coaching model, whilst observing classes in action. You will be provided with a framework and step by step approach in order to gain an understanding of how to be effective in this role.

**Repeated as C33**

**B35 Making the Most of Mathletics in the Secondary School Setting**

*Jason d’Offay - 3P Learning*

**Computer Workshop**

This workshop focuses on how to best use Mathletics to meet student needs and improve results in the Secondary classroom. We will be discussing different models of effective use of Mathletics and there will be an opportunity for participants to share their own ideas on how the resource can best be used. We will be revisiting some of the functions in the ‘Teacher Centre’ and how they can be utilised to maintain student engagement and help students to achieve better results. We will also be discussing some different modes of differentiation. (Commercial Presentation)

**Repeated as F33**

**B36 Reworking Working Mathematically**

*Diane Farrell - John Monash Science School*

*Luke Bohni - John Monash Science School*

*Ewan Campbell - John Monash Science School*

**Workshop**

A new school and a new opportunity to engage students in Mathematics at John Monash Science School. The aim was (is) to renew the focus on mathematical thinking and to use the Working Mathematically standard as an overarching principle to our pedagogy. In addition, JMSS is an open plan, technology-rich environment where classes are timetabled together to encourage team teaching. We will discuss our planning, our triumphs and, most importantly, our failures.

**Repeated as A36**
B37  ClassPad Tips and Tricks
  
  Charlie Watson - The Tuition Centre

Workshop  Years: 9 to 12
This workshop is a hands-on session for teachers to explore some of the not so obvious features of the Casio ClassPad that are useful for them and their students. We will be jumping between Main, eActivities, Spreadsheets, Geometry and most other applications. Participants are assumed to have a reasonable working knowledge of ClassPad to keep up with the hands-on activities, but if you don’t, just come along, sit back and let the ideas wash over you. Bring your own ClassPad where possible and you can load copies of the activities onto it. There will also be ClassPad’s to borrow.

Notes: Charlie has presented similar sessions for over 10 years at MAWA State Conferences and Conventions and has created over 130 ClassPad help sheets and videos on the popular ClassPad Help Series site at www.classpad.com.au.

Repeated as A39

B38  An Ocean of Opportunity: Exposing Students to Real Applications of Mathematics
  
  Dr Giles Thomas - Australian Maritime College, University of Tasmania

Lecture  Years: 10 to 12
An interactive session; applying the mathematics which students are currently learning in Years 10, 11 and 12 to real-life engineering applications, with examples of:

◊ integration, as used in ship hydrostatics, plus an engineering approach to checking the answer;
◊ superposition of sine/cosine functions to create irregular waves;
◊ differential equations, as used in the time-domain simulation of racing yacht performance; and
◊ scaling techniques for relating ship models to the full scale vessel.

A look at how we can get students excited about learning mathematics by demonstrating its use in the industrial world and also open their eyes to the possibilities of a career using these skills.

Notes: Please bring graphics calculator, pen or pencil & ruler.

Repeated as F40

B39  TI-Nspire with General Mathematics
  
  John Llewelyn - Bendigo Senior Secondary College
  Stuart Payne - Bendigo Senior Secondary College

Workshop  Years: 11 to 11
A practical workshop to assist teachers who might be considering a similar venture. Step by step assistance in using TI-Nspire to solve problems. Topics to be considered may include linear graphs, algebra, statistics, coordinate geometry, and vectors. There will be discussion of how calculators were used in this context.

Notes: Please bring your own TI-Nspire. Calculators MAY be supplied by TI for this session.

Repeated as A42

B40  Virtual Learning Network - Mathematical Methods Online
  
  Kyle Staggard - Bendigo Senior Secondary College
  Leah Whiffin - Bendigo Senior Secondary College

Computer Workshop  Years: 11 to 12
One class of Mathematical Methods CAS Unit 3 & 4 has successfully completed this course entirely online in 2010, through the Virtual Learning Network established at Bendigo Senior Secondary College. The details of this exciting project, including the structure and organisation, the methods used to develop materials and the results of formal evaluations of the project will be discussed during the workshop. Participants will have the opportunity to explore the learning materials available to students through the Virtual Learning Network site.

Repeated as A43

B41  Mathematical Methods CAS Examination 2, 2011 and Beyond
  
  Allason McNamara - Mount Scopus Memorial College

Lecture  Years: 11 to 12
Allason is the Chief Assessor for Mathematical Methods CAS Examination 2. Common errors that have been made on previous examination papers with a view towards the 2011 examinations will be discussed.

Notes: Bring previous year’s examination papers.

Not repeated

B42  Putting Autograph to Work (Advanced Students)
  
  Douglas Butler - iCT Training Centre, Oundle (UK)

Workshop  Years: 11 to 12
With so many software resources available, what makes Autograph special? Douglas will illustrate lesson plans for the advanced pupils, showing some of the pedagogically rich aspects of Autograph. The mix of Statistics, 2D and 3D in the same environment can offer new ways to look at vectors, transformations, lines, planes, areas and
volumes as well as dynamic data. Recent developments have included linked windows and a fresh look at complex number using a dynamic Argand diagram. A ‘walk-about’ graphics tablet and Autograph’s new “Save to Web” feature will be demonstrated. WebLink: www.tsm-resources.com (Commercial Presentation)

Notes: Delegates can bring laptops - software will be provided.

Repeated as G41

B43 MM CAS with TI-Nspire CAS
Bozenna Graham - Wesley College
Lecture

The presenter will demonstrate several activities which were successfully used in Year 11 and 12 classrooms to teach mathematical concepts with the aid of CAS technology. Introductory worksheet, explorations, investigations and assessment tasks designed specifically for the MM CAS course will be presented and discussed. The TI-Nspire CAS calculator will be used.

Not repeated

B44 Exploring the Potential of the TI-Nspire in Statistics
Prof Peter Jones - Swinburne University of Technology
Lecture

The TI-Nspire with the latest version of its operating system (OS2) comes with very much enhanced statistical capabilities. This session will give participants a general overview of the enhanced statistical capabilities of TI-Nspire with the aim of assessing their potential in conducting statistical investigations.

Not repeated

B45 Pyramid Puzzle
Douglas Williams - Black Douglas Professional Education Services
Workshop

“I don’t have time for hands-on problem solving in Years 11 and 12.” Wrong! When the challenge is like Pyramid Puzzle, which begins as a 3D spatial problem but involves extensive algebra, the history of mathematics, the concept of proof, mathematical induction and an introduction to calculus concepts, you don’t have time NOT to include it. This workshop will challenge you to:

◊ reconsider the use of materials in the senior school,
◊ examine the relevance of a Working Mathematically curriculum at this level,
◊ ask whether such material could be accessible to non-tertiary oriented students in Years 9-12.

Not repeated

SESSION C: 2:00pm - 3:00pm Thursday 2nd December

CK1 National Curriculum Mapping
Nadia Walker – Educational Consultant
Keynote

This presentation will take a close look at the new Australian Curriculum for Primary teachers of mathematics. We’ll focus on the similarities and differences between the ACARA content descriptors and achievement standards and the Victorian Essential Learning Standards. We’ll unpack the curriculum design, new language and year level structure and consider how these changes might impact on high quality teaching and learning in mathematics in Victoria.

Nadia Walker is an educational consultant dedicated to high quality professional learning, with a genuine enthusiasm for innovative teaching and learning, particularly in mathematics. Nadia has experience working with the Victorian Department of Education and Early Childhood Development (DEECD). She has lead curriculum reform projects in the area of Mathematics, and been responsible for providing innovative curriculum advice and professional learning for teachers, coaches and leaders. Most recently she developed and implemented strategies, workshops and online support materials relating to the Mathematics Developmental Continuum, the Mathematics Online Interview and Scaffolding Numeracy in the Middle Years. Nadia is also a trained peer coach, working with individuals and teams to achieve excellence in their mathematics programs. Prior to this work, Nadia was a primary classroom teacher, Middle Years Coordinator and Team Leader.

C2 Working Mathematically with Infants
Douglas Williams - Black Douglas Professional Education Services
Workshop

Derived from Calculating Changes, enriched by the Task Centre and Maths300 and integrated with Maths With Attitude this new resource supports K-2 teachers to build their curriculum around the concept that all students can learn to work like a mathematician in best practice classrooms. The workshop will introduce you to the kit through
activity, expose its simple and flexible framework, which includes a week by week planner, and highlight teaching craft features such as threading and investigations which captivate students. As one teacher wrote: “Kids love the Poly Plugs and are enjoying the other activities from the WMI program.”

*Not repeated*

**C3**  **A Worksheet Free P-3 Maths Classroom**  
*Robyn Greenwood - Laurimar Primary School*

Workshop  
Years: P to 3

It is important to build the foundations of maths learning in the junior school grades. Having a dynamic, ‘hands-on’ maths classroom is an important step. Let’s throw away the worksheets and get down to real life maths learning.  

*Repeated as B3*

**C4**  **Teaching Place Value and Instant Recall of Number Facts**  
*Greg Butler - Camp Hill Primary School  
Fiona Van Heuman - Camp Hill Primary School*

Workshop  
Years: P to 6

The teaching of Place Value and Instant Recall of Number Facts provides students with a base for understanding how our number system works and important skills for problem solving. This session uses games, problem solving activities and asking good questions to teach these concepts and skills.  

*Repeated as D3*

**C5**  **Open-Ended Activities and Their Use in Formative and Summative Assessment**  
*Kathryn Palmer - Western Metropolitan Region  
Caroline Mazurkiewicz - Western Metropolitan Region*

Workshop  
Years: P to 8

Open-ended activities enable students to demonstrate their thinking, use a variety of strategies, display processes and strategies in a number of ways and apply their skills to different situations. As an assessment tool they are invaluable. Students can be easily placed on a continuum of learning which enables teachers to clearly focus on the needs of each student. Differentiation is then a far simpler task. This workshop will allow participants to complete some open ended tasks (both primary and secondary), establish appropriate rubrics to assess students and develop ideas around differentiation resulting from the tasks.  

*Repeated as D5*

**C6**  **Using Whole School Data for Powerful Learning**  
*Helen Edmonds - Concord School  
Kathryn Patford - Northern Metropolitan Region  
Catherine Blewett - Carlton North Primary School*

Workshop  
Years: P to 10

This presentation will examine the effective use of a range of data available in every school (Maths Online, VCAA OnDemand Testing, Scaffolding Numeracy in the Middle Years, Fractions and Decimals Online, Naplan data) to inform best practice. Teachers will be given an opportunity to analyse data and will be provided with a series of Ultranet compatible templates to use in multiple settings.  

*Repeated as G6*

**C7**  **D.I.Y. e-Resources on Excel**  
*Peter Clerks - St Paul’s Anglican Grammar School  
Catherine Clerks - St Paul’s Anglican Grammar School*

Computer Workshop  
Years: P to 12

Excel is an extremely useful program for creating randomised worksheets, games, teaching tools and revision tasks. In this session we will work through the creation of a “madminute” worksheet which generates 50 random times table questions. We will show you how to make an answer sheet to go with this and how, with the press of a button, limitless number of different sheets may be generated. We will then look at some games that may be generated, and how you can then use your knowledge and creativity to make your own electronic resources.  

*Repeated as E8*

**C8**  **Mathletics for Pro’s: Exploring the Advanced Features of Mathletics**  
*Julie Thompson - 3P Learning*

Computer Workshop  
Years: P to 12

This session is for key school based Mathletics Leaders who are already using Results Manager and setting tasks. We will be focusing on sharing good practice for teaching and assessment using Mathletics. The needs of the group may also include creating tailored courses, ability grouping and looking at new Mathletics additions. (Commercial Presentation)  

*Repeated as G10*
Developing a Whole School Approach to Mental Computation

Dr Paul Swan - Edith Cowan University

Workshop

Years: 1 to 6

Many mental strategies to assist children to develop computational fluency have been documented. In this session an overall approach to developing mental computation will be presented. Links will be made to the Australian Curriculum and tasks and activities that will help promote students’ mental computation ability.

C10 Teaching or Practice - The Basic Facts

Michelle Wetherall - Team Solutions - University of Auckland
Vanitha Govini - Team Solutions - University of Auckland

Workshop

Years: 1 to 6

Do we teach the basic facts or continually practice them? This session will look at how we might teach them so that students will be able to use them. We will focus on ways to teach them that make sense and use resources you already have.

C11 Making Maths Lessons Marvellous

Gabrielle West - Curriculum, Teaching and Phases of Learning (CTPoL)

Workshop

Years: 1 to 8

Make your mathematics lessons marvellous for both the teacher and the students, by using a variety of inexpensive, everyday objects like circular tablecloths, tea towels, quilt covers, skateboards, paddle pop sticks, elastic, coloured paper and card, clothes line and pegs, and the 3 D’s (dice, dominoes and a deck of cards) that will engage the learner and produce results! The Mathematics strands of Number, Algebra, Measurement, Space, Chance and Data are covered in this active session which includes ways to open-up ‘closed’ activities and make connections to other curriculum areas. A resource CD is provided.

C12 Maths The Ugandan Way

Sue Neale

Workshop

Years: 2 to 10

During 2009, Sue spent four weeks travelling and volunteering in Uganda. It was such a wonderful experience that she is returning with her family in 2011. In Uganda, there are many ways maths is utilised; through games, daily life and in the classroom. This workshop will introduce you to some activities you can incorporate into your Maths repertoire.

C13 Fun with Foam

Donna Ludvigsen - Grampians Region DEECD
Darren Beer - Ararat Primary School

Workshop

Years: 3 to 7

Donna Ludvigsen and Darren Beer have trialled practical, innovative ways to encourage students to become engaged using concrete materials in the Grade 5/6 classroom. Using a range of commercially available foam shapes, the students explored level 4 fractions and ratios. This workshop explains a series of lessons as the students elaborate, design, make and evaluate their own concrete materials and it also gives participants a chance to have a go at the activities.

C14 Pre-Algebra and Logical Thinking

Richard Korbosky - MAWA

Workshop

Years: 3 to 8

This session explores strategies required for understanding logical thinking, algebraic thinking and how to solve problems using matchsticks, grid paper and two centimetre blocks. Focus is on the manipulation of maths materials, collecting data, making tables, interpreting results and making generalisations. These skills are needed before students are introduced to formal algebra. They assist in problem solving situations and develop students’ ability to improve their reasoning. Aspects within this session reflect the Number and Algebra strand of the Australian Curriculum.

C15 Differentiating Our Teaching

Dr Ian Lowe - The Mathematical Association of Victoria

Lecture

Years: 3 to 10

Ian will engage participants in a discussion about how differentiation can be achieved within a typical mixed ability
classroom. The method requires balancing open-ended mixed-ability investigations and targeted teaching to needs, and is feasible at all levels.

Repeated as G17

C16 Provoking Mathematical Conversations, and How You Might Amplify Mathematical Ideas with ICT
Matt Skoss – Centralian Senior College
Tony Richards – IT Made Simple

Workshop

Participants will be challenged with a range of interesting sorting and matching tasks that provoke understanding of the structure of mathematical concepts, including: percentages, fractions and decimals; and data representations such as box plots, pie charts and histograms. During this session, photos, movie clips and audio clips will be collected, and made into a digital artefact for participants to download at a later time. Strategies for integrating ICT strategically into lessons will be modelled.

Not repeated

C17 Integrating Maths - Biodiversity
Natasha Ziebell - Global Education Project

Workshop

2010 has been declared the International Year of Biodiversity. We will explore a range of opportunities for applying mathematical skills whilst focusing on biodiversity. The activities presented in this workshop can be used to develop student understanding about concepts related to our environment, sustainability and endangered flora and fauna. This session is targeted at level 4, but may be adapted for other levels. Participants will be provided with a range of free resources that are available for immediate use in your classroom.

Not repeated

C18 Working Mathematically – Problem Solving
Bronwyn Quint - Museum Victoria
Daniel Avano - Museum Victoria

Workshop

In this session participants will work through a series of hands-on problems (real-life situations) to test out their problem solving skills. This will be followed by a discussion about practical ways of going about solving problems. Participants will then prepare their own individual problem solving checklist. It’s a great way to introduce problem solving in Primary or Lower Secondary schools.

Repeated as D18

C19 Problem Solving – A Grade Six Primary School Experience
Ian Bull - St Kevin’s College

Lecture

Problem solving in the mathematics classroom can present students with the opportunity of using different thinking processes as well as being lots of fun. It can be used to teach students a range of skills that are difficult to show in ordinary mathematics lessons. The problem solving program that has been run at St Kevin’s College, as well as involving all students in the class, has been able to challenge all students and extend the high achieving students. Details of the program will be presented. (Commercial Presentation)

Repeated as B20

C20 Extending Your Resources
Iren Dyka - St Paul’s Anglican Grammar School
Andy Dyka - St Paul’s Anglican Grammar School

Workshop

As Maths teachers we are always seeking to provide activities that motivate our students to learn. This session illustrates how a simple idea can be extended to create a low cost, professional looking board game which can be utilised for many different topics in Mathematics. Participants will be involved in the thought processes, use of software (Microsoft Excel and Word) and material requirements needed to create a game which is appropriate for their classes. We will look at the entire process from the first idea to the physical completion of the game.

Repeated as H18

C21 Transforming Space
Assoc/Prof Marj Home - Australian Catholic University

Workshop

Space is an often neglected area of the curriculum. This workshop will focus particularly on activities which develop an understanding of transformations in Space and include reflections, rotations, translations and dilations as well as tessellations. A range of activities that are fun and often creative and artistic are included. Fun - with a focus on key mathematical ideas.

Repeated as D19
C22  Game-Based Learning  
Adrian Camm - McGuire College  
Workshop  
Years: 5 to 9  
With many schools now implementing 1:1 laptop initiatives the power of video-gaming technologies as an innovative and effective alternative to traditional teaching approaches needs to be recognised. This interactive, hands-on session will allow you to discover first-hand the power and cognitive benefits of game-based learning. You will leave with ideas and resources that are ready to be used to engage students in your own classroom.  
Repeated as D20

C23  An Effective Numeracy Program for the Middle Years  
Yvonne Reilly - Sunshine College  
Jodie Parsons - Sunshine College  
Elizabeth Bortolot - Sunshine College  
Lecture  
Years: 5 to 9  
An holistic approach to improving student numeracy through the implementation of an effective maths program for all middle years students, incorporating problem solving; improving mathematical literacy; information and communication technology and the scaffolding of numeracy concepts in a fully differentiated classroom.  
Repeated as E19

C24  Essential Excel  
Sue Inness - Techxellent Training Solutions  
Workshop  
Years: 5 to 9  
It's often assumed that teachers have a level of competence with Excel. For teachers who have moved up into teaching later year levels or have missed out on vital PD this isn't always so. Excel is an amazing tool for seeing patterns in numbers, speeding up calculations and creating customized graphs, etc. This program is not a replacement for understanding mathematical operations but is a fantastic extension and is extremely valuable for students who find math's challenging. This workshop will take participants through some of the basics of using Excel with formatting, formulas and creating graphs. Bring your own laptop computer or use my laptops.  
Not repeated

C25  To Blog or Not to Blog?  
Jeff Trevaskis - Mooroopna Secondary College  
Lecture  
Years: 5 to 0  
Blogging is powerful. This presentation will show how your Mathematics teaching will benefit from setting up your own blog and looking at other blogs as part of your professional reading. A number of different uses for class blogs will be explored. You will come away with plenty of ideas and resources.  
Repeated as B24

C26  Design of Mathematical Investigation Task in Problem Solving Context  
Dr Tin Lam Toh - National Institute of Education, Nanyang Technological University, Singapore  
Lecture  
Years: 6 to 9  
This workshop will bring the participants through the processes involved in designing tasks for mathematical investigation tasks, within the problem solving framework curriculum, through a wide range of examples from the mathematics syllabus. Topics will range from the elementary school algebra to high school geometry.  
Repeated as A26

C27  Quiz - It Maths! The Ultimate Classroom Battle!  
Peter Curry - Quiz-it  
Workshop  
Years: 7 to 9  
Quiz-It Maths combines year level appropriate subject matter with pop culture to produce an entertaining and educational trivia competition. Designed for Years 7 and 8, the quiz is an excellent way to gauge students' knowledge before a new area is explored, or to revise content that has already been taught. Quiz-it maths includes DVD games, such as, The Triangulator, Maths Genie, Prime Time Panda's Problem and many more. Professionally trained, energetic Quiz Meisters will come to your school to present the quiz in the location of your choice. Questions are presented along with upbeat music to create an exciting environment that will feel like a TV quiz show has arrived at your campus. (Commercial Presentation)  
Notes: Please bring a pen and be ready for some fun!  
Repeated as G24
C28 Whole Class Activities for Years 7-10  
Theresa Pagon - Strathmore Secondary College  
Elvira Palmerella - Strathmore Secondary College  
Workshop  
Years: 7 to 10  
The use of hands-on and practical activities that allow students to thoughtfully engage with the concepts that they are learning help improve student understanding. The most difficult things about running these activities are locating an activity that fits exactly with the concept that you are covering and putting together the required materials. This presentation will provide you with and take you through some whole class activities that you can use in your classes immediately using simple materials that you already have lying around. (Commercial Presentation)  
Repeated as G25

C29 Big Ideas, Mathematics and the Australian Curriculum  
Jennifer Nolan - Oxford University Press  
Melanie Koetsveld - Oxford University Press  
Lecture  
Years: 7 to 10  
Oxford University Press is currently developing teaching and learning resources for the Australian Curriculum for Mathematics based on Big Ideas pedagogy. Join members of our mathematics team, as we unpack these resources. The workshop will provide an overview of the Oxford Big Ideas Mathematics series including Student Books, Progress Books and the broad range of teacher support resources. All workshop participants will also receive an Oxford Big Ideas Mathematics sample pack. (Commercial Presentation)  
Repeated as G26

C30 Cooperative Learning in the Maths Classroom  
Mark O'Brien - Online Teachers Resource Network  
Workshop  
Years: 7 to 10  
“Research on how people learn has suggested that learning is a social process and that cooperative learning activities are essential if students are able to construct their own knowledge”: Alice F Artzt & Claire M Newman  
“Independence and collaboration: Learning experiences should encourage students to learn both independently and from and with others.”: Curriculum Framework Learning & Teaching Principles. As mathematics teachers we are not traditionally highly skilled in allowing students to work cooperatively. However, there is a lot of information available on both the how and why of cooperative learning and this workshop aims to impart some of that information and also some of the presenters experience from the classroom. The presenter Mark O’Brien is the manager of the Online Teachers Resource Network as well as working part time as Professional Officer for MAWA and in teacher development for DET WA. (Commercial Presentation)  
Not repeated

C31 Exposing the Mathemagicians  
Peter Fox - Elisabeth Murdoch College  
Workshop  
Years: 7 to 11  
In the late 1990’s a masked magician Val Valentino exposed the tricks of some of the world’s most famous magicians. In this workshop, participants will unveil some mathemagical tricks and see how they can be used to switch on students’ interest in mathematics. Underpinning the magic is some relatively simple algebra applicable to Years 7-11.  
Not repeated

C32 Casio ClassPad 101  
Elena Zema - Prince Alfred College  
Workshop  
Years: 7 to 12  
Learn the basic introductory skills to operate the Casio ClassPad. Free and useful resources will be available, that will convert you from beginner into a fluent ClassPadder in no time! This workshop is for first time users or if you just need to freshen up those skills.  
Notes: Bring your ClassPad or use a loan machine.  
Repeated as B32

C33 Strategies for Numeracy Coaching  
Karen Perkins - Bendigo Senior Secondary College  
Ken Stewart - Catholic College Bendigo  
Lecture  
Years: 7 to 12  
The role of Numeracy coach is now being embedded into the staffing structure of many schools. This session will provide you with a toolkit of strategies for Numeracy Coaching, from the perspective of a Mathematics KLA leader and an Assistant Principal. Both have acted as coaches in their schools. This is a hands-on session, where participants will be guided through a coaching model, whilst observing classes in action. You will be provided with a framework and step by step approach in order to gain an understanding of how to be effective in this role.  
Repeated as B34
C34 Making ICT Work for Mathematics - A UK Perspective
   Douglas Butler - iCT Training Centre, Oundle (UK)

Lecture
ICT investment in UK schools has been spectacular, but mathematics classroom use has been patchy. Douglas, an avid collector of resources that can add a sparkle to any lesson, will describe two initiatives that he has been closely involved with, both trying to turn the tide:
(1) a Train the Trainers project, which is training 75 trainers in the first year covering 7 core ICT skills for mathematics.
(2) a new online magazine for ATM.
Douglas will describe the technical challenges, including getting dynamic software to run seamlessly on the web, and persuading teachers to share using Jing videos.

Repeated as H30

C35 Getting Your 'Horses' to Drink at the Trough of Maths
   Richard Andrew - Teacher Training Australia

Workshop
Ever feel that you get rather slim returns for all the effort you give to teaching? That if students were truly on-side, much more would be achieved? Student engagement is critical to learning. But do we give it enough attention? This session is a tiny snippet of the 8hr online course “Motivating, Engaging and Managing Students Effectively”, a course which is revolutionising the practise of many teachers. Come along and be inspired. Because of the reference to online PD this session carries the classification “Commercial presentation”. However, please note there will be no pressure to sign up to anything!

Repeated as G34

C36 Interactive Geometry on the ClassPad
   Ian Thomson - Ormiston College

Workshop
This session will focus on the use of the ClassPad to make geometric constructions and animations. A booklet of activities will be provided. BYO ClassPad or borrow one at the session. References will be made to a research project I have conducted into the use of this technology but the session will be predominantly hands-on.

Repeated as G35

C37 Effective Teaching About the Mathematics of Chance Gambling
   Donald Smith - Victoria University

Lecture
There has been a general public educational failure to explain the certainty of loss over long-term play on commercial chance games. Carefully designed teaching for a middle secondary level can show why players won’t win over the long run. Relevant, simple explanation and hands-on demonstration of the key concepts affecting gambling outcomes seems new to many. Key misunderstandings in pure chance gambling, such as on electronic gaming machines, include a lack of understanding:
   ◊ of independence and randomness,
   ◊ of the basic loss making structure of the game, and
   ◊ of the tendency of variable short-run chance results to congregate around the average mathematically expected result in the longer run. That is, that the variability of outcomes reduces in a larger sample.
With interaction from the group this session will show how these understandings can be developed from a simple game.

Not repeated

C38 Enriched with CAS and More!
   Lisa Saffin - Caulfield Grammar School
   Rennae Miszkurka - Caulfield Grammar School

Workshop
Engaging and motivating students to develop deeper mathematical thinking and understanding is not a new goal for teachers. Allowing students the opportunity to become active participants in their learning, developing their own connections through, not only discussion, but also new and varied experiences, enables this type of learning to occur naturally within a classroom setting. Both CAS and non-CAS activities are introduced to enrich the students’ mathematical experiences.

Notes: Please bring your CAS calculator to the session
Repeated as F36
C39  Vapour Trails and Neon Signs  
Brett Stephenson - Guilford Young College
Workshop  
Years: 9 to 12
This workshop will look at how we can model vapour trails from aerobatic planes and the lighting of neon signs by incorporating some relevant trigonometry, calculus and parametric equations. There will be a strong emphasis on using graphics calculators to assist with the modelled graphs and equations and the interpretation of them. The session will be presented with a Casio ClassPad.
Notes: Bring a Graphics Calculator if you have one. There will be Casio ClassPads provided at this session if you do not have one.
Repeated as D36

C40  Keys to Success  
Karen Boyce - Irymple Secondary College
Workshop  
Years: 9 to 12
Do your students like gifts? Who doesn't? At the beginning of each topic I make each student a simple and inexpensive aid to support them throughout the topic. I call them Helping Hands or Keys to Success. Students are appreciative and look forward to receiving their little surprise.
Repeated as E36

C41  Using TI-Nspire for Polynomial Graphing Activity  
Shane Dempsey - Baimbridge College  
Rhiannon Smith - Baimbridge College
Workshop  
Years: 10 to 11
This hands-on workshop is for those with either limited use or totally new to the TI-Nspire calculator. An activity entitled The Great Race will be worked through. The task uses the graphing features of the calculator to solve a modelling problem incorporating polynomial graphs.
Notes: Bring your TI-Nspire calculator or borrow one at the session.
Repeated as H35

C42  Eliminating Learning Obstacles in Mathematics  
Fred Ghanem
Lecture  
Years: 11 to 12
Whether our teaching methods, conventionally adopted in schools, are good, not good at all or somewhat good, there is always room for improvement. This presentation tackles the learning difficulties our VCE students face and proposes an approach to minimise their impact. This approach draws, among other things, on the latest discoveries in brain science while considering our students socio-economic environment. (Commercial Presentation)
Repeated as E41

C43  When X - X neq 0: An Introduction to the Algebra of Random Variables  
John Kermond - Haileybury College Senior School (Keysborough Campus)
Lecture  
Years: 11 to 12
Techniques for finding the pdf of (1) the sum, difference, product and quotient of two independent and continuous random variables, and (2) a function of a single continuous random variable are given and illustrated using simple examples. The theory might provide interesting ideas for the VCE Mathematical Methods Unit 4 Analysis Task 2 (Probability).
Repeated as G40

C44  StudyON for VCE Mathematics – Want to Improve Your Students’ Exam Results?  
Shirly Griffith - John Wiley & Sons Australia  
Shirley Sharples - John Wiley & Sons Australia  
Lyn Elms - John Wiley & Sons Australia
Lecture  
Years: 11 to 12
StudyON is the next generation study, revision and exam practice tool from Jacaranda that recognises the online world students live in. In this workshop, Jacaranda will introduce you to StudyON for VCE Specialist Mathematics Units 3 & 4, VCE Mathematical Methods CAS Units 3 & 4 and VCE Further Mathematics Units 3 & 4. Incorporating a myriad learning tools - videos, animations, actual past VCAA exam questions, a results tracker, concept screens and interactive study activities - StudyON opens the door to a stimulating and flexible learning environment that encourages all students to study how they want, when they want. Participants will also be shown the new Teacher View. (Commercial Presentation)
Notes: Participants will each receive a free 12-month access code to a StudyON of their choice.
Repeated as E42
C45  Using Examiner’s Reports to Enhance Student Revision
   Alan Brookes - Highvale Secondary College
   Paul Negri - Highvale Secondary College

Computer Workshop  Years: 12 to 12
Effective use of revision time for Year 12 students is essential. This session will look at how examiner’s reports can help students to focus on the concepts and skills that really count. (Commercial Presentation)

Repeated as E43

SESSION C-D: 2:00pm - 4:15pm Thursday 2nd December (Extended Session)

CD-1  Practical Ideas for Differentiating Instruction: Number and Algebra Concepts P-4
   Anita Chin - Anita Chin Mathematics Consultancy

Workshop  Years: P to 4
Students learn at different rates and in different ways. This hands-on workshop will provide practical ideas for differentiating both the content and the concrete materials being used to meet the full range of students' needs and abilities in a mixed ability classroom. Teaching sequences for connecting number concepts with algebraic thinking will be modelled. Open-ended questions and visual aids will be used to develop students’ use of mathematical language and their ability to think, reason and work mathematically. Fun and engaging teaching and learning activities will provide ideas for posing challenging problems using basic content. Black line masters will be provided.

Not repeated

CD-2  MathsOnline.com.au - It’s Far Better Than You Think!
   Paul Waddell - MathsOnline.com.au

Lecture  Years: 1 to 12
Advanced - With over 1.15 million Australian users by July 2010, projected to break the 1.5 million barrier easily by years end, most Teachers, Students and Parent users THINK they are getting the most out of this fabulous program. Find out how the curriculum can be covered more thoroughly and in a shorter time-frame, how 10-20 minutes can be saved from every one of your lessons, how formative assessment becomes an exercise that is thorough, meaningful and easier to administer, how schools won’t need text-books any more and Parents can save $100’s on Maths tutors every year. MathsOnline... your 24/7 Maths Buddy. While we enjoy the sponsorship of McDonald’s for our High School program, which is likely to cover 2011 as well, we have not at this point secured sponsorship for our Primary Program which was launched in August and will be in full swing by December. While we are in talks with a few suitable sponsors at the moment, we can’t guarantee that this part of our program will not be a commercial enterprise, in that people MAY have to pay for it. We will be entirely upfront with where we are at as things progress on all of this.

Notes: Sessions are available for MathsOnline novices (1 hour) and for those who are experienced (2 hours) on each day of the conference. Laptops with wireless internet connectivity are encouraged, but not necessary at any session.

Repeated as FG-3

CD-3  Flip, Slide and Away: Creative Ways to Approach Geometry in the National Curriculum
   Ass Prof Susie Groves - Deakin University

Lecture  Years: 2 to 8
This workshop will illustrate ways in which the recurring themes of symmetry and transformations in the National Curriculum can be addressed through an exploration of nature, art and design. Mathematical underpinnings of these topics will be used to help teachers develop a coherent framework to use in their planning. ICT as well as physical tools such as the MATHOMAT will be used to create and analyse patterns.

Not repeated

CD-4  How to Teach Decimals Better
   Michael O’Reilly - Mill Park Secondary College
   Norrian Rundle - Epping Secondary College

Workshop  Years: 4 to 8
This double session presentation is based on the MY Numeracy Leader Decimals Module, plus much more. We will look at an easy to implement diagnostic test to identify common decimals misconceptions held by students. These misconceptions will be explored, as will a range of teaching strategies to address them. The concrete teaching aid, Linear Arithmetic Blocks (LABs), will be demonstrated. These can be constructed by participants and used to teach place value and decimals. Participants will receive copies of files and handouts, as well as detailed instructions for constructing the LABs.

Notes: Participants should bring along a USB Memory Stick.

Not repeated
CD-5  Ideas for Algebra: Making Bridges Between Number, Number Operations and Structure
       Dr Max Stephens - University of Melbourne
Lecture	 Years: 5 to 9
Important ideas for algebraic thinking grow out of earlier work on number and number operations. Some students entering Secondary school already understand algebraic principles, others still think of number solely as computation. This session will present some rich areas for teachers to foster algebraic thinking by linking back to earlier work on number and number operations. It will provide a range of tasks that upper Primary and Secondary teachers can use to assess and support students’ capacity to think algebraically.

Not repeated

CD-6  The Role of Cultural Competence in Improving Mathematics Outcomes for Indigenous Students
       Dr Jeannette Kavanagh - Healesville High School as part of Make it Count
       Prof Peter Sullivan - Monash University
       Susan McNabb - Healesville High School as part of Make it Count
Workshop	 Years: 5 to 10
This presentation details Victoria’s role in the AAMT’s national four year project Make It Count: numeracy, mathematics and Indigenous students. Make It Count sees cultural competence as an essential professional competence when teaching Aboriginal and Torres-Strait Islander students. The current approach clearly hasn’t delivered the numeracy and maths outcomes we want for those students. A cluster of four Primary schools and one High School in Healesville is working with Professors Peter Sullivan, Henry Atkinson and Zane Marhea and Ms Bernadette Atkinson of Monash University to develop cultural competence and maths pedagogies more congruent with our students’ learning needs.

Not repeated

CD-7  TI-Nspire for Computers at the Singapore School of Science and Technology
       Dr Sarah Davis - National Institute of Education, Singapore
Computer Workshop	 Years: 6 to 8
In this hands-on session participants will be exposed to a series of lessons that integrate Google Applications, NetLogo, and TI-Nspire for aggregating and analyzing student generated data. As an example, in one lesson students analyzed traffic patterns around the school. Students in multiple classes took pictures of traffic at different times of day and locations, the location of the pictures were input into a shared Google Map, the number of cars, trucks, buses and motorcycles were counted and entered into a shared Google Spreadsheet, once data from all classes was input, it was copied over to TI-Nspire for statistical analysis.

Repeated as FG-5

CD-8  Mathplot - Using Computers in a Maths Classroom with Year 7-10 Students’
       Robert Rook - Mathplot
Computer Workshop	 Years: 7 to 10
This session will run through using technology (Mathplot) in the classroom for Years 7-10. Among the topics covered are graphing, consumer maths, fractions, geometry, measurement, mensuration, percentage, plotting, spatial relations, statistics, tessellations, trigonometry, probability to name a few. The maths tutor, topic revision/test program, homework book generator and crossword/wordsearch generators, TI-15 calculator and interactive software will be explained. All attendees will receive a free TI-15 calculator and a free registered copy of the latest CD to take home and load on their home computers. (Commercial Presentation)

Not repeated

CD-9  Using ClassPad Manager and the Geometry Application
       Alastair Lupton - Prince Alfred College
Workshop	 Years: 7 to 12
In this workshop, Geometry will be on “the big screen” - using the ClassPad Manager on a computer, enabling full screen graphs and computations to be part of your teaching. The focus of the session will be on learning how to use the Geometry application to: a) make and save constructions, b) measure elements of constructions, c) include elements that move automatically (animations) and d) investigation simple problems that involve the infinite in a dynamic way, bring the very abstract a little closer to the concrete. All this is aimed at sharing some skills that may add to your teaching repertoire.

Notes: If at all possible, bring a laptop running the Class Manager. If not possible, bring your handheld (or borrow one) and do it on the “small screen”.

Not repeated
CD-10  Check Out This ARS! (Audience Response System)  
David Tynan - Aquinas College

Workshop  
Years: 9 to 12

Audience Response Systems (ARS) such as i-Clicker have been used at tertiary institutions for about 5 years (eg see Wikipedia). In this workshop we look at ways that this technology might be useful in assisting student learning in the Secondary mathematical classroom. Participants will make use of the wireless TI-Nspire Navigator ARS, although the focus will be on general applications of such systems.

Repeated as AB-4

SESSION D: 3:15pm - 4:15pm Thursday 2nd December

DK1  Designing Online Mathematics Education: From Tools to Rich Integrated Digital Learning Environments

Peter Boon - Freudenthal Institute

Keynote  
Years: 5 to 12

This presentation is about designing internet-based software for mathematics education, especially the use of the internet as a mature and versatile environment for learning mathematics. We will start by looking at features and principles that make digital learning activities stand out in comparison with paper materials. We will consider not just feedback issues, but will also focus on design principles for activities that offer students help in discovering and visualizing mathematical concepts. In addition we will focus on requirements and design issues that make a digital environment a true working environment for studying and teaching longer learning trajectories or even curricula.

Peter Boon is a staff member of the Freudenthal (The Netherlands). He is a senior java programming specialist, mathematics curriculum developer and researcher. He combines his technology expertise and his mathematics teacher background to develop rich digital learning content. A wide range of applets have been designed for algebra and geometry, varying from interactive basic-skill exercises to tools for visualizing, exploring and discovering mathematical concepts. Gradually the emphasis of his work shifted from designing learning activities to designing internet-based learning environments that combine and integrate these tools and use them as interactive components in longer learning trajectories.

D2  Consumer and Financial Literacy and the Australian Curriculum: Mathematics – What and How?  
Will Morony - AAMT

Lecture  
Years: K to 12

During 2010 the AAMT has been providing advice to the Australian Securities and Investment Commission (ASIC) on aspects of Consumer and Financial Literacy in relation to the forthcoming Australian Curriculum: Mathematics and its implementation. This session will report the findings and directions emerging from the project:

◊ the treatment of Consumer and Financial Literacy in the documents;
◊ resources and professional learning that will support teachers of mathematics in relation to Consumer and Financial Literacy; and
◊ promoting the importance of the area to teachers of mathematics.

Repeated as G3

D3  Teaching Place Value and Instant Recall of Number Facts  
Greg Butler - Camp Hill Primary School  
Fiona Van Heuman - Camp Hill Primary School

Workshop  
Years: P to 6

The teaching of Place Value and Instant Recall of Number Facts provides students with a base for understanding how our number system works and important skills for problem solving. This session uses games, problem solving activities and asking good questions to teach these concepts and skills.

Repeated as C4

D4  Tomorrow’s Mathematics Classroom Here Today  
Gerard Tuffield - Origo Education

Lecture  
Years: P to 6

Learn how ORIGO Stepping Stones lets you:

◊ navigate in a teaching sequence to differentiate instruction,
◊ prepare for teaching by viewing professional learning videos,
◊ effortlessly access appropriate teaching aids for lessons,
◊ access perfect learning objects without searching to find them,
◊ consolidate mental strategies through games,
◊ utilize story big books with related IWB tools to develop mathematical concepts,
◊ project illustrations, diagrams and student pages with/without answers,
◊ select from a range of assessment techniques including multiple choice, short answer and performance tasks,
◊ define mathematical terms,
◊ know your program remains current despite curriculum changes.

(Commercial Presentation)

Repeated as H3

D5 Open-Ended Activities and Their Use in Formative and Summative Assessment
Kathryn Palmer - Western Metropolitan Region
Caroline Mazurkiewicz - Western Metropolitan Region

Workshop Years: P to 8
Open-ended activities enable students to demonstrate their thinking, use a variety of strategies, display processes and strategies in a number of ways and apply their skills to different situations. As an assessment tool they are invaluable. Students can be easily placed on a continuum of learning which enables teachers to clearly focus on the needs of each student. Differentiation is then a far simpler task. This workshop will allow participants to complete some open ended tasks (both primary and secondary), establish appropriate rubrics to assess students and develop ideas around differentiation resulting from the tasks.

Repeated as C5

D6 Improving Mathematics Learning in the Kingston Network: Our Story
Nadia Walker – Educational Consultant
Paul Arnts - DEECD
Bryony Lowe - DEECD

Lecture Years: P to 10
The Kingston Network in Southern Metropolitan Region is made up of 27 schools, including Primary, Secondary and Special schools. This session is chapter 1 of our story: an ongoing project towards making improvements to mathematics teaching and learning network wide. Through taking an assessment focus, our goal is to have a Whole Network Assessment Schedule as well as a common and agreed understanding about what high quality mathematics teaching is all about. This is how we have started the journey …

Repeated as H5

D7 Qwizdom Mathematics
Andy Penman - Qwizdom Mathematics

Workshop Years: P to 12
Over the past 6 or so years in different parts of the world including the UK and the US, large clusters of Mathematics clusters have been investigating the concept of using numerical response system handsets within classes. The ability to gather sets of data and analysis this with the class has had dramatic impacts on areas of Mathematics such as mental maths and data collection. This session looks to place you at the heart of a lesson like this and see how you respond! (Commercial Presentation)

Repeated as H8

D8 Achieving More with Mathletics
Kate Williamson - 3P Learning

Computer Workshop Years: P to 12
This workshop will focus how Mathletics can be implemented in your school. It is best attended by experienced users of Mathletics looking for that ‘something extra’ from the resource. (Commercial Presentation)

Repeated as H9

D9 Marvellous Mentals
Peggy Ashton - La Trobe University
Jenny Vincent - Birmingham Primary School

Workshop Years: 2 to 6
In this workshop we will explore a range of mental computation strategies that challenge students to think flexibly about numbers. We will also look at how students can apply these strategies and understandings to operations that involve larger numbers, well before they need to learn the standard algorithm.

Repeated as E11

D10 Puzzle Olympics
Douglas Williams - Black Douglas Professional Education Services

Workshop Years: 2 to 10
It might take a little work, but the benefits are worth it - and it doesn’t have to be Olympics time for the idea to be used. Why not an annual Mathlete Championship or Family Night Challenge or aligning the event with National
Maths Day or National Literacy & Numeracy Week or ...? These sessions usually run for about 2 hours, but the workshop will be a mini-version. Explore:
◊ what’s involved,
◊ how it feels,
◊ potential for bringing staff, kids and parents together for a bit of maths fun,
◊ web support that’s done a lot of the organisation already.

Not repeated

D11 Mathematical Games: Just Trivial Pursuits?
Derek Hurrell - University of Notre Dame Australia
Dr Paul Swan - Edith Cowan University

Workshop Years: 3 to 6
In this hands-on session we will look at a few games and focus on the mathematics that underpins them. We’ll review some criteria that can be used to select the games we use and to make sure that they are more than just ‘rainy day’ time fillers. We’ll also explore how we can link the mathematics we find to the emerging Australian Curriculum.

Not repeated

D12 Fun with Foam
Donna Ludvigsen - Grampians Region DEECD
Darren Beer - Ararat Primary School

Workshop Years: 3 to 7
Donna Ludvigsen and Darren Beer have trialled practical, innovative ways to encourage students to become engaged using concrete materials in the Grade 5/6 classroom. Using a range of commercially available foam shapes, the students explored level 4 fractions and ratios. This workshop explains a series of lessons as the students elaborate, design, make and evaluate their own concrete materials and it also gives participants a chance to have a go at the activities.

Repeated as C13

D13 Using Number Puzzles to Promote Fluency in the Australian Curriculum: Mathematics
Peter Stowasser - ORIGO Education

Workshop Years: 3 to 7
Number puzzles are an enjoyable and motivational teaching tool. They can promote the application of mental computation strategies and thinking strategies in a format that encourages students to repeat the activity without teacher direction. Puzzles can also address the proficiency strands as identified in the draft Australian Curriculum as students employ strategies to respond to familiar and unfamiliar situations. This session will introduce several number puzzles and games that can be implemented within the classroom.

Not repeated

D14 Building Understanding in Middle Years – Number
Dr Ian Lowe - The Mathematical Association of Victoria

Workshop Years: 3 to 10
Participants will engage in some key activities and understandings that can both motivate students and enhance their understandings. Areas covered will be fractions, decimals, percentage, ratio and proportion.

Repeated as H15

D15 Probability - On a Scale From 0 to 1
Mark Mudge - Australian Mathematical Sciences Institute (AMSI)

Workshop Years: 4 to 8
This workshop explores a sequence of engaging learning and teaching activities suitable for Years 4-8. These activities will assist in developing the language of and a deep understanding of probability. Connections between VELS and the Australian Curriculum will be made as we explore the probability number line and ways to represent probability.

Not repeated

D16 Online Resources For Maths
Hang Nguyen - Koonung Secondary College

Workshop Years: 4 to 9
Teachers will be shown a wide range of free resources and programs that are available online; including maths activities to printable worksheets to downloading a video from YouTube.

Notes: Please bring your USB stick.

Repeated as H16
D17  Can we Improve the Connections Between Number and Measurement for Students?
Vivienne Thompson - University of Otago College of Education

Workshop  Years: 5 to 7
In New Zealand we are finding that teachers and students are not making the links between number and other strands. Numeracy can be taught in a block of time and then strand taught in a block time. In this workshop I intend to explore how to make those links for students, so they can make connections between the classroom and real life contexts.

Not repeated

D18  Working Mathematically – Problem Solving
Bronwyn Quint - Museum Victoria
Daniel Avano - Museum Victoria

Workshop  Years: 5 to 7
In this session participants will work through a series of hands-on problems (real-life situations) to test out their problem solving skills. This will be followed by a discussion about practical ways of going about solving problems. Participants will then prepare their own individual problem solving checklist. It's a great way to introduce problem solving in Primary or Lower Secondary schools.

Repeated as C18

D19  Transforming Space
Assoc/Prof Marj Horne - Australian Catholic University

Workshop  Years: 5 to 8
Space is an often neglected area of the curriculum. This workshop will focus particularly on activities which develop an understanding of transformations in Space and include reflections, rotations, translations and dilations as well as tessellations. A range of activities that are fun and often creative and artistic are included. Fun - with a focus on key mathematical ideas.

Repeated as C21

D20  Game-Based Learning
Adrian Camm - McGuire College

Computer Workshop  Years: 5 to 9
With many schools now implementing 1:1 laptop initiatives the power of video-gaming technologies as an innovative and effective alternative to traditional teaching approaches needs to be recognised. This interactive, hands-on session will allow you to discover first-hand the power and cognitive benefits of game-based learning. You will leave with ideas and resources that are ready to be used to engage students in your own classroom.

Repeated as C22

D21  Collaboration and the Development of Students’ Reasoning Skills
Colin Shnier - Wesley College

Workshop  Years: 5 to 10
There is a clear link between sustained use of collaborative activities and the development of students’ ability to reason, justify and explain. Through a mix of theory and practice, participants in this session will explore this link. A range of exemplary collaborative activities will be used. Participants will leave with a set of activities and links that help promote student discussion and collaboration in their classrooms, and increased understanding of how to use them to develop students’ mathematical reasoning skills.

Repeated as H22

D22  Concrete Materials in Middle School: Using Pattern Blocks with the Mathomat Template
John Lawton - Objective Learning Materials
Michael O'Connor - St Francis Xavier College

Workshop  Years: 7 to 7
The foundation concept of angle is often difficult for students to grasp. What is often missing, when students are asked to use a protractor, is that they have trouble measuring something when they are not sure what it is. Participants will learn how to use pattern blocks to build an intuitive foundation for the use of the MATHOMAT protractor for angle measurement. This is one of a series of lessons from the resource book “Geometry Labs” by Henri Picciotto which is being adapted to suit the Mathomat template and the Australian curriculum by Objective Learning Materials. (Commercial Presentation)

Repeated as E26
Hungry Brains - Starter Activities and Extension Problems for Introducing Mathematics Topic to Students
Jo Bradley - Mentone Grammar
Paul Nugent - Carrum Downs Secondary College

Workshop

Hungry Brains are activities to get students to start thinking and exploring new mathematical topics using the e5 model. Students share and reflect their work through latest technologies. These activities are quick and easy to use. They are designed to assist new teachers and teachers who are time poor. They are incorporated in the new Jacaranda Maths Quests for the Australian Curriculum. We will also explore how to best utilise these texts through e-learning. (Commercial Presentation)

Repeated as G23

Online Collaborative Mathematics Projects
Pauline Holland - John Wiley & Sons Australia
Lyn Elms - John Wiley & Sons Australia

Lecture

The new Maths Quest 7 and 8 series comes with exciting new digital resources, including online collaborative projects. ProjectsPLUS provides all the tools you need to engage and challenge students in the completion of an ICT-based project. Students are placed in a real-life scenario that requires them to complete a specific task. ProjectsPLUS provides opportunities for students to demonstrate creativity, thinking skills and to experience first-hand the power of collaboration and teamwork. Each ProjectsPLUS project begins with an engaging video introduction. Teacher notes, assessment rubrics and syllabus outcomes are provided to help teachers. (Commercial Presentation)

Not repeated

Dancing Robots and Catching Like Terms - Interactive Lessons Designed to Engage
Vebica Evans - Pearson

Computer Workshop

Don’t have time to hunt online for learning interactives? Have new laptops but don’t know how to best utilize them? Sick of seeing interactives that are ‘edu-tainment’ rather than good pedagogy? After scouring the globe for great digital learning, Pearson have found it. If you’re sick of the hype, and want to see something that is engaging, caters for all learners, is truly interactive and involves deep learning, then come and see our surprise...Not to be missed-the best interactive learning available. (Commercial Presentation)

Repeated as F27

Discover, Explore, Connect
Jennifer Nolan - Oxford University Press
Melanie Koetsveld - Oxford University Press

Lecture

Using a combination of recent education research and classroom experience as starting points Oxford University Press has developed a mathematics program based on the Big Ideas principles. Such an approach enables students to see how it fits together, really understand key concepts, transfer understandings to new topics and build fluency along the way. Join Jennifer and Melanie as they share their learning journey and work with you to develop a Big Ideas mathematics approach for your school. (Commercial Presentation)

Repeated as H26

Using Applications to Support Deep Understanding and Engagement
Mark O’Brien - Online Teachers Resource Network

Lecture

Students engagement increases when the concepts and skills they have learned can be applied to real world problems. Once engaged, these contextual applications of mathematics require the students to think mathematically and help develop deeper understandings and make connections between concepts. This session will present a number of applications written by the presenter. It will also cover how and when to use these applications, how to develop your own, and highlight resources that contain many other applications. The presenter Mark O’Brien is the manager of the Online Teachers Resource Network as well as working part time as Professional Officer for MAWA and in teacher development for DET WA. The material in this presentation supports the proficiency strands of the Australian Curriculum. (Commercial Presentation)

Repeated as G27

Animation, Iteration and Tool Making Using Geometer Sketch Pad
Lloyd Stagg - Red Cliffs Secondary College

Computer Workshop

Experienced users of GSP (or similar dynamic geometry software such as Cabri or GeoGebra) will enjoy the opportunity to create tools for often used polygons and use these to explore tessellations, nets, logos and geometric
design. Animation to represent simple models such as the solar system will also be explored. Finally the power of iteration to automate processes will also be used to construct a fraction modeller.

Repeated as F28

D29 Mathematical Amnesia
Peter Fox - Elisabeth Murdoch College

Workshop
Have you ever wondered what your students were doing last lesson when you were teaching them? How can we assess student learning within minutes of starting a lesson? This session looks at brain based learning strategies including formative and summative assessment tools; interesting and challenging questions that assess thinking will be included. Caveat: the content may be provocative, so be prepared.

Not repeated

D30 Teach Locus with Geometer’s Sketchpad
Karim Noura - Bayside P-12 College

Computer Workshop
Teach Locus with problem solving approach at early middle school years. We will explore some Locus problems using Geometer’s Sketchpad, e.g. circle, Line bisector, parallel line, area of triangle, Parabola and ellipse.

Notes: Please bring your Laptop.

Repeated as H28

D31 For the Novice ClassPad User
Anthony Harradine - Baker Centre, Prince Alfred College

Workshop
If you have never used a ClassPad but need to know how, or are just starting out, then come along and learn how to use a ClassPad, in the ClassPad way. You will leave confident enough to continue exploring new areas of the ClassPad alone. You will also leave with professionally produced documents that will support your next steps.

Notes: BYO ClassPad or use the loan machines that will be available.

Repeated as H29

D32 Assessment and the Australian Curriculum
Richard Andrew - Teacher Training Australia

Workshop
With the new Australian Mathematics Curriculum come the four proficiency strands Fluency, Problem Solving, Understand and Reasoning. These proficiency strands will influence not only the way mathematics is to be taught but the style of assessment that will be required. What does it all mean? Attendance at this session will give you some excellent assessment ideas and resources which relate to the new curriculum. You will also be introduced to some Online PD which is pedagogically aligned with the Australian Curriculum. Hence this is classified “Commercial Presentation”. (Please note there will be no pressure to purchase anything!)

Repeated as H31

D33 Assessing Angles with the Australian Rules Set-shot
Terry Lockwood - Marian College Myrtleford
Therese Holland - Marian College Myrtleford

Workshop
Assessing the available angle on the field when undertaking an Australian Rules Football set-shot is easy and accurate and can change the head-space of the kicker. This hands-on activity can involve statistics, trigonometry, geometry and a touch of psychology. It is possible to equip any footballer with the ability to apply a solid mathematical approach to the ‘set-shot’. This presentation includes a range of practical modelling activities and a video depicting footballers being trained to think mathematically and is designed for the general public to understand.

Repeated as G36

D34 CAS: Good for the Goose, Good for the Gander? The Relevance of CAS for Years 9 and 10
Sue Garner – Ballarat Grammar

Lecture
In 2010, Victorian Maths classrooms have accepted and used CAS for teaching, learning tasks, and assessments in the VCE. It is now time to look more intensely at how CAS can be used in Years 9 and 10, not just as preparation for the VCE, but more importantly as a powerful teaching tool for students at all levels of understanding.

Not repeated
D35  Rich Activities with TI-Nspire CAS  
Frank Moya - Southern Metropolitan Region - DEECD

Workshop  
Years: 9 to 12
This hands-on workshop will introduce participants to a range of learning tasks that have been used successfully with students in Years 10 and 11. Various functionalities of the calculator will be utilised, including CAS, dynamic geometry and spreadsheets. It will be assumed that participants have some familiarity with basic navigation of the TI-Nspire CAS calculator.

Repeated as E35

D36  Vapour Trails and Neon Signs  
Brett Stephenson - Guilford Young College

Workshop  
Years: 9 to 12
This workshop will look at how we can model vapour trails from aerobatic planes and the lighting of neon signs by incorporating some relevant trigonometry, calculus and parametric equations. There will be a strong emphasis on using graphics calculators to assist with the modelled graphs and equations and the interpretation of them. The session will be presented with a Casio ClassPad.

Notes: Bring a Graphics Calculator if you have one. There will be Casio ClassPads provided at this session if you do not have one.

Repeated as C39

D37  Accessing Real Data for Use in the Classroom  
Jean Arnott - Australian Bureau of Statistics

Computer Workshop  
Years: 10 to 11
The Australian Bureau of Statistics website, in particular the CensusAtSchool (C@S) Project, is a rich source of free data for use in classrooms. In this practical session, teachers of Years 10 and 11 will have the opportunity to familiarise themselves with the ABS website including time series data sets, and Consumer Price Index pages. Teachers will also navigate through the CensusAtSchool web pages to view relevant new resources and support material. As part of working through the new ‘QuickC@S’ mini lessons they will use some basic properties of Excel 2007 such as fitting a trend line to a scatter plot.

Repeated as F39

D38  Playing with Wolfram Alpha  
David Leigh-Lancaster - Victorian Curriculum & Assessment Authority (VCAA)

Computer Workshop  
Years: 10 to 12
Wolfram Alpha is a web based ‘computational knowledge engine’ which incorporates Mathematica’s computational capabilities and more. It’s a bit like a mathematically/scientifically oriented Google. Inquiries can be made informally as long as they are basically well formed. In this workshop we will play with aspects of Wolfram Alpha for various applications.

Repeated as G38

D39  Pre-Apprenticeship and Pre-Accreditation Maths for Trades and TAFE  
Andrew Spencer - St Michaels College

Lecture  
Years: 10 to 12
This Maths course has been developed to assist those students seeking a career in a Trade &/or other areas such as a TAFE course to improve their maths. Pre-apprenticeship Maths utilises the maths and terminology used in trades such as Electrical, Plumbing, Carpentry, Automotive, Hairdressing and Hospitality to enhance the motivation of students to learn maths. Similarly, the pre-accreditation maths provides students with maths and terminology used in Beauty, Childcare, Business Administration and Retail to motivate students to engage with maths.

Not repeated

D40  Using the ClassPad to Enhance Your Year 11 Methods Teaching  
Kevin McMenamin – The Peninsula School

Workshop  
Years: 11 to 12
This session will introduce some lesson activities that can be used directly in your Year 11 Methods classes. They will also be a springboard for you to create your own applications.

Notes: If possible please bring your ClassPad along for the session.

Repeated as F41

D41  CAS-enabled activities for the VCE Further Mathematics classroom  
Roger Wander – University of Melbourne

Lecture  
Years: 11 to 12
Earlier this year a series of CAS-enabled activities, written specifically for students and teachers of VCE Further Mathematics, was created for users of TI-Nspire CAS. The author/presenter will introduce participants to the series
as a whole, and specifically to selected lessons and/or tasks which can deepen student understanding of the underlying mathematical principles. Participants will be provided with worksheets from selected tasks and a CD-ROM with all 20 activities and supporting technology files (also available on the TI website). TI-Nspire CAS handheld calculators with selected technology files will also be available for use in the workshop.

Notes: Participants need not bring special materials or technology; these will be provided at the workshop (see summary). A working knowledge of TI-Nspire CAS V2.0 will be useful but not essential.

Repeated as H37

D42 Countering Further Mathematical Errors?
Andrew Stewart - Presbyterian Ladies’ College

Lecture

For a number of years, the Further Mathematics Chief Assessor’s reports have commented on similar types of errors being committed every year by students in their solutions to Examination 2. Can these errors be overcome by better examination preparation, clearer examination questions or are we up against a student cultural attitude towards mathematics? Join a long time Further Mathematics teacher in discussing these issues.

Repeated as G43

SESSION E: 9:00am - 10:00am Friday 3rd December

EK1 Ways of Using the “Proficiencies” from the Australian Curriculum to Enrich Mathematics Teaching and Assessment
Prof Peter Sullivan - Monash University

Keynote

The Australian mathematics curriculum describes understanding, fluency, problem solving and reasoning as key actions applying to all of our teaching. This presentation connects specific examples with the content descriptions, and uses those examples to illustrate how the proficiencies or mathematical actions apply to particular mathematics tasks, and how we can include such actions in school based assessments. The presentation will also highlights some of the other challenges associated with the new curriculum including greater emphasis on teacher decision making and the increased role of the learning of statistics.

Peter Sullivan is Professor of Science, Mathematics and Technology Education at Monash University. He is the author of the shape paper for the new national mathematics curriculum, editor of the Journal of Mathematics Teacher Education, and the president of the Australian Association of Mathematics Teachers. His main research interests are in classroom processes for teaching mathematics.

E2 Grids and Strips. Where are They Leading?
Jan Cavanagh - Making Sense of Maths

Workshop

Oral language teamed with active group work make a great basis for investigating mathematical concepts in early childhood classrooms. Use of a strip mat and other grids enhance physical involvement, problem solving, and engagement.

Repeated as A3

E3 Developing Flexible Thinkers in the Early Childhood Classroom
Richard Korbosky – MAWA

Workshop

The ability to think flexibly in Mathematics is an important skill to acquire from the start of the mathematics journey. There are a range of strategies to assist this development and many of these strategies can be driven by stories which focus on mathematics. Young students should be given the opportunity to manipulate materials, draw the mathematics and communicate their knowledge. There are many graphic organisers which can assist and organise their thinking. There are also an emerging new set of brain compatible strategies which assist in developing flexibility. This session explores a variety of strategies and will arm the participant to return to the classroom and try them out.

Not repeated

E4 Creating Language Based Activities for Mathematics
Joanne Riddell - CEO Sydney Southern Region
Jackie Vella - CEO Sydney Southern Region
Michelle Coupland - CEO Sydney Southern Region

Workshop

This workshop will give teachers ideas on how to create talking and listening games to use in Mathematics. The games will encourage students development in the language of Mathematics.

Repeated as A4
E5  Mathematics (Numeracy) Interview and the National Mathematics Curriculum – Clear Connections!
   Pam Hammond - ROPA Consultancy
Workshop  Years: P to 6
Many Primary teachers have been using the Mathematics (Numeracy) Interview for some years. Is it still relevant? Will it remain relevant in the future? Are there connections to the National Mathematics Curriculum? How does it link to VELS? This workshop will show these links and how the interview is still relevant and the student outcomes can assist planning. We will also explore activities to move students forward. It is advisable that participants know, and preferably have used, this Interview.

Repeated as F7

   Dr Leicha Bragg - Deakin University
   Megan Skinner - Wooranna Park Primary School
   Yianna Pullen - Wooranna Park Primary School
Lecture  Years: P to 8
Geocaching is a global treasure hunt that uses a handheld GPS to locate ‘buried’ treasure in your own neighbourhood or anywhere around the world. At Wooranna Park Primary School, Dandenong North we have developed a geocaching program that has promoted deep mathematical understanding of location and development of spatial awareness and spatial visualization with the Preps through to Grade 6. Come along and hear about the amazing success we have had in engaging not only the most reluctant learners at the school but the parents and local community. With over 1 million geocaches hidden around the world, the mathematical possibilities are endless.

Repeated as F9

E7  MAV Maths Talent Quest - Working Mathematically - Investigation Projects
   June Penney - Darley Primary School
   Kelly Gallivan - St Kevin’s College (Toorak)
Workshop  Years: P to 10
In its 29th year, the Maths Talent Quest(MTQ) is an important component of the MAV’s student activities program. Categories include all Primary and Secondary year levels and investigations may be performed by individuals, groups or classes. Do you want to find out more about the MTQ and how it links to Curriculum? Do you have a personal interest or do you want to find out how to run it in your school? Come join us! You will be also be provided with the opportunity to ask questions, discuss ideas and read past exemplary investigation projects.

Repeated as F10

E8  D.I.Y. e-Resources on Excel
   Peter Clerks - St Paul’s Anglican Grammar School
   Catherine Clerks - St Paul’s Anglican Grammar School
Computer Workshop  Years: P to 12
Excel is an extremely useful program for creating randomised worksheets, games, teaching tools and revision tasks. In this session we will work through the creation of a “madminute” worksheet which generates 50 random times table questions. We will show you how to make an answer sheet to go with this and how, with the press of a button, limitless number of different sheets may be generated. We will then look at some games that may be generated, and how you can then use your knowledge and creativity to make your own electronic resources.

Repeated as C7

E9  Mathletics for Beginners
   Claire O’Connor - 3P Learning
Computer Workshop  Years: P to 12
This session is for schools that are thinking of purchasing or are brand new to Mathletics. We will be discussing some of the benefits of using Mathletics in your Maths/Numeracy classes as well as looking at the basic features in the ‘Student Centre’ and ‘Teacher Centre’. (Commercial Presentation)

Repeated as A11

E10  MathsOnline.com.au - It's Far Better Than You Think!
   Paul Waddell - MathsOnline.com.au
Lecture  Years: 1 to 12
Novice - With over 1.15 million Australian users by July 2010, projected to break the 1.5 million barrier easily by years end, most Teachers, Students and Parent users THINK they are getting the most out of this fabulous program. Find out how the curriculum can be covered more thoroughly and in a shorter time-frame, how 10-20 minutes can be saved from every one of your lessons, how formative assessment becomes an exercise that is thorough, meaningful and easier to administer, how schools won’t need text-books anymore and Parents can save $Hundred’s on Maths tutors every year. MathsOnline... your 24/7 Maths Buddy. While we enjoy the sponsorship of
McDonald’s for our High School program, which is likely to cover 2011 as well, we have not at this point secured sponsorship for our Primary Program which was launched in August and will be in full swing by December. While we are in talks with a few suitable sponsors at the moment, we can’t guarantee that this part of our program will not be a commercial enterprise, in that people MAY have to pay for it. We will be entirely upfront with where we are at as things progress on all of this.

Notes: Sessions are available for MathsOnline novices (1 hour) and for those who are experienced (2 hours) on each day of the conference. Laptops with wireless internet connectivity are encouraged, but not necessary at any session.

Repeated as B13

E11  Marvellous Mentals
Peggy Ashton - La Trobe University
Jenny Vincent - Birmingham Primary School
Workshop  Years: 2 to 6
In this workshop we will explore a range of mental computation strategies that challenge students to think flexibly about numbers. We will also look at how students can apply these strategies and understandings to operations that involve larger numbers, well before they need to learn the standard algorithm.

Repeated as D9

E12  Performance of Low Attainers from Singapore in Numeracy
Mdm Suo Hui Chang - National Institute of Education
Dr Phong Lee Koay - National Institute of Education
Dr Berinderjeet Kaur - National Institute of Education
Workshop  Years: 3 to 5
This presentation examines the performance of low attainers in numeracy from Singapore. The 486 4th grade pupils, from nine government schools, are identified as low attainers by their mathematics teachers. Their responses and performance in a series of three numeracy benchmark tests are discussed under the categories; mathematical skills, number concepts and representations of word problems. Attempts are also made to examine some factors such as pupils’ language ability and memory capacity, that may account for the performance of these pupils. The findings illuminate some of the problems low attainers face and respective implications for teaching.

Not repeated

E13  Statistics in the Australian Curriculum
Peter Stowasser - ORIGO Education
Workshop  Years: 3 to 7
The draft of the Australian Curriculum places an increased emphasis on statistics and probability. Many teachers have not had the opportunity to develop sound knowledge of the principles and concepts underlying the practices that they’re now called upon to teach. This session will explore what it means to think statistically and provide several practical classroom ideas that address the expectations of the draft Australian Curriculum.

Not repeated

E14  Using NAPLAN and Other Resources to Improve Outcomes for Students
Dr Ian Lowe - The Mathematical Association of Victoria
Workshop  Years: 3 to 10
By comparing school and state performances on each item on a NAPLAN test, schools can identify areas of under-performance. Ian will explain this process and make specific suggestions about how the Mathematics Developmental Continuum and other resources can assist a school to target areas of need.

Repeate as A16

E15  Star Numbers and Other Investigations with Poly Plug
Douglas Williams - Black Douglas Professional Education Services
Workshop  Years: 3 to 12
We begin by meeting the young mathematician who introduced me to Star Numbers, which is a visual algebra problem intriguing to students from about Year 4 on to University. Not a bad starting point for a session that will initiate a smorgasbord of problems designed to engage students at all levels in working like a mathematician. You don’t need Poly Plug to investigate all the problems in the session, or the web resource that supports it, but it sure makes things easier. So you might attend this session for the problems, or to consider the value of this popular equipment, or both.

Not repeated
E16  Using Games and Tasks as a Basis for Meaningful Maths Learning  
Laurel Smith - Western Metro Region  
Barbara Slusarczyk - Western Metro Region

Workshop  
Years: 4 to 9

Numeracy Coaches and Teachers in the Wyndham Network have been working with Peter Sullivan on developing Mathematical tasks to support the differentiation of lessons in their classrooms. These tasks cater for a range of needs and support engagement in the middle years classrooms. This session will provide examples of the lesson structure and a range of tasks and games that have been used to facilitate connections and build mathematical understandings in our classrooms.

Repeated as A21

E17  Sundials and Other Useful Solar Instruments  
Tim Byrne - Croxton Specialist School

Workshop  
Years: 5 to 8

Participants are introduced to the world’s oldest scientific instrument and can make two simple sundials. Participants are given notes with various sundial equations and are shown how to construct a simple equatorial sundial from inexpensive materials. Participants construct simple shadow casting instruments for measuring the sun’s altitude, zenith and azimuth. By way of providing a more meaningful context to time telling, participants learn how to calculate the correct time for noon, the equation of time, as well as make adjustments for latitude and longitude. Includes images of solar instruments from Jaipur, Melbourne and Burke & Wills expedition.

Not repeated

E18  Working Mathematically: Australasian Problem Solving Mathematical Olympiads Workshop  
Dr Anne Prescott – APSMO Inc  
Jon Phegan – APSMO Inc

Workshop  
Years: 5 to 8

This workshop introduces the APSMO Maths Olympiads Program and its benefits through the enhancement of mathematical problem solving abilities. The Olympiads are open to all students in years 5 to 8 and consist of a series of five contests aimed at increasing enjoyment and enthusiasm for mathematics through working mathematically. (APSMO Inc is a non-profit organisation - Commercial Presentation)

Notes: Please bring writing materials - but calculators are not allowed!

Repeated as F16

E19  An Effective Numeracy Program for the Middle Years  
Yvonne Reilly - Sunshine College  
Jodie Parsons - Sunshine College  
Elizabeth Bortolot - Sunshine College

Lecture  
Years: 5 to 9

An holistic approach to improving student numeracy through the implementation of an effective maths program for all middle years students, incorporating problem solving; improving mathematical literacy; information and communication technology and the scaffolding of numeracy concepts in a fully differentiated classroom.

Repeated as C23

E20  Engaging Middle Years Students in Mathematics Using the MATHOMAT  
Ted Marks - Albion North Primary School  
Steve Lewis - Complete Calculations Consultant

Workshop  
Years: 5 to 9

Participants will investigate how using the Mathomat Geometric template and online Mathomat, can effectively close the achievement gap for disengaged students as the Mathomat template provides an effective vehicle through which students can demonstrate their mathematical thinking. We will explore investigations using the Mathomat geometric template. Sample lessons will be workshopped and provided to participants. We will also investigate how the Mathomat Online can be used with Interactive-Whiteboards in the state-of-the-art classrooms. (Commercial Presentation)

Repeated as A23

E21  Using CensusAtSchool to Promote Statistical Literacy in Your Middle Years Classroom  
Mary-Anne Aram - Australian Bureau of Statistics

Computer Workshop  
Years: 5 to 9

CensusAtSchool (C@S) now collects National data from students annually. This data can be used dynamically in the classroom in a variety of ways. In this practical session for middle years, teachers will get the opportunity to familiarise themselves with the Australian Bureau of Statistics Education Services free website focusing on CensusAtSchool including new material. Teachers will generate a random sample from C@S data on the web. As part of working through free online extended and new ‘QuickC@S’ mini lessons they will use some basic properties
of Excel 2007 such as sorting and arranging data and making charts.

Repeated as H21

E22  Geometry – Can We Build It? Yes We Can!
Janine McIntosh - Australian Mathematical Sciences Institute (AMSI)

Lecture

Arithmetic has numbers as its building blocks. In geometry, points, lines, angles and circles are the foundations. Geometry is used to model and construct the world around us. Classifying and studying the properties of geometric objects gives students an opportunity to develop geometric intuition and also to learn how to structure logical arguments and make deductions in a setting which is, for the most part, independent of number. In this session we will take a look at the rich history of geometry and investigate ways to develop ideas with students through classroom activities and applications in the building industry.

Not repeated

E23  Measurement and Technology – Using Data Loggers
Bronwyn Quint - Museum Victoria
Daniel Avano - Museum Victoria

Workshop

Data loggers have been used in science classrooms for some time now, but can they be used in the maths classroom as well? Using data loggers, ‘real’ data can easily be collected by students using sensors. Graphs and tables can be shown to have relevance to ‘real’ events, not just numbers copied out of a book. Using data loggers to collect the data used for analysis, changes in variables can be tracked showing the resulting changes in graph shapes and data trends. Combining collected data with a program such as Excel students can easily produce tables and graphs for analysis.

Repeated as F18

E24  Meaningful Mathematics - Number and Algebra
Sharon London - Cambridge HOTmaths

Workshop

Ready-to-use activities and investigations online at any time you need them. In this workshop you will take part in hands-on activities and investigations from Number and Algebra, designed to fit perfectly into your teaching. Discover new ways to involve and engage your students in meaningful mathematics. *All activities are Australian Curriculum-friendly and can be found on the Cambridge HOTmaths website. (Commercial Presentation)

Repeated as F22

E25  Proportional Thinking; from Fractions to Percentages
Jill Smythe – Team Solutions, University of Auckland

Workshop

Using double number lines as an effective material to encourage students to work with fractions, decimals and percentages in order to become proportional thinkers.

Repeated as H23

E26  Concrete Materials in Middle School: Using Pattern Blocks with the Mathomat Template
John Lawton - Objective Learning Materials
Michael O’Connor - St Francis Xavier College

Workshop

The foundation concept of angle is often difficult for students to grasp. What is often missing, when students are asked to use a protractor, is that they have trouble measuring something when they are not sure what it is. Participants will learn how to use pattern blocks to build an intuitive foundation for the use of the MATHOMAT protractor for angle measurement. This is one of a series of lessons from the resource book “Geometry Labs” by Henri Picciotto which is being adapted to suit the Mathomat template and the Australian curriculum by Objective Learning Materials. (Commercial Presentation)

Repeated as D22

E27  Teaching for Depth: Where Maths Meets the Humanities
Ian Hauser - Ian Hauser Consulting

Lecture

How does our knowledge of literacy strategies used in humanities classes inform our work in mathematics? A Balanced Approach to literacy instruction can be transferred to such an approach in teaching mathematics. Results of a 12 month study conducted with classroom teachers in New York City will be presented, and insights highlighted.

Repeated as H25
**E28** Problem Solving  
_Prof Derek Holton_  
**Workshop**  
Years: 7 to 10  
A problem (a different one in each of the two sessions) will be suggested and we’ll work as a group to solve it and then generalise and extend it. The aims of the sessions will be to see how mathematicians do mathematics; to provide at least one activity that students of many years and ability levels can tackle; to see how to foster creativity in mathematics; and to indicate sources of similar problems for use in class.  
*Repeated as B28*

**E29** Mathematics Students on Trak - Diagnostic Testing From Red to Green  
_Jan Honnens - Christ Church Grammar School_  
**Lecture**  
Years: 7 to 10  
Using the online MathTrak as a diagnostic testing tool for Years 7-10 Mathematic students has proven to be just what we needed at Christ Church Grammar School (Perth) to provide students, parents and teachers with a colourful map of the mathematical learning journey. This session will look at some of our experiences as well as give a brief tour of how to set up courses, teachers, students and classes. The MathTrak version that will be demonstrated is fully aligned with the ICE-EM books, but there is another more general version available that can be used to align the National Curriculum with any textbook series.  
*Not repeated*

**E30** CAS in the Middle Years with ClassPad  
_Kevin McMenamin – The Peninsula School_  
**Workshop**  
Years: 7 to 10  
The session will begin with a brief review of the more commonly used features of the ClassPad. The majority of time will be spent exploring the applications that can be used to enhance the teaching and learning of concepts in these middle years of schooling. Focus will be given to the built in areas of statistics, algebra, graphs and geometry and to the add-in application of Algy2.  
*Notes: If possible please bring your ClassPad along for the session.*  
*Repeated as B29*

**E31** Working Mathematically Performance Tasks  
_Mark O’Brien – Mathematical Association of WA_  
**Lecture**  
Years: 7 to 10  
This series published by MAWA includes five books covering the strands Algebra, Chance and Data, Number, Measurement and Space. The books are suitable for students from around Year 7 to Year 10 levels. Written by classroom teachers to match the outcomes in the Working Mathematically strand of the WA syllabus, each book has a series of 50 student activities designed to develop skills and/or assess performance against those skills. The activities give students information on the problem, planning, solving, results, interpreting, prediction and extension. Teachers are supported with information on assumed knowledge, equipment required, points for consideration, assumptions and extension ideas. This presentation goes over what’s in the books, what the series offers teachers and students and how to make the best use of the resource in your classroom. The presenter Mark O’Brien is the Professional Officer for MAWA as well as working part time for DET WA and managing the Online Teachers’ Resource Network. The material in this presentation supports the Proficiency strands of the Australian Curriculum.  
*(Commercial Presentation)*  
*Not repeated*

**E32** Web 2.0 and Mathematics  
_Marcel van Otterdyk - Strathmore Secondary College_  
**Computer Workshop**  
Years: 7 to 12  
Web 2.0 tools, integrated with freeware such as GeoGebra and Google Sketchup, can be used by teachers to create online learning environments that are flexible, meaningful and engaging for students. Weblogs, wikis and online documents can be used by students to create online portfolios involving communication and collaboration. Within a set of teacher guided experiences, students demonstrate creative thinking and mathematical reasoning to cohere their understanding within a purposeful context. During this session participants will be given an overview of Web 2.0 and a hands-on exploration of some web applications that can be incorporated to produce their own customisable teaching and learning environments.  
*Not repeated*

**E33** Plants and Maths – A Great Combination!  
_Joe Blake – Royal Botanic Gardens_  
**Workshop**  
Years: 7 to 12  
The presenter has developed a number of hands-on activities at the Royal Botanic Gardens, many of them Maths-related. In this session he will cover the following activities:
◊ Making contour lines in the field using simple equipment.
◊ Relating contour lines to irrigation practices.
◊ Using a compass to make a tree canopy map.
◊ Measuring the height of trees using similar triangles.

Joe Blake has been a Maths teacher and Museum Educator since somewhere near the middle of last century.

Repeated as G33

E34 Interesting Activities and New Resources for the Teaching and Learning of Proof
Dr Paul Brown - Carmel School

Lecture
Years: 8 to 12

Proof is the unique selling point that distinguishes mathematics from experimental science. Students can be taken beyond pattern recognition to conjecture and the many varieties of proof. Teachers can combine their teaching of algorithms with proof of why they work. The proposed National Curriculum gives new emphasis to the teaching of proof. This session will provide many teaching ideas and an introduction to the available resources, including teacher Paul Brown’s newly-released book on this subject. (Commercial Presentation)

Repeated as A35

E35 Rich Activities with TI-Nspire CAS
Frank Moya - Southern Metropolitan Region - DEECD

Workshop
Years: 9 to 12

This hands-on workshop will introduce participants to a range of learning tasks that have been used successfully with students in Years 10 and 11. Various functionalities of the calculator will be utilised, including CAS, dynamic geometry and spreadsheets. It will be assumed that participants have some familiarity with basic navigation of the TI-Nspire CAS calculator.

Repeated as C40

E36 Keys to Success
Karen Boyce - Irymple Secondary College

Workshop
Years: 9 to 12

Do your students like gifts? Who doesn’t? At the beginning of each topic I make each student a simple and inexpensive aid to support them throughout the topic. I call them Helping Hands or Keys to Success. Students are appreciative and look forward to receiving their little surprise.

Repeated as F38

E37 ClassPad eActivities
Charlie Watson - The Tuiton Centre

Workshop
Years: 9 to 12

The incredible power and flexibility of eActivities is often overlooked by many ClassPad users. This workshop is a hands-on session for teachers to see what’s possible and then develop their skills in using and creating eActivities to pass on to their students. Participants are assumed to have a reasonable working knowledge of ClassPad to keep up with the hands-on activities, but if you don’t, just come along, sit back and let the ideas fire up your enthusiasm. Bring your own ClassPad where possible to load free copies of example eActivities onto it. There will also be ClassPad’s to borrow.

Notes: Charlie has presented similar sessions for over 10 years at MAWA State Conferences and Conventions and has created over 130 ClassPad help sheets and videos on the popular ClassPad Help Series site at www.classpad.com.au.

Repeated as F38

E38 The New TI-Nspire CAS OS2.0/2.1 and the VCE
Russell Brown – Educational Consultant
Rodney Anderson – Moreton Bay College, QLD

Workshop
Years: 10 to 12

Why upgrade to the latest OS? What is the difference between the Clickpad (grey) and the new Touchpad(black) handhelds? A hands-on session that looks at the many enhancements available to teachers and students with the latest Operating Systems for the TI-Nspire CAS handhelds. Examples from all the VCE courses will be used to cover the new and /or improved functionality. Some new features of the TI-Nspire Computer (Teacher Edition) computer software will also be covered. Teachers can have their handhelds upgraded to either OS2.0 or 2.1 at the TI stand or at this session.

Repeated as H36
E39  Use of Real Life Examples, Data and Characters to Engage Students in the Learning of
Probability, Statistics and Differential Equations
Jasmine Ng Ee War - Hwa Chong Institution

Lecture
Students generally find the syllabus for exams daunting so the best way to get them engaged and interested in Math
and Statistics again is to allow them see the Mathematics in action in the real world using real data, characters or
models. Simple mathematical models involving differential equations linked to Chemistry, Population and Finance
will be shared and how they can used to enhance learning in the topic as well. At the same, some of the students’ lab
work on simple data analysis will also be presented. They are both suitable for the use in classroom and lecture.
Not repeated

E40  Analysing the Birth Month Problem Using TI-Nspire CAS
Amanda Legg - Lilydale High School
Darren Grantham - Lilydale High School

Workshop
The birthday problem is one of the most widely-studied probability problems in senior mathematics classrooms.
However the problem can be difficult to analyse, due to sample size considerations. In this TI-Nspire CAS hands-on
session, we will use simulation and theoretical considerations to study the lesser-known but easier-to-analyse birth
month problem. Some knowledge of the TI-Nspire CAS Lists and Spreadsheet application will be assumed.
Notes: Please bring TI-Nspire CAS calculator.
Repeated as A45

E41  Eliminating Learning Obstacles in Mathematics
Fred Ghanem

Lecture
Whether our teaching methods, conventionally adopted in schools, are good, not good at all or somewhat good,
there is always room for improvement. This presentation tackles the learning difficulties our VCE students face and
proposes an approach to minimise their impact. This approach draws, among other things, on the latest discoveries
in brain science while considering our students socio-economic environment. (Commercial Presentation)
Repeated as C42

E42  StudyON for VCE Mathematics – Want to Improve Your Students’ Exam Results?
Shirly Griffith - John Wiley & Sons Australia
Shirley Sharpley - John Wiley & Sons Australia
Lyn Elms - John Wiley & Sons Australia

Lecture
StudyON is the next generation study, revision and exam practice tool from Jacaranda that recognises the online
world students live in. In this workshop, Jacaranda will introduce you to StudyON for VCE Specialist Mathematics
Units 3 & 4, VCE Mathematical Methods CAS Units 3 & 4 and VCE Further Mathematics Units 3 & 4. Incorporating
a myriad learning tools - videos, animations, actual past VCAA exam questions, a results tracker, concept screens
and interactive study activities - StudyON opens the door to a stimulating and flexible learning environment that
encourages all students to study how they want, when they want. Participants will also be shown the new Teacher
View. (Commercial Presentation)
Notes: Participants will each receive a free 12-month access code to a StudyON of their choice.
Repeated as C44

E43  Using Examiner’s Reports to Enhance Student Revision
Alan Brookes - Highvale Secondary College
Paul Negri - Highvale Secondary College

Computer Workshop
Effective use of revision time for Year 12 students is essential. This session will look at how examiner’s reports can
help students to focus on the concepts and skills that really count. (Commercial Presentation)
Repeated as C45
FK1  Student Thinking and Teacher Reflections Can Inform Australian Mathematics Curriculum Implementation

Gaye Williams - Deakin University

Keynote  Years: P to 8

Gaye presents illustrations from her research (Grades 3-6) that show students making mathematical connections / identifying relationships as they collaborate during problem solving tasks in a teaching approach where they are expected to think together. Gaye’s research also illuminates barriers to learning resulting from students misinterpreting previously learnt work. Teachers in these research schools have reflected on findings and begun to identify changes to learning environments (across multiple school levels) intended to decrease such barriers. Gaye hopes this session will stimulate collaborations that map deep understandings, and identify lesson features that promote them, across other areas of the Australian Mathematics Curriculum.

Dr Gaye Williams, Deakin University researcher, and previous secondary mathematics teacher (in rural, city, government, independent, co-ed, girls, and boys schools) provides Professional Learning (Prep-12). Her PhD (within David Clarke’s Learners’ Perspective Study), enabled visits to various countries to observe mathematics learning (Philippines, USA, Germany, Japan, Sweden, South Africa). Her PhD on “Cognitive and affective qualities of mathematics lessons” attracted the AARE Doctoral Award 2006, and University of Melbourne Chancellor’s Prize 2007. Her ARC Postdoctoral Fellowship to study “The role of optimism in collaborative problem solving in mathematics: Building problem solving capacity” (2009-2012) is hosted by the International Centre for Classroom Research.

FK2  The Senior Secondary Australian Curriculum: Mathematics

Robert Randall - Australian Curriculum, Assessment and Reporting Authority (ACARA)

Keynote  Years: 11 to 12

Robert Randall, General Manager of Curriculum at ACARA, will provide an update on the development of the Australian Curriculum for Mathematics in the senior secondary years. Robert's presentation will outline the curriculum content revision work that has been conducted following the national consultation from May to July 2010. An update on the development of the senior secondary achievement standards will also be provided, along with consultation timelines for 2011, when the curriculum content and achievement standards will be available. Following his presentation, Robert will welcome further discussions and any points of clarification from the floor.

Robert Randall is currently the General Manager, Curriculum, with the Australian Curriculum, Assessment and Reporting Authority (ACARA). He was previously the General Manager of the Interim National Curriculum Board (NCB). Prior to working at both ACARA and NCB, Robert was the Director of Curriculum K-12 with the NSW Department of Education and Training. In this position, Robert was responsible for leading and coordinating the development of curriculum policy and the provision of teacher professional learning and curriculum support materials for NSW public schools for K-12. From 1996 to 2001, Robert was the Director, Curriculum, with the NSW Board of Studies, where was responsible for the management of the Higher School Certificate syllabus review program and a range of K-10 syllabus development projects. Robert began his career as a teacher of mathematics in Perth before holding a range of positions within and beyond schools in Western Australia. These included Head Teacher, (Mathematics), Project Leader (Monitoring Standards in Education), Senior Curriculum Advisor (Curriculum Policy) and Manager (Assessment and Reporting at Department of Education WA), and Principal Consultant with the Interim Curriculum Council of Western Australia.

F3  Calculating Changes Across the School

Douglas Williams - Black Douglas Professional Education Services

Workshop  Years: K to 7

Calculating changes across the school when you stop thinking of something like 8 + 7 as an instruction to calculate and start thinking of it as an opportunity to investigate. The answer then isn't 15, it's the variety of ways we can convince someone the answer is 15. Teachers in the Calculating Changes network have developed simple, but subtle, teaching strategies and a large bank of activities designed to engineer ‘aha’ moments so that number sense is enhanced. This workshop offers an opportunity to experience some of the activities, consider the teaching craft and learn about the web site that supports and shares their work.

Not repeated
F4 Neat Maths Software for Primary Schools  
*Tony Collison - School Software*

**Computer Workshop**

This an opportunity for teachers to review and use the Worksheet Factory range of software. “Maths Resource Studio” allows teachers to create learning resources tailored to the needs of a single child or a whole group. It’s simple and easy to use. The other software titles “Bingo” and “Vocabulary 4” can be customised to create activities that support learning in Maths, simple games and crosswords puzzles can be created to support a variety of learning activities in a classroom. *(Commercial Presentation)*

*Repeated as A5*

F5 Developing a Personal Mathematical Identity. Who? Me?  
*Janine McIntosh - Australian Mathematical Sciences Institute (AMSI)*

**Lecture**

At the risk of sounding like a politician and talking about known unknowns and unknown unknowns, this session delves into what it means to teach our favourite subject. We explore the questions “What do I need to know as a classroom teacher of mathematics?” and “Why do I need to know that?” New materials prepared in 2010 by the Australian Mathematical Sciences Institute have been written to help teachers feel less wobbly mathematically. I’ll share my top-ten list of things to know, including arrays for multiplication and the usefulness of understanding about prime factors. Bring along your own top-ten!  

*Not repeated*

F6 Reshaping Place Value Activities for Differentiation  
*Kelly Utting - Southern Metropolitan Region - OSR*  
*Elizabeth Wilson - Southern Metropolitan Region - OSR*

**Workshop**

Participants will have the opportunity to explore hands-on place value activities, and reshape them to cater for supporting and extending student learning. Ideas will be shared to provide an engaging differentiated curriculum suitable for whole class and small group delivery within the classroom.

*Repeated as A10*

F7 Mathematics (Numeracy) Interview and the National Mathematics Curriculum – Clear Connections!  
*Pam Hammond - ROPA Consultancy*

**Workshop**

Many Primary teachers have been using the Mathematics (Numeracy) Interview for some years. Is it still relevant? Will it remain relevant in the future? Are there connections to the National Mathematics Curriculum? How does it link to VELS? This workshop will show these links and how the interview is still relevant and the student outcomes can assist planning. We will also explore activities to move students forward. It is advisable that participants know, and preferably have used, this Interview.

*Repeated as E5*

F8 Making the Most of Mathletics in the Primary School Setting  
*Andrew Nicholls - 3P Learning*

**Computer Workshop**

This workshop focuses on how to best use Mathletics to meet student needs and improve results in the Primary classroom. We will be discussing different models of effective use of Mathletics and there will be an opportunity for participants to share their own ideas on how the resource can best be used. We will be revisiting some of the functions in the ‘Teacher Centre’ and how they can be utilised to maintain student engagement and help students to achieve better results. We will also be discussing some different modes of differentiation. *(Commercial Presentation)*

*Repeated as B6*

F9 Geocaching: A Worldwide Real-Life Mathematical Treasure Hunt  
*Dr Leicha Bragg - Deakin University*  
*Megan Skinner - Wooranna Park Primary School*  
*Yianna Pullen - Wooranna Park Primary School*

**Lecture**

Geocaching is a global treasure hunt that uses a handheld GPS to locate ‘buried’ treasure in your own neighbourhood or anywhere around the world. At Wooranna Park Primary School, Dandenong North we have developed a geocaching program that has promoted deep mathematical understanding of location and development of spatial awareness and spatial visualization with the Preps through to Grade 6. Come along and hear about the amazing success we have had in engaging not only the most reluctant learners at the school but the parents and local community. With over 1 million geocaches hidden around the world, the mathematical possibilities are endless.
F10  MAV Maths Talent Quest - Working Mathematically - Investigation Projects

June Penney - Darley Primary School
Kelly Gallivan - St Kevin’s College (Toorak)

Workshop  Years: P to 10

In its 29th year, the Maths Talent Quest (MTQ) is an important component of the MAV’s student activities program. Categories include all Primary and Secondary year levels and investigations may be performed by individuals, groups or classes. Do you want to find out more about the MTQ and how it links to Curriculum? Do you have a personal interest or do you want to find out how to run it in your school? Come join us! You will be also be provided with the opportunity to ask questions, discuss ideas and read past exemplary investigation projects.

F11  Bridging the Gap - Moving Children from Counting to Breaking up Numbers

Anne Milburn - TEAM Solutions - University of Auckland
Fiona Fox - TEAM Solutions - University of Auckland

Workshop  Years: 2 to 6

There are many students who have difficulty making the transition from being counters to part-whole thinkers. This is often due to a gap in number knowledge including place value and basic facts. This is a practical hands-on workshop which includes ideas and activities to assist teachers to bridge this gap. Attendees will explore the pedagogy behind children’s thinking as well as games and activities to take away with them.

F12  Students’ and Teachers’ Use of ICT in Primary Mathematics

Dr Esther Yook-Kin Loong - Deakin University
Brian Doig - Deakin University
Ass Prof Susie Groves - Deakin University

Lecture  Years: 3 to 6

This paper reports on the findings of a research project that investigated the use of Information and Communication Technologies (ICT) in Primary mathematics in an urban and rural network. Surveys and semi structured interviews were held to obtain insight into teachers’ and students’ perceptions and attitudes towards the usage of ICT in the teaching and learning of mathematics. The presentation will highlight the findings and include a discussion on the types of ICT that students use in and out of school to learn mathematics.

F13  Google SketchUp Showing in 3D!

Antje Leigh-Lancaster - Australian Mathematical Sciences Institute (AMSI)

Computer Workshop  Years: 3 to 10

Google SketchUp is a free software package, which can be used to explore, explain and present ideas using 3D models. This workshop is aimed at beginner users with no prior experience. Participants will learn how to use the basic features of the software and explore possible classroom applications and ideas in particular in the content area of Space.

F14  Providing Insights Into Student Thinking to Aid Their Success

Alec Young - ITE

Lecture  Years: 3 to 12

It is universally recognized that quality teaching is the most important factor in improving students’ outcomes. I will demonstrate how you can assess the paper work of twenty students in less than two minutes and disclose the nature of their errant thinking to help you better understand their learning needs. These insights will also include vital knowledge of students’ abilities and identify gaps in their learning not observable under conventional assessment. You will see how this exceptionally powerful feedback can help you improve your teaching effectiveness. (Commercial Presentation)

F15  Exploring Maths with the MATHOMAT Template

John Lawton – Objective Learning Materials

Workshop  Years: 4 to 9

Learn how to use this widely available, and inspiring, teaching aid to engage students with key concepts in the maths curriculum. Participants will spend most of their time in this workshop engaged in groups completing three hands on challenges with the MATHOMAT template. These challenges will be introduced using the on-screen Mathomat drawing environment, video clips from other professional development sessions with Mathomat and the interactive and printed lesson plans that are available for use with Mathomat. The materials used in the workshop may be
retained for immediate implementation of the skills and knowledge learned during the workshop. (Commercial Presentation)

Repeated as B19

F16 Working Mathematically: Australasian Problem Solving Mathematical Olympiads Workshop
Dr Anne Prescott - APSMO Inc
Jon Phegan - APSMO Inc

Workshop Years: 5 to 8
This workshop introduces the APSMO Maths Olympiads Program and its benefits through the enhancement of mathematical problem solving abilities. The Olympiads are open to all students in years 5 to 8 and consist of a series of five contests aimed at increasing enjoyment and enthusiasm for mathematics through working mathematically. (APSMO Inc is a non-profit organisation - Commercial Presentation)

Notes: Please bring writing materials - but calculators are not allowed!

Repeated as E18

F17 Using a Measurement Model and Partitioning Whole Numbers to Develop Fraction Understanding
Catherine Pearn - University of Melbourne
Dr Max Stephens - University of Melbourne

Workshop Years: 5 to 9
Students who appear to have successfully mastered routine algorithms for working with fractions often lack deep understanding of fractions - concepts, representations and use of number lines. Students’ inability to represent fraction numbers on a number line may in part be a result of their limited experiences in using number lines (measurement model) in their work on whole numbers. This session will be hands-on and uses paper folding, fraction walls and number lines to develop an understanding of fractions using a measurement model and experiences in partitioning whole numbers.

Repeated as G21

F18 Measurement and Technology – Using Data Loggers
Bronwyn Quint - Museum Victoria
Daniel Avano - Museum Victoria

Workshop Years: 5 to 9
Data loggers have been used in science classrooms for some time now, but can they be used in the maths classroom as well? Using data loggers, ‘real’ data can easily be collected by students using sensors. Graphs and tables can be shown to have relevance to ‘real’ events, not just numbers copied out of a book. Using data loggers to collect the data used for analysis, changes in variables can be tracked showing the resulting changes in graph shapes and data trends. Combining collected data with a program such as Excel students can easily produce tables and graphs for analysis.

Repeated as E23

F19 Building Understanding in Middle Years – Algebra
Dr Ian Lowe - The Mathematical Association of Victoria

Workshop Years: 5 to 10
Participants will engage in some key activities and understandings that can both motivate students and enhance their understandings. Areas covered will be algebraic functions, equations, expanding and factorising - all both linear and quadratic.

Repeated as B23

F20 Problem Solving Strategies Using On-Line Enablers
Mark Graber - Curtin University

Computer Workshop Years: 5 to 10
Children seem to be natural problem solvers and delight in the challenges that are provided for them. Teachers who are careful observers of what children do can begin to provide many opportunities for helping them build their skills in problem solving. At the same time, it is important to let children create and solve some of their own newly discovered problems. As the emphasis has shifted from teaching problem solving to teaching via problem solving many writers have attempted to clarify what is meant by a problem-solving approach to teaching mathematics. During this session we will address the opportunities that MAWA’s “Have Sum Fun On-Line” presents towards developing problem solving skills in mathematics classrooms.

Repeated as B22
Using Algebra to Make Generalisations
Dr Heather McMaster - Macquarie University

Workshop Years: 5 to 10
Algebra is a means of generalising about numeric relationships so problems can be solved more easily. Many people never see the purpose of algebra or recognise its power because they never understood the meaning of ‘variable’ as ‘any number’. By combining Algebra with Number, the National Curriculum gives more opportunity to develop students' skills at generalising. Students’ ability to generalise develops by exposing them to different contexts from which common mathematical structures are explicitly identified. In this workshop, teachers will be presented with simple contexts and practical ideas to help students explain numeric relationships and express them in algebra.

Not repeated

Meaningful Mathematics - Number and Algebra
Sharon London - Cambridge HOTmaths

Workshop Years: 5 to 10
Ready-to-use activities and investigations online at any time you need them. In this workshop you will take part in hands-on activities and investigations from Number and Algebra, designed to fit perfectly into your teaching. Discover new ways to involve and engage your students in meaningful mathematics. *All activities are Australian Curriculum-friendly and can be found on the Cambridge HOTmaths website. (Commercial Presentation)
Repeated as E24

Getting Fractions Sorted
Damian Howison - MacKillop College, Swan Hill

Workshop Years: 6 to 9
This workshop explores a set of grouping and sorting tasks using simple tiles. The non-threatening nature of the tasks and simplicity of questions enable learners to engage easily giving teachers the time and space to wander the room and listen to the ensuing discussion. An effective tool for formative assessment, this allows the teacher to seize upon common misconceptions or gaps. It is suggested that the tasks might prove valuable as a mid-unit assessment on fractions. Partly inspired by Malcolm Swan’s (University of Nottingham) “Improving learning in mathematics”, the tasks are readily adaptable and work very well in the differentiated classroom.
Not repeated

So This Will Be/Has Been Your First Year of Teaching Mathematics?
Robert Vermay - St Paul’s Anglican Grammar School

Lecture Years: 6 to 12
An experienced mathematics teacher at the end of his career shares a range of ideas and strategies that may be of interest to beginning teachers. This workshop will explore a range of issues of interest to new mathematics teachers including classroom activities, common errors, class and time management, assessment, ideas and resources, dealing with parents, etc. Other issues may arise during discussion and will also be addressed. This is a repeat of a popular option presented in 2009.
Not repeated

Learning by Reflecting – A Pedagogy for Engaged Mathematics Learning
Prof Berinderjeet Kaur - National Institute of Education

Lecture Years: 7 to 9
Reflection involves active, persistent and careful consideration of any form of knowledge. Students who are engaged in reflection learn more and find learning rewarding. Mathematics tasks are important vehicles for classroom instruction and through appropriate mathematical tasks teachers can engage their students in reflection. Some “What strategies” such as What's wrong?, What's missing?, What's redundant and What's missing? have been found to evoke reflection amongst learners during mathematics lessons.
Not repeated

The Importance of Exploration Task to Consolidate Mathematical Thinking and Understanding
Michelle Moses - Elisabeth Murdoch College

Workshop Years: 7 to 10
Most students in the Middle Years are not ready for abstract mathematics. This workshop will give teachers an idea as to why concrete tasks are important to consolidate mathematical understanding. Concrete activities demonstrated at this workshop will assist and develop your students understanding and thinking in number as well as address mathematical misconceptions.
Repeated as A28
F27  Dancing Robots and Catching Like Terms - Interactive Lessons Designed to Engage
   Vebeica Evans - Pearson

Computer Workshop   Years: 7 to 10
Don’t have time to hunt online for learning interactives? Have new laptops but don’t know how to best utilize them?
Sick of seeing interactives that are ‘edu-tainment’ rather than good pedagogy? After scouring the globe for great
digital learning, Pearson have found it. If you’re sick of the hype, and want to see something that is engaging, caters
for all learners, is truly interactive and involves deep learning, then come and see our surprise...Not to be missed-
the best interactive learning available. (Commercial Presentation)
Repeated as D25

F28  Animation, Iteration and Tool Making Using Geometer Sketch Pad
   Lloyd Stagg - Red Cliffs Secondary College

Computer Workshop   Years: 7 to 11
Experienced users of GSP (or similar dynamic geometry software such as Cabri or GeoGebra) will enjoy the
opportunity to create tools for often used polygons and use these to explore tessellations, nets, logos and geometric
design. Animation to represent simple models such as the solar system will also be explored. Finally the power of
iteration to automate processes will also be used to construct a fraction modeller.
Repeated as D28

F29  Twenty-Four Seven
   Hayden McQueenie - Huntingtower
   Marion Myers - Huntingtower
   Des Lyristis - Huntingtower

Computer Workshop   Years: 7 to 12
With the crowding of the mathematics curriculum and the heavy demands placed on students, it is becoming a
necessity for teachers to provide 24 hour assistance and support to their students. Advances in, and the increasing
availability of, Information and Communication Technologies, makes this possible. In this computer workshop, we
will explore how online resources, such as Maths Online and the Math Help Forum, can be used to provide free 24
hour assistance to our students.
Repeated as G30

F30  Some Rational Number Computations
   David Leigh-Lancaster - Victorian Curriculum & Assessment Authority (VCAA)

Computer Workshop   Years: 7 to 12
In this workshop we will use the Computer Algebra System (CAS) Mathematica to explore some aspects of rational
numbers and rational number computations. No previous experience with Mathematica is required.
Notes: Participants should be familiar with a Windows software environment.
Repeated as A30

F31  Visual Models for Multiplying Fractions
   Jim Hogan - University of Waikato

Workshop   Years: 7 to 12
Seeing where all the numbers come from when multiplying fractions and decimals helps to understand the process.
The question “What is my one?” is given meaning. This workshop relies on using the common array method for
modelling multiplication to explain simple and complex multiplication of both fractions and decimals.
Repeated as A31

F32  The Australian Mathematics Curriculum: An Incentive to Teach Mathematics Conceptually?
   Richard Andrew - Teacher Training Australia

Workshop   Years: 7 to 12
It could be argued that The Australian Curriculum, through its four proficiency strands, is calling for a more
conceptual approach to teaching maths, (different to the traditional rules-based approach). In this session you
will: * Investigate/receive several teaching ideas/resources which align to the new curriculum. * See that teaching
conceptually can be fun and dynamic! * See that this new approach is a paradigm shift in teaching! This one hour
session can only touch this big topic. However, you will be introduced to some Online PD which is pedagogically
aligned with the Australian Curriculum. Hence this is classified “Commercial Presentation”.
Repeated as A32

F33  Making the Most of Mathletics in the Secondary School Setting
   Jason d’Offay - 3P Learning

Computer Workshop   Years: 7 to 12
This workshop focuses on how to best use Mathletics to meet student needs and improve results in the Secondary
classroom. We will be discussing different models of effective use of Mathletics and there will be an opportunity
for participants to share their own ideas on how the resource can best be used. We will be revisiting some of
the functions in the ‘Teacher Centre’ and how they can be utilised to maintain student engagement and help
students to achieve better results. We will also be discussing some different modes of differentiation. (Commercial
Presentation)

Repeated as B35

F34  Putting Autograph to Work (Younger Students)
Douglas Butler - iCT Training Centre, Oundle (UK)
Workshop  Years: 8 to 10
With so many software resources available, what makes Autograph special? Douglas will illustrate lesson plans
for the younger pupils, showing some of the pedagogically rich aspects of Autograph. Pupils can be easily drawn
in to an interactive involvement with what is happening on the screen through the judicious use of slow plot and
controlled animations, and the 3D element is of course a special bonus. The inclusion of images allows new insights
into applications that strongly support the STEM agenda too. A ‘walk-about’ graphics tablet and Autograph’s new
“Save to Web” feature will be demonstrated. Weblink: www.tsm-resources.com (Commercial Presentation)
Notes: Delegates can bring Laptops - software will be provided

Repeated as A34

F35  GeoGebra - Some Interesting Opportunities at Years 9-10
Lynda Ball – The University of Melbourne
Dr Robyn Pierce – The University of Melbourne
Lecture  Years: 9 to 10
Dynamic geometry opens up many opportunities for teachers and students of Years 9 and 10. In this session we
will share some ideas about promoting mathematical thinking with GeoGebra.
Not repeated

F36  Enriched with CAS and More!
Lisa Saffin - Caulfield Grammar School
Rennae Miszturka - Caulfield Grammar School
Workshop  Years: 9 to 10
Engaging and motivating students to develop deeper mathematical thinking and understanding is not a new goal
for teachers. Allowing students the opportunity to become active participants in their learning, developing their own
connections through, not only discussion, but also new and varied experiences, enables this type of learning to
occur naturally within a classroom setting. Both CAS and non-CAS activities are introduced to enrich the students’
mathematical experiences.
Notes: Please bring your CAS calculator to the session

Repeated as C38

F37  NETschool. Mentoring + Maths + Flexible Learning Environment = Successful Learner
Cherie Fist - Bendigo Senior Secondary College
Jim Cowie - Bendigo Senior Secondary College
Workshop  Years: 9 to 12
NETschool Bendigo re-engages young people (15-20) who have a desire to re-integrate with learning. Learners
are not attending a mainstream school for a variety of reasons - mental health issues, pregnancy, family difficulties.
Learning can take place at the NETschool centre, or online via the NETschool Bendigo online community. As Bendigo
Senior Secondary College (BSSC) teacher I work with the mentors at NETschool to reach the mathematical goals
the learners have individually decided in their personal learning plans. Learners complete work for VCE Foundation
Maths and VCE General Maths. Learners attend BSSC classes when appropriate confidence level is reached. A
maths skills program also runs. Diagnostic testing and career paths are considered. Learners are referred from
BSSC, Year 7-10 schools and community organisations.

Repeated as A38

F38  ClassPad eActivities
Charlie Watson - The Tuiton Centre
Workshop  Years: 9 to 12
The incredible power and flexibility of eActivities is often overlooked by many ClassPad users. This workshop is a
hands-on session for teachers to see what’s possible and then develop their skills in using and creating eActivities
to pass on to their students. Participants are assumed to have a reasonable working knowledge of ClassPad
to keep up with the hands-on activities, but if you don’t, just come along, sit back and let the ideas fire up your
enthusiasm. Bring your own ClassPad where possible to load free copies of example eActivities onto it. There will
also be ClassPad’s to borrow.
Notes: Charlie has presented similar sessions for over 10 years at MAWA State Conferences and Conventions and
has created over 130 ClassPad help sheets and videos on the popular ClassPad Help Series site at www.classpad.com.au.

Repeated as E37

F39  Accessing Real Data for Use in the Classroom
Jean Arnott - Australian Bureau of Statistics

Computer Workshop  Years: 10 to 11
The Australian Bureau of Statistics website, in particular the CensusAtSchool (C@S) Project, is a rich source of free data for use in classrooms. In this practical session, teachers of Years 10 and 11 will have the opportunity to familiarise themselves with the ABS website including time series data sets, and Consumer Price Index pages. Teachers will also navigate through the CensusAtSchool web pages to view relevant new resources and support material. As part of working through the new ‘QuickC@S’ mini lessons they will use some basic properties of Excel 2007 such as fitting a trend line to a scatter plot.

Repeated as D37

F40  An Ocean of Opportunity: Exposing Students to Real Applications of Mathematics
Dr Giles Thomas - Australian Maritime College, University of Tasmania

Lecture  Years: 10 to 12
An interactive session; applying the mathematics which students are currently learning in Years 10, 11 and 12 to real-life engineering applications, with examples of:
 ◦ integration, as used in ship hydrostatics, plus an engineering approach to checking the answer;
 ◦ superposition of sine/cosine functions to create irregular waves;
 ◦ differential equations, as used in the time-domain simulation of racing yacht performance; and
 ◦ scaling techniques for relating ship models to the full scale vessel.
A look at how we can get students excited about learning mathematics by demonstrating its use in the industrial world and also open their eyes to the possibilities of a career using these skills.

Notes: Please bring graphics calculator, pen or pencil & ruler

Repeated as B38

F41  Using the ClassPad to Enhance Your Year 11 Methods Teaching
Kevin McMenamin – The Peninsula School

Workshop  Years: 11 to 12
This session will introduce some lesson activities that can be used directly in your Year 11 Methods classes. They will also be a springboard for you to create your own applications.

Notes: If possible please bring your ClassPad along for the session.

Repeated as D40

F42  Programming with TI-Nspire
Raymond Rozen - RMIT University
Shirly Griffith - John Wiley & Sons Australia

Workshop  Years: 11 to 12
The latest operating system version V2 now provides enhancements for writing programs on the TI-Nspire. In this session we use a hands-on approach to write, edit and run some programs. (Commercial Presentation)

Notes: Please bring your own TI-Nspire with Operating System V2, basic understanding of TI-Nspire and some programming an advantage.

Not repeated

F43  Mathplot - Using Computers in a Maths Classroom with Year 11/12+ Students
Robert Rook - Mathplot

Computer Workshop  Years: 11 to 12
This session will run through using technology (Mathplot) in the classroom for Years 11/12+. Among the topics covered are graphing, calculus, consumer maths, complex numbers, distributions, functions, parametric and polar graphs, regression, statistics (junior & senior), trigonometry, probability and vectors to name a few. Use of the senior worksheet generator (Further, Methods and Specialist), topic revision/test program, homework book generator and crossword/wordsearch generators will be explained. All attendees will receive a free registered copy of the latest CD to take home and load on their home computers. (Commercial Presentation)

Repeated as G42
SESSION F-G: 10:45am - 1:00pm Friday 3rd December (Extended Session)

FG-1 Strategies to Enhance the Teaching and Learning of Number P-4
Gerard Lewis - Catholic Education Office Melbourne
Andrea Dineen - St Peter Julian Eymard Primary School

Workshop

Using strategies from a research based Number Intervention program to inform the teaching and learning of Mathematics in Number P-4. In this presentation we will look at the use of Assessment tools, a Learning Framework in Number and teaching strategies which will enhance the teaching of Number P-4.

Not repeated

FG-2 A Swift Path to Computation
Prof Jyotsna Joshi - School of Advanced Sciences, VIT University

Lecture

‘Vedas’ are treasury of knowledge. The word ‘Veda” is taken from ‘Vid’ means “to know”. The Vedas are the oldest literature. With the passing of time, we lost a great part of this knowledge and in this reference Vedic Mathematics is no exception. In modern times we find a renewed interest in Vedic knowledge. The Vedic Mathematics is so gripping and fascinating that once a person starts taking interest in it, he/she continues doing so and finds ways on its own. Vedic Maths provides very easy, one line, super fast methods along with magic speed cross checking system. In this presentation I will present glimpses of Vedic Mathematics and to show how its learning makes you thrilled by its super fast magic speed computation. It is difficult for anyone to believe it until one actually uses its methods.

Repeated as AB-1

FG-3 MathsOnline.com.au - It’s Far Better Than You Think!
Paul Waddell - MathsOnline.com.au

Lecture

Advanced - With over 1.15 million Australian users by July 2010, projected to break the 1.5 million barrier easily by years end, most Teachers, Students and Parent users THINK they are getting the most out of this fabulous program. Find out how the curriculum can be covered more thoroughly and in a shorter time-frame, how 10-20 minutes can be saved from every one of your lessons, how formative assessment becomes an exercise that is thorough, meaningful and easier to administer, how schools won’t need text-books any more and Parents can save $Hundred’s on Maths tutors every year. MathsOnline... your 24/7 Maths Buddy. While we enjoy the sponsorship of McDonald’s for our High School program, which is likely to cover 2011 as well, we have not at this point secured sponsorship for our Primary Program which was launched in August and will be in full swing by December. While we are in talks with a few suitable sponsors at the moment, we can’t guarantee that this part of our program will not be a commercial enterprise, in that people MAY have to pay for it. We will be entirely upfront with where we are as things progress on all of this.

Notes: Sessions are available for MathsOnline novices (1 hour) and for those who are experienced (2 hours) on each day of the conference. Laptops with wireless internet connectivity are encouraged, but not necessary at any session.

Repeated as CD-2

FG-4 Practical Ideas for Differentiating Instruction: Number and Algebra Concepts Years 5-8
Anita Chin - Anita Chin Mathematics Consultancy

Workshop

Students learn at different rates and in different ways. This hands-on workshop will provide practical ideas for differentiating both the content and the concrete materials being used to meet the full range of students’ needs and abilities in a mixed ability classroom. Teaching sequences for connecting number concepts with algebraic thinking will be modeled. Open-ended questions and visual aids will be used to develop students’ use of mathematical language and their ability to think, reason and work mathematically. Fun and engaging teaching and learning activities will provide ideas for posing challenging problems using basic content. Black line masters will be provided.

Not repeated

FG-5 TI-Nspire for Computers at the Singapore School of Science and Technology
Dr Sarah Davis - National Institute of Education, Singapore

Computer Workshop

In this hands-on session participants will be exposed to a series of lessons that integrate Google Applications, NetLogo, and TI-Nspire for aggregating and analyzing student generated data. As an example, in one lesson students analyzed traffic patterns around the school. Students in multiple classes took pictures of traffic at different times of day and locations, the location of the pictures were input into a shared Google Map, the number of cars, trucks, buses and motorcycles were counted and entered into a shared Google Spreadsheet, once data from all classes was input, it was copied over to TI-Nspire for statistical analysis.

Repeated as CD-7
FG-6 Developing Algebraic Understanding  
Assoc/Prof Marj Horne - Australian Catholic University  
Workshop  Years: 7 to 9  
Understanding algebra and operating with the symbols and signs of algebra is an enabler for students continuing with mathematics. Activities and approaches to support student learning in this area will be explored with a focus on the ‘big ideas’. Algebra can be fun.  
Not repeated  

FG-7 Using ‘Algebra Blocks’ to Teach Integers, Expansion and Factorisation  
Michael O’Reilly - Mill Park Secondary College  Norrian Rundle - Epping Secondary College  
Workshop  Years: 8 to 10  
This double session is an introduction to ‘Algebra Blocks’. ‘Algebra Blocks’ are a hands-on teaching aid used to introduce and teach Middle Years students directed numbers and expansion & factorisation of algebraic terms. The focus will be on how to introduce and teach algebraic expansion and factorisation using this successful hands-on teaching aid. This will include both linear and quadratic expressions. Detailed notes, including many examples, will be provided. Teaching strategies will be explained throughout the session. We will also provide participants with the templates to cheaply make their own class sets of ‘algebra blocks’.  
Notes: We will be developing the ideas firstly with integers, and then move on to algebraic expansion and then factorisation. The ideas of using arrays and the algebra blocks build on the initial work with integers. Participants should bring along a USB Memory Stick.  
Not repeated  

FG-8 A Land Surveyor’s Mathematical Toolbox  
Dr Allison Kealy - University of Melbourne  Julie Tillyer  
Workshop  Years: 9 to 10  
This hands-on, interactive workshop would suit teachers looking for activities that demonstrate practical applications of geometry and trigonometry. Participants will have access to state-of-the-art surveying equipment and will undertake case studies such as setting out a soccer field, determining the height of a building and measuring how far a javelin has been thrown. These activities are also included in the Student Surveying Days, which are free Mathematics excursions sponsored by the Surveying Task Force whereby students undertake practical Surveying activities with the help of fully qualified Surveyors.  
Repeated as AB-3  

FG-9 No Thought Left Behind  
Peter Fox - Elisabeth Murdoch College  
Workshop  Years: 10 to 12  
The Computer Algebra System is a catalyst thrust into the mathematical curriculum designed to increase student thinking. This workshop focuses on a series of problems that highlight the appropriate and effective use of CAS. After teaching and researching CAS for the past 10 years, I have collected a wealth of mathematical GEMS, come along for the ride as participants help guide this investigative journey.  
Not repeated  

FG-10 Exploring the Potential of the TI-Nspire in Statistics (Hands-On)  
Prof Peter Jones - Swinburne University of Technology  
Workshop  Years: 11 to 12  
The TI-Nspire with the latest version of its operating system (OS2) comes with very much enhanced statistical capabilities. This session will give participants hands-on experience using the TI-Nspire with the aim of assessing its potential in VCE level statistics and, in particular, its use in conducting statistical investigations.  
Not repeated  

SESSION G: 12:00pm - 1:00pm Friday 3rd December  

GK1 Developing Deep Understanding in Students – The Role of Real World Applications and ICT  
Ian Edwards - Luther College  
Keynote  Years: 8 to 11  
One of the holy grails in Mathematics is the development of mathematical modelling competency in students. How can you develop the Mathematical Modelling Competency within the numerous treads of a teaching for mathematical understanding framework? Blomhøj and Jensen, 2006 have described Mathematical Competency as the learner’s insightful readiness to act in response to the challenges of a given situation. How can we utilise activities in a technology active environment to assist students in developing deeper insights and the development of reflective practice?
Currently, Ian Edwards teaches at Luther College in Victoria. During 2003-5, he was involved in the RITEMATHS project a Federal Government Research Grant run by the University of Melbourne and University of Ballarat. The project examined the way students use technology to develop mathematical understandings in modelling. Ian has presented at numerous local and national workshops and conferences, which have included being a showcase presenters at the AAMT at the Quality Teacher of Middle Years Mathematics Conference and the Harvard University – Teaching for Understanding Conference. His passion is to see students grow deep understanding in Mathematics using real world applications and appropriate learning activities which utilise the power of ICT platforms.

G2 Angles in the Curriculum: What the Australian Curriculum Doesn’t Tell You
Allan Turton - Origo Education

Workshop
Years: K to 6

Many angle activities involve undefined expressions, unexplained rules and unfriendly protractors. The Australian Curriculum provides some information on teaching angle, but not nearly enough detail. This session will engage participants in hands-on activities designed to clarify, develop and strengthen concepts about angles from the early years.

Not repeated

G3 Consumer and Financial Literacy and the Australian Curriculum: Mathematics – What and How?
Will Morony - AAMT

Lecture
Years: K to 12

During 2010 the AAMT has been providing advice to the Australian Securities and Investment Commission (ASIC) on aspects of Consumer and Financial Literacy in relation to the forthcoming Australian Curriculum: Mathematics and its implementation. This session will report the findings and directions emerging from the project:

◊ the treatment of Consumer and Financial Literacy in the documents;
◊ resources and professional learning that will support teachers of mathematics in relation to Consumer and Financial Literacy; and
◊ promoting the importance of the area to teachers of mathematics.

Repeated as D2

G4 Finding the Numeracy in Literacy
Kim Kirkpatrick – Kennington Primary School
Sherilyn Butler – Kennington Primary School

Workshop
Years: P to 6

Kim and Sherilyn will share a number of different texts that are great hooks to engage children in Mathematics. They will demonstrate a variety of ways to use books during Maths sessions and provide participants with a list of books and activities that integrate Numeracy and Literacy. They will also share their school’s experience using books and activities at all levels during Numeracy and Literacy Week.

Notes: Bring a USB if you would like to save information shared.

Not repeated

G5 The Mathematics Continuum (Prep-6)
Sharyn Livy - The Mathematical Association of Victoria

Lecture
Years: P to 6

Throughout this year I have met many teachers who are not aware of the valuable teaching resources available on the DEECD website. This workshop will provide participants with an overview of the continuum. Discussion will also include how Primary teachers can implement a differentiated curriculum using a range of mathematics resources. This will focus on looking at ways of targeting student learning for the range of different VELS levels within a class grouping.

Repeated as B5

G6 Using Whole School Data for Powerful Learning
Helen Edmonds - Concord School
Kathryn Patford - Northern Metropolitan Region
Catherine Blewett - Carlton North Primary School

Workshop
Years: P to 10

This presentation will examine the effective use of a range of data available in every school (Maths Online, VCAA OnDemand Testing, Scaffolding Numeracy in the Middle Years, Fractions and Decimals Online, Naplan data) to inform best practice. Teachers will be given an opportunity to analyse data and will be provided with a series of Ultratnet compatible templates to use in multiple settings.

Repeated as C6
G7  Understanding Mathematics by Looking at the Name “Mathematics”  
Prof Willy Mwakapenda - Tshwane University of Technology, South Africa

Lecture  
Years: P to 12  
What is in the name “mathematics”? This presentation describes what one can begin to understand what mathematics is about by looking at the name “mathematics” itself. The presentation examines a number of forms in which the term mathematics can be written (e.g. maTHEMATICs) and discusses what we can learn about mathematics by looking at the way the term "mathematics" is written.

Not repeated

G8  How Does the Stockmarket and Superannuation Work - And Why Should I Care?  
Robert Vermay - St Paul's Anglican Grammar School

Lecture  
Years: P to 12  
Aspects of financial literacy are mandated in the new national curriculum. This seminar can help you to better understand the stockmarket, investment and superannuation and is likely to be directly relevant to your personal circumstances as well as to your teaching. This lecture will touch on topics such as investing, indices, world markets, buying and selling shares, dividends, managed funds, self-managed superannuation, risks, traps and opportunities. The presenter is a mathematics teacher, and not a licensed financial advisor, who suggests that time to educate yourself may be one of your best investments.

Repeated as B8

G9  Using My Flip Camera and Easi-Speak Microphone to Create Exciting Learning Experiences  
Jo Evans - Edsoft

Workshop  
Years: P to 12  
Have you ever wondered how tools like a Flip Camera and Easi-Speak microphone could be used in your maths classroom? In this session we will look at a range of ways that tools like this can be effectively and easily used by students and teachers to enhance learning and to allow more students to have a voice in the classroom. There will also be a chance for some hands-on to try out a few of the ideas for yourself. (Commercial Presentation)  
Notes: Please bring along your Flip Video or Easi-Speak Microphone or other similar equipment if you have them.

Repeated as H7

G10  Mathletics for Pro’s: Exploring the Advanced Features of Mathletics  
Julie Thompson - 3P Learning

Computer Workshop  
Years: P to 12  
This session is for key school based Mathletics Leaders who are already using Results Manager and setting tasks. We will be focusing on sharing good practice for teaching and assessment using Mathletics. The needs of the group may also include creating tailored courses, ability grouping and looking at new Mathletics additions. (Commercial Presentation)

Repeated as C8

G11  Maths Learning Kits  
Margaret Rockett - Round Table Education

Workshop  
Years: 1 to 7  
Round Table Education is a revolutionary approach in connecting the national curriculum to best teaching practices. Our vision for education is based on some of the best researched and most widely implemented methods of helping students to learn. Such research findings provide the foundation for all our resources. We source, design and create resources that connect directly to specific curriculum concepts. Our meticulously designed Maths Learning Kits, include all a teacher needs to confidently create a stimulating hands-on learning environment for their students. This is a hands-on workshop in which participants will have the opportunity to look at the learning kits and discuss how effectively these activities could support children in learning the mathematical concept. While I don’t promote the purchase of the activities during the presentation, I do make the participants aware of the fact that I am the designer of the Learning Kits.

Repeated as H10

G12  English as a Foreign Language, Maths as a Foreign Practice  
John Bradbury - Northern Territory Department of Education and Training

Lecture  
Years: 1 to 8  
In many remote NT communities, children have limited exposure to English until they begin attending school. This presentation describes part of the journey taken as the result of a project designed to support Indigenous assistant teachers in presenting mathematical concepts to students in ways that will be meaningful. The process of negotiating meaning across cultures is explored and lessons for all teachers of mathematics are drawn.

Repeated as H11
G13  Maths The Ugandan Way
Sue Neale
Workshop  Years: 2 to 10
During 2009, Sue spent four weeks travelling and volunteering in Uganda. It was such a wonderful experience that she is returning with her family in 2011. In Uganda, there are many ways maths is utilised; through games, daily life and in the classroom. This workshop will introduce you to some activities you can incorporate into your Maths repertoire.
Repeated as C12

G14  Promoting Numeracy Through Short and Simple Maths Games
Linda Baron – Chirnside Park Primary School
Workshop  Years: 3 to 6
This is a ‘hands on’ session which will explore a number of short and simple maths games that are easy and fun to learn and play. They can be an ideal start for the beginning of Mathematics lessons for busy teachers looking for new ideas in number to engage students in the classroom and will make a welcome addition to teachers existing repertoires.
Repeated as H13

G15  A Different Slant on Numeracy Intervention
Sue Gunningham - Educational Consultant
Sharon Taylor - Western Metropolitan Region, DEECD
Janice Mesiti - The Grange P-12 College
Lecture  Years: 3 to 8
This session will provide an overview and share the experiences of teachers participating in a Numeracy Intervention Pilot being run in selected primary and secondary schools in the Wyndham Network of Western Metropolitan Region during 2010. The Numeracy Intervention Pilot is a program developed by Professor Peter Sullivan. Unlike other intervention programs, the Numeracy Intervention Pilot aims at preparing the students to fully participate in the mathematics lesson through introducing students to the key concepts and content of the maths lesson prior to the lesson being taught.
Repeated as A14

G16  A Hands-On Approach to Teaching Fractions
George Anderberg - The Mathematics Connection
Workshop  Years: 3 to 8
This workshop will provide participants with an introduction to some hands-on techniques that assist in the understanding of fraction concepts. It will explore Kieren’s 5 fraction constructs (1976) and relate the activities to these constructs. This workshop will cover effective techniques and provide teachers with a sequence for teaching fractions, to students. Practical hands-on examples that are ‘classroom ready’ and sample lesson plans will be provided in the workshop. George Anderberg is a private mathematics consultant to schools working for the “Mathematics Connection”.
Not repeated

G17  Differentiating Our Teaching
Dr Ian Lowe - The Mathematical Association of Victoria
Lecture  Years: 3 to 10
Ian will engage participants in a discussion about how differentiation can be achieved within a typical mixed ability classroom. The method requires balancing open-ended mixed-ability investigations and targeted teaching to needs, and is feasible at all levels.
Repeated as C15

G18  Working Mathematically with Very Little
Douglas Williams - Black Douglas Professional Education Services
Workshop  Years: 3 to 10
Sometimes we think that we must have heaps of equipment and fancy computers to help students learn to work like a mathematician. As valuable as these resources are, the most important component is a teacher who 'lives by' the Working Mathematically process in the preparation, presentation and evaluation of their lessons. Distilled from a Maths on the Move one day session of the same name, this workshop offers an outline of the sort of investigations you can begin with simple materials such as pencil and paper, packs of cards, dice and counters.
Not repeated
G19  Maths on a Mat, and How You Might Amplify Mathematical Ideas With ICT
    Matt Skoss – Centralian Senior College
    Tony Richards – IT Made Simple

    Workshop
    Years: 4 to 10
    What is the mat? It is a large piece of shade cloth (7.2 m x 3.6 m) with a 10 x 5 grid painted on it. Participants will engage in a range of activities from early childhood to Year 10, in the areas of coordinate geometry, algebra, transformational geometry and chance and data. A feature of most activities is the opportunity for strategic questioning by the teacher in-the-moment, probing student understanding of mathematics concepts. During this session, photos, movie clips and audio clips will be collected, and made into a digital artefact for participants to download at a later time. How to integrate ICT strategically into lessons will be modelled.

    Not repeated

G20  So This is Fractions and What Will You Do?
    Naomi Coleman - Gippsland Regional Office
    Neil Cockburn - Korumburra Secondary College
    Alan McMahon - Wonthaggi Secondary College
    Peter McCaughan - Leongatha Secondary College
    Melina Bath - Mirboo North Secondary College

    Workshop
    Years: 5 to 8
    What rich tasks will support student learning of the big ideas in fractions in the middle years? Discover South Gippsland Network’s journey in developing a collaborative unit of work across 4 secondary schools. This workshop will assist teachers to use data to inform their teaching of fractions, to identify student misconceptions, and to use multiple representations, differentiation and scaffolding as teaching approaches. Our team will present learning activities within a unit, that allow multiple entry and exit points and participants will have an opportunity to experience these rich lessons in a hands-on way. Halve your fear of teaching fractions!

    Repeated as A22

G21  Using a Measurement Model and Partitioning Whole Numbers to Develop Fraction Understanding
    Catherine Pearn - University of Melbourne
    Dr Max Stephens - University of Melbourne

    Workshop
    Years: 5 to 9
    Students who appear to have successfully mastered routine algorithms for working with fractions often lack deep understanding of fractions – concepts, representations and use of number lines. Students’ inability to represent fraction numbers on a number line may in part be a result of their limited experiences in using number lines (measurement model) in their work on whole numbers. This session will be hands-on and uses paper folding, fraction walls and number lines to develop an understanding of fractions using a measurement model and experiences in partitioning whole numbers.

    Repeated as F17

G22  The Classroom Organiser - Planning and Tracking Student Progress in the Classroom
    Bill Murray - Mentone Girls Secondary College

    Computer Workshop
    Years: 5 to 12
    The CLASSROOM ORGANISER is an organisational tool that helps the teacher to prepare topic plans that allow for self paced student learning. Student progress can then be tracked in a timely manner. The end result is an individualised student program that provides evidence of student progress. It also helps to improve teacher organisation which helps to create very significant time savings for teachers. Finally the improved lesson organisation and simple, visual tracking of student progress leads to better engagement for students. The workshop will show you how to take advantage of model lesson plans to give you a start and set up the system very quickly and efficiently.

    Repeated as A25

G23  Hungry Brains - Starter Activities and Extension Problems for Introducing Mathematics Topic to Students
    Jo Bradley - Mentone Grammar
    Paul Nugent - Carrum Downs Secondary College

    Workshop
    Years: 7 to 8
    Hungry Brains are activities to get students to start thinking and exploring new mathematical topics using the e5 model. Students share and reflect their work through latest technologies. These activities are quick and easy to use. They are designed to assist new teachers and teachers who are time poor. They are incorporated in the new Jacaranda Maths Quests for the Australian Curriculum. We will also explore how to best utilise these texts through e-learning. (Commercial Presentation)

    Repeated as D23
G24  Quiz - It Maths! The Ultimate Classroom Battle!
Peter Curry - Quiz-it

Workshop  Years: 7 to 9
Quiz-It Maths combines year level appropriate subject matter with pop culture to produce an entertaining and educational trivia competition. Designed for Years 7 and 8, the quiz is an excellent way to gauge students' knowledge before a new area is explored, or to revise content that has already been taught. Quiz-it maths includes DVD games, such as, The Triangulator, Maths Genie, Prime Time Panda's Problem and many more. Professionally trained, energetic Quiz Meisters will come to your school to present the quiz in the location of your choice. Questions are presented along with upbeat music to create an exciting environment that will feel like a TV quiz show has arrived at your campus. (Commercial Presentation)
Notes: Please bring a pen and be ready for some fun!
Repeated as C27

G25  Whole Class Activities for Years 7-10
Theresa Pagon - Strathmore Secondary College
Elvira Palmerella - Strathmore Secondary College

Workshop  Years: 7 to 10
The use of hands-on and practical activities that allow students to thoughtfully engage with the concepts that they are learning help improve student understanding. The most difficult things about running these activities are locating an activity that fits exactly with the concept that you are covering and putting together the required materials. This presentation will provide you with and take you through some whole class activities that you can use in your classes immediately using simple materials that you already have lying around. (Commercial Presentation)
Repeated as C28

G26  Big Ideas, Mathematics and the Australian Curriculum
Jennifer Nolan - Oxford University Press
Melanie Koetsveld - Oxford University Press

Lecture  Years: 7 to 10
Oxford University Press is currently developing teaching and learning resources for the Australian Curriculum for Mathematics based on Big Ideas pedagogy. Join members of our mathematics team, as we unpack these resources. The workshop will provide an overview of the Oxford Big Ideas Mathematics series including Student Books, Progress Books and the broad range of teacher support resources. All workshop participants will also receive an Oxford Big Ideas Mathematics sample pack. (Commercial Presentation)
Repeated as C29

G27  Using Applications to Support Deep Understanding and Engagement
Mark O'Brien - Online Teachers Resource Network

Lecture  Years: 7 to 10
Students engagement increases when the concepts and skills they have learned can be applied to real world problems. Once engaged, these contextual applications of mathematics require the students to think mathematically and help develop deeper understandings and make connections between concepts. This session will present a number of applications written by the presenter. It will also cover how and when to use these applications, how to develop your own, and highlight resources that contain many other applications. The presenter Mark O’Brien is the manager of the Online Teachers Resource Network as well as working part time as Professional Officer for MAWA and in teacher development for DET WA. The material in this presentation supports the proficiency strands of the Australian Curriculum. (Commercial Presentation)
Repeated as D27

G28  Walk This Way
Damian Howison - MacKillop College, Swan Hill

Workshop  Years: 7 to 11
Many concepts in mathematics can be deeply reinforced through kinaesthetic means. We will look at a few of the Maths300 lessons that invite learners outdoors for some richly conceptual learning. We will see ways in which we can discover pi, build human linear functions, get a feel for integers and even unwrap the mysteries of the unit circle. It will also be suggested that in the scheme of things these experiences often create very useful contexts and images that serve to enhance discussion, dialogue and understanding for weeks to come.
Not repeated

G29  Data-Loggers In Mathematics Classrooms
Martin Gregory - Xavier College

Lecture  Years: 7 to 11
Using data-loggers in maths classes. Student learning is enhanced when students produce their own data and do not get tied down by the construction of tables and charts. Data-loggers are a great way to get students to produce

73  2010 MAV Annual Conference
real data and have all the tables and graphs automatically produced, allowing students to concentrate on the
concepts and understanding.

Repeated as H27

G30  Twenty-Four Seven
     Hayden McQueenie - Huntingtower
     Marion Myers - Huntingtower
     Des Lyristis - Huntingtower

Computer Workshop

With the crowding of the mathematics curriculum and the heavy demands placed on students, it is becoming a
necessity for teachers to provide 24 hour assistance and support to their students. Advances in, and the increasing
availability of, Information and Communication Technologies, makes this possible. In this computer workshop, we
will explore how online resources, such as Maths Online and the Math Help Forum, can be used to provide free 24
hour assistance to our students.

Repeated as F29

G31  Mathematics on the Farm
     Dr Heather McMaster - Macquarie University

Workshop

In this workshop you will see and hear some of the ways in which maths is used on farms. You will then be working
with others to help a farmer solve a problem or two.

Notes: Please bring a scientific calculator.

Repeated as B33

G32  The Data You Supply to Students for Analysis Really Does Matter
     Anthony Harradine - Baker Centre, Prince Alfred College

Lecture

Come along and be immersed in the data associated with a number of very engaging processes about which you
will make decisions. Through making the decisions, you will learn how the origin of the data markedly effects how
you think about the task, and as a result how you think about the process of working with data. You will leave with
examples suitable for use in your class that readily promote ways of thinking about data analysis that are fruitful
to further study and a knowledge of what examples make it harder for students to understand the purpose of what
they are being asked to do.

Not repeated

G33  Plants and Maths – A Great Combination!
     Joe Blake – Royal Botanic Gardens

Workshop

The presenter has developed a number of hands-on activities at the Royal Botanic Gardens, many of them Maths-
related. In this session he will cover the following activities:

◊  Making contour lines in the field using simple equipment.
◊  Relating contour lines to irrigation practices.
◊  Using a compass to make a tree canopy map.
◊  Measuring the height of trees using similar triangles.

Joe Blake has been a Maths teacher and Museum Educator since somewhere near the middle of last century.

Repeated as E33

G34  Getting Your ‘Horses’ to Drink at the Trough of Maths
     Richard Andrew - Teacher Training Australia

Workshop

Ever feel that you get rather slim returns for all the effort you give to teaching? That if students were truly on-side,
much more would be achieved? Student engagement is critical to learning. But do we give it enough attention?
This session is a tiny snippet of the 8hr online course “Motivating, Engaging and Managing Students Effectively”,
a course which is revolutionising the practise of many teachers. Come along and be inspired. Because of the
reference to online PD this session carries the classification “Commercial presentation”. However, please note
there will be no pressure to sign up to anything!

Repeated as C35

G35  Interactive Geometry on the ClassPad
     Ian Thomson - Ormiston College

Workshop

This session will focus on the use of the ClassPad to make geometric constructions and animations. A booklet of
activities will be provided. BYO ClassPad or borrow one at the session. References will be made to a research
G36  Assessing Angles with the Australian Rules Set-shot
Terry Lockwood - Marian College Myrtleford
Therese Holland - Marian College Myrtleford

Workshop  Years: 8 to 11
Assessing the available angle on the field when undertaking an Australian Rules Football set-shot is easy and accurate and can change the head-space of the kicker. This hands-on activity can involve statistics, trigonometry, geometry and a touch of psychology. It is possible to equip any footballer with the ability to apply a solid mathematical approach to the ‘set-shot’. This presentation includes a range of practical modelling activities and a video depicting footballers being trained to think mathematically and is designed for the general public to understand.

Repeted as C36

G37  Getting in Touch with TI-nspire CAS Touchpad
Neale Woods - Distance Education Centre Victoria

Workshop  Years: 9 to 12
In this workshop, participants will have a hands-on opportunity to trial the new TI-nspire CAS Touchpad calculator. This session will focus on the new features of operating system 2.0. The material covered will be applicable for both the current TI-nspire CAS Clickpad calculator and the TI-nspire CAS software. Some previous experience with using TI-nspire CAS will be assumed.

Notes: TI-nspire CAS Touchpad calculators will be provided for this workshop. Participants are encouraged to bring an existing TI-nspire CAS Clickpad calculator as well.

Repeted as D33

G38  Playing with Wolfram Alpha
David Leigh-Lancaster - Victorian Curriculum & Assessment Authority (VCAA)

Computer Workshop  Years: 10 to 12
Wolfram Alpha is a web based ‘computational knowledge engine’ which incorporates Mathematica’s computational capabilities and more. It’s a bit like a mathematically/scientifically oriented Google. Inquiries can be made informally as long as they are basically well formed. In this workshop we will play with aspects of Wolfram Alpha for various applications.

Repeted as H34

G39  Teaching With the TI-Nspire CAS Calculator
Shirly Griffith - John Wiley & Sons Australia
Pauline Holland - John Wiley & Sons Australia
Raymond Rozen - RMIT University

Workshop  Years: 10 to 12
This hands-on workshop will provide participants with opportunities to learn to use the TI-Nspire CAS calculator as an effective teaching tool in their classrooms. It is aimed at beginners and those with some experience using the calculator. Participants will receive copies of all notes used. (Commercial Presentation)

Notes: If you have a TI-Nspire CAS calculator please feel free to bring it. Ensure that Operating System 2.0 is installed.

Not repeated

G40  When X - X neq 0: An Introduction to the Algebra of Random Variables
John Kermond - Haileybury College Senior School (Keysborough Campus)

Lecture  Years: 11 to 12
Techniques for finding the pdf of (1) the sum, difference, product and quotient of two independent and continuous random variables, and (2) a function of a single continuous random variable are given and illustrated using simple examples. The theory might provide interesting ideas for the VCE Mathematical Methods Unit 4 Analysis Task 2 (Probability).

Repeted as C43

G41  Putting Autograph to Work (Advanced Students)
Douglas Butler - iCT Training Centre, Oundle (UK)

Workshop  Years: 11 to 12
With so many software resources available, what makes Autograph special? Douglas will illustrate lesson plans for the advanced pupils, showing some of the pedagogically rich aspects of Autograph. The mix of Statistics, 2D and 3D in the same environment can offer new ways to look at vectors, transformations, lines, planes, areas and volumes as well as dynamic data. Recent developments have included linked windows and a fresh look at complex number using a dynamic Argand diagram. A ‘walk-about’ graphics tablet and Autograph’s new “Save to Web”
feature will be demonstrated. Weblink: www.tsm-resources.com (Commercial Presentation)

Notes: Delegates can bring Laptops - software will be provided.

Repeated as B42

G42 Mathplot - Using Computers in a Maths Classroom with Year 11/12+ Students

Robert Rook - Mathplot

Computer

This session will run through using technology (Mathplot) in the classroom for Years 11/12+. Among the topics covered are graphing, calculus, consumer maths, complex numbers, distributions, functions, parametric and polar graphs, regression, statistics (junior & senior), trigonometry, probability and vectors to name a few. Use of the senior worksheet generator (Further, Methods and Specialist), topic revision/test program, homework book generator and crossword/wordsearch generators will be explained. All attendees will receive a free registered copy of the latest CD to take home and load on their home computers. (Commercial Presentation)

Repeated as F43

G43 Countering Further Mathematical Errors?

Andrew Stewart - Presbyterian Ladies’ College

Lecture

For a number of years, the Further Mathematics Chief Assessor’s reports have commented on similar types of errors being committed every year by students in their solutions to Examination 2. Can these errors be overcome by better examination preparation, clearer examination questions or are we up against a student cultural attitude towards mathematics? Join a long time Further Mathematics teacher in discussing these issues.

Repeated as D42

SESSION H: 2:00pm - 3:00pm Friday 3rd December

HK1 10 Very Useful Tips for Becoming a More Effective Maths Teacher

Rob Vingerhoets - RVEC

Keynote

This presentation will detail 10 tips to help make current or prospective teachers of mathematics more effective in that role. Each tip will be accompanied by anecdotes and examples to illustrate the meaning and message behind the tip. These anecdotes and examples are fresh and direct from ‘living and breathing’ Primary and Secondary classrooms. The tips, collectively or individually, may challenge many but they are non-threatening (relatively!) and are gained from experience and learning from my own mistakes. Ultimately, my aim is that they will be useful and help make you a better teacher (of mathematics).

Rob Vingerhoets is an experienced and highly effective educator who has returned to Victoria after working with teachers and students in New York City for 3 years. Prior to this he was a primary school principal, curriculum coordinator and class room teacher. He is an experienced teacher and author, having written a number of best-selling maths resource books and numerous articles. He was also co-author of the original Maths Course Advice- Primary. Rob is a popular and engaging presenter of hands-on and engaging maths ideas and practices to teacher and students in Catholic, State and Independent schools over many years and he essentially believes and teaches by his credo that “maths doesn’t have to hurt”. Rob is back permanently in Australia and works with students, teachers, administration and parents. He is currently leading a major numeracy project in the Western Metropolitan region.

H2 Creating Unique Learning Activities

Tony Collison - School Software

Computer Workshop

Worksheet factory software allows teachers to create learning activities that closely reflect the needs of their students. They do not replace good teaching but they certainly enhance and support the process. Class worksheets, home study activities are easily created, modified, printed and saved for next year. Outcome and foundation statements are easily incorporated as are the levels of achievement. Well worth a look and a hands-on session. (Commercial Presentation)

Repeated as B2

H3 Tomorrow’s Mathematics Classroom Here Today

Gerard Tuffield - Origo Education

Lecture

Learn how ORIGO Stepping Stones lets you:

◊ navigate in a teaching sequence to differentiate instruction,
prepare for teaching by viewing professional learning videos,
effortlessly access appropriate teaching aids for lessons,
access perfect learning objects without searching to find them,
consolidate mental strategies through games,
utilize story big books with related IWB tools to develop mathematical concepts,
project illustrations, diagrams and student pages with/without answers,
select from a range of assessment techniques including multiple choice, short answer and performance tasks,
define mathematical terms,
know your program remains current despite curriculum changes. (Commercial Presentation)

Repeated as D4

H4 Lessons Study – Could it Work For You?
Ass Prof Susie Groves - Deakin University
Brian Doig - Deakin University
Lecture Years: P to 9
There is growing worldwide interest in Japanese Lesson Study as a form of professional development, with adaptations of Lesson Study taking place in hundreds of schools clusters in USA, large-scale adoption in the UK, and smaller scale implementation in Australia, and many other countries, including Chile, Indonesia, Malaysia, Mexico, Peru, Philippines, Singapore, Thailand, and Vietnam. This presentation will use classroom video to illustrate the typical Japanese structured-problem-solving research lessons that form the basis for Lesson Study, and discuss how they are planned, the role of the teacher, and the use of Lesson Study as a means of professional development.
Not repeated

H5 Improving Mathematics Learning in the Kingston Network: Our Story
Nadia Walker – Educational Consultant
Paul Arnts - DEECD
Bryony Lowe - DEECD
Lecture Years: P to 10
The Kingston Network in Southern Metropolitan Region is made up of 27 schools, including Primary, Secondary and Special schools. This session is chapter 1 of our story: an ongoing project towards making improvements to mathematics teaching and learning network wide. Through taking an assessment focus, our goal is to have a Whole Network Assessment Schedule as well as a common and agreed understanding about what high quality mathematics teaching is all about. This is how we have started the journey …
Repeated as D6

H6 Using Developmental Continuum of Understanding to Create Real Mathematicians in Your Classroom
Bruce Williams - CreatingRealMathematicians.com
Lecture Years: P to 11
A developmental approach allows all students and teachers to succeed in mathematics. We will show how you can make all your students real mathematicians who can think, problem solve, reason and even know their times tables! This will be an interactive hands-on workshop on many mathematical topics that enhance teaching and learning for students and teachers alike in all educational settings. The goal of the classroom is to develop understanding. You will leave with a new understanding of how mathematics works and a huge array of ideas to implement back in the classroom. We will show you how you can get all students to think like real mathematicians. Please note: This presentation is an algorithm free zone!
Not repeated

H7 Using My Flip Camera and Easi-Speak Microphone to Create Exciting Learning Experiences
Jo Evans - Edsoft
Workshop Years: P to 12
Have you ever wondered how tools like a Flip Camera and Easi-Speak microphone could be used in your maths classroom? In this session we will look at a range of ways that tools like this can be effectively and easily used by students and teachers to enhance learning and to allow more students to have a voice in the classroom. There will also be a chance for some hands-on to try out a few of the ideas for yourself. (Commercial Presentation)
Notes: Please bring along your Flip Video or Easi-Speak Microphone or other similar equipment if you have them.
Repeated as G9
H8  Qwizdom Mathematics
Andy Penman - Qwizdom Mathematics

Workshop  
Years: P to 12
Over the past 6 or so years in different parts of the world including the UK and the US, large clusters of Mathematics clusters have been investigating the concept of using numerical response system handsets within classes. The ability to gather sets of data and analysis this with the class has had dramatic impacts on areas of Mathematics such as mental maths and data collection. This session looks to place you at the heart of a lesson like this and see how you respond! (Commercial Presentation)

Repeated as D7

H9  Achieving More with Mathletics
Kate Williamson - 3P Learning

Computer Workshop  
Years: P to 12
This workshop will focus how Mathletics can be implemented in your school. It is best attended by experienced users of Mathletics looking for that ‘something extra’ from the resource. (Commercial Presentation)

Repeated as D8

H10  Maths Learning Kits
Margaret Rockett - Round Table Education

Workshop  
Years: 1 to 7
Round Table Education is a revolutionary approach in connecting the national curriculum to best teaching practices. Our vision for education is based on some of the best researched and most widely implemented methods of helping students to learn. Such research findings provide the foundation for all our resources. We source, design and create resources that connect directly to specific curriculum concepts. Our meticulously designed Maths Learning Kits, include all a teacher needs to confidently create a stimulating hands-on learning environment for their students. This is a hands-on workshop in which participants will have the opportunity to look at the learning kits and discuss how effectively these activities could support children in learning the mathematical concept. While I don’t promote the purchase of the activities during the presentation, I do make the participants aware of the fact that I am the designer of the Learning Kits.

Repeated as G11

H11  English as a Foreign Language, Maths as a Foreign Practice
John Bradbury - Northern Territory Department of Education and Training

Lecture  
Years: 1 to 8
In many remote NT communities, children have limited exposure to English until they begin attending school. This presentation describes part of the journey taken as the result of a project designed to support Indigenous assistant teachers in presenting mathematical concepts to students in ways that will be meaningful. The process of negotiating meaning across cultures is explored and lessons for all teachers of mathematics are drawn.

Repeated as G12

H12  Making Maths Lessons Marvellous
Gabrielle West - Curriculum, Teaching and Phases of Learning (CTPoL)

Workshop  
Years: 1 to 8
Make your mathematics lessons marvellous for both the teacher and the students, by using a variety of inexpensive, everyday objects like circular tablecloths, tea towels, quilt covers, skateboards, paddle pop sticks, elastic, coloured paper and card, clothes line and pegs, and the 3 D’s (dice, dominoes and a deck of cards) that will engage the learner and produce results! The Mathematics strands of Number, Algebra, Measurement, Space, Chance and Data are covered in this active session which includes ways to open-up ‘closed’ activities and make connections to other curriculum areas. A resource CD is provided.

Repeated as C11

H13  Promoting Numeracy Through Short and Simple Maths Games
Linda Baron – Chirnside Park Primary School

Workshop  
Years 3 to 6
This is a ‘hands on’ session which will explore a number of short and simple maths games that are easy and fun to learn and play. They can be an ideal start for the beginning of Mathematics lessons for busy teachers looking for new ideas in number to engage students in the classroom and will make a welcome addition to teachers existing repertoires.

Repeated as G14
H14  Building Resilience to Build Problem Solving Capacity: Tasks Implemented for this Purpose  
Gaye Williams - Deakin University  
Workshop  
Years: 3 to 8  
This session has been set up for participant analysis of the types of tasks discussed in my keynote address (Presentation 1: F) on how student thinking and teacher reflection can inform school implementation of the National Mathematics Curriculum. Participants will have opportunities to work in groups to identify features of tasks, and features of the teaching approach used, that contributed to students becoming more resilient and thus more able to take up problem solving challenges, and develop deep understandings as a result. Teachers working in such sessions have been known to develop new insights themselves. It can be quite exciting!  
Not repeated

H15  Building Understanding in Middle Years - Number  
Dr Ian Lowe - The Mathematical Association of Victoria  
Workshop  
Years: 3 to 10  
Participants will engage in some key activities and understandings that can both motivate students and enhance their understandings. Areas covered will be fractions, decimals, percentage, ratio and proportion.  
Repeated as D14

H16  Online Resources For Maths  
Hang Nguyen - Koonung Secondary College  
Computer Workshop  
Years: 4 to 9  
Teachers will be shown a wide range of free resources and programs that are available online; including maths activities to printable worksheets to downloading a video from YouTube.  
Notes: Please bring your USB stick  
Repeated as D16

H17  Jack and Jill's Buckets  
Damian Howison - MacKillop College, Swan Hill  
Workshop  
Years: 4 to 10  
Jack and Jill went up the hill to …..well, you know how it goes. What is not widely known is that at the top of that hill was something of a mathematical conundrum. There is very little skill involved in the solution yet it is rich in ways of working mathematically. This, and the fact that it starts out as a fun, hands-on lesson, make the problem a wonderfully simple yet effective invitation for all students to learn to work like a mathematician. We will find out that Jack and Jill came down that hill much more knowing than before, despite their little tumble.  
Not repeated

H18  Extending Your Resources  
Iren Dyka - St Paul’s Anglican Grammar School  
Andy Dyka - St Paul’s Anglican Grammar School  
Workshop  
Years: 5 to 8  
As Maths teachers we are always seeking to provide activities that motivate our students to learn. This session illustrates how a simple idea can be extended to create a low cost, professional looking board game which can be utilised for many different topics in Mathematics. Participants will be involved in the thought processes, use of software (Microsoft Excel and Word) and material requirements needed to create a game which is appropriate for their classes. We will look at the entire process from the first idea to the physical completion of the game.  
Repeated as C20

H19  Working Memory and Automaticity: Numeracy Intervention in Secondary School  
Steve MacPhail - Ballarat Secondary College  
Lecture  
Years: 5 to 8  
Students with significant difficulties in Mathematics tend to use time-consuming, inefficient or error-prone strategies to solve simple calculations. In doing so, their working memory gets ‘clogged up’ and as a result they are unable to engage properly with new concepts being taught. The QuickSmart intervention program aims to ‘free-up’ working memory by improving students’ automaticity in the areas of basic arithmetic as well as providing them with key understandings and efficient strategies. At Ballarat Secondary College we are already seeing some extremely promising results. Schools that have been using QuickSmart for a number of years have also seen significant improvements in standardised test results.  
Not repeated

H20  An Angle on Angles  
Douglas Williams - Black Douglas Professional Education Services  
Workshop  
Years: 5 to 8  
Okay so it might not be too hard for kids to learn about right angles, angles in triangles, quadrilaterals and other
polygons and so on, but does it have to be boring? Like every other area of mathematics learning, this should be concrete, visual and make sense, with a little fun on the side. In this workshop we learn about angles and how to measure them and explore them in problem solving situations consistent with learning to work like a mathematician. We will use scraps of paper, software and Rotagrams and make connections to areas of mathematics beyond geometry.

**Not repeated**

**H21 Using CensusAtSchool to Promote Statistical Literacy in Your Middle Years Classroom**  
*Mary-Anne Aram - Australian Bureau of Statistics*

**Computer Workshop**  
Years: 5 to 9

CensusAtSchool (C@S) now collects National data from students annually. This data can be used dynamically in the classroom in a variety of ways. In this practical session for middle years, teachers will get the opportunity to familiarise themselves with the Australian Bureau of Statistics Education Services free website focusing on CensusAtSchool including new material. Teachers will generate a random sample from C@S data on the web. As part of working through free online extended and new ‘QuickC@S’ mini lessons they will use some basic properties of Excel 2007 such as sorting and arranging data and making charts.

**Repeated as E21**

**H22 Collaboration and the Development of Students’ Reasoning Skills**  
*Colin Shnier - Wesley College*

**Workshop**  
Years: 5 to 10

There is a clear link between sustained use of collaborative activities and the development of students’ ability to reason, justify and explain. Through a mix of theory and practice, participants in this session will explore this link. A range of exemplary collaborative activities will be used. Participants will leave with a set of activities and links that help promote student discussion and collaboration in their classrooms, and increased understanding of how to use them to develop students’ mathematical reasoning skills.

**Repeated as D21**

**H23 Proportional Thinking; from Fractions to Percentages**  
*Jill Smythe – Team Solutions, University of Auckland*

**Workshop**  
Years: 6 to 8

Using double number lines as an effective material to encourage students to work with fractions, decimals and percentages in order to become proportional thinkers.

**Repeated as E25**

**H24 Meaningful Activities to Develop Fraction Knowledge**  
*Averil Lee - University of Otago, New Zealand*

**Workshop**  
Years: 6 to 10

The aim of the workshop will be to provide a range of interesting ways to consolidate the ideas of fractions. Some of these activities can be used with whole class or used for independent activities. They will help to provide a model for teaching the underlying principles that surround fractions. This workshop will be very practical and the participants will be involved in participating in the games and activities.

*Notes: Please bring a calculator and a memory stick.*

**Repeated as B27**

**H25 Teaching for Depth: Where Maths Meets the Humanities**  
*Ian Hauser - Ian Hauser Consulting*

**Lecture**  
Years: 7 to 9

How does our knowledge of literacy strategies used in humanities classes inform our work in mathematics? A Balanced Approach to literacy instruction can be transferred to such an approach in teaching mathematics. Results of a 12 month study conducted with classroom teachers in New York City will be presented, and insights highlighted.

**Repeated as E27**

**H26 Discover, Explore, Connect**  
*Jennifer Nolan - Oxford University Press  
Melanie Koetsveld - Oxford University Press*

**Lecture**  
Years: 7 to 10

Using a combination of recent education research and classroom experience as starting points Oxford University Press has developed a mathematics program based on the Big Ideas principles. Such an approach enables students to see how it fits together, really understand key concepts, transfer understandings to new topics and build fluency along the way. Join Jennifer and Melanie as they share their learning journey and work with you to develop a Big Ideas mathematics approach for your school. (Commercial Presentation)
**H27** Data-Loggers In Mathematics Classrooms  
**Martin Gregory - Xavier College**  
**Lecture**  
Using data-loggers in maths classes. Student learning is enhanced when students produce their own data and do not get tied down by the construction of tables and charts. Data-loggers are a great way to get students to produce real data and have all the tables and graphs automatically produced, allowing students to concentrate on the concepts and understanding.

**Repeated as G29**

**H28** Teach Locus with Geometer’s Sketchpad  
**Karim Noura - Bayside P-12 College**  
**Computer Workshop**  
Teach Locus with problem solving approach at early middle school years. We will explore some Locus problems using Geometer’s Sketchpad, e.g. circle, Line bisector, parallel line, area of triangle, Parabola and ellipse.  
**Notes:** Please bring your Laptop.

**Repeated as D30**

**H29** For the Novice ClassPad User  
**Anthony Harradine - Baker Centre, Prince Alfred College**  
**Workshop**  
If you have never used a ClassPad but need to know how, or are just starting out, then come along and learn how to use a ClassPad, in the ClassPad way. You will leave confident enough to continue exploring new areas of the ClassPad alone. You will also leave with professionally produced documents that will support your next steps.  
**Notes:** BYO ClassPad or use the loan machines that will be available.

**Repeated as D31**

**H30** Making ICT Work for Mathematics - A UK Perspective  
**Douglas Butler - ICT Training Centre, Oundle (UK)**  
**Lecture**  
ICT investment in UK schools has been spectacular, but mathematics classroom use has been patchy. Douglas, an avid collector of resources that can add a sparkle to any lesson, will describe two initiatives that he has been closely involved with, both trying to turn the tide: (1) a Train the Trainers project, which is training 75 trainers in the first year covering 7 core ICT skills for mathematics. (2) a new online magazine for ATM. Douglas will describe the technical challenges, including getting dynamic software to run seamlessly on the web, and persuading teachers to share using Jing videos.

**Repeated as C34**

**H31** Assessment and the Australian Curriculum  
**Richard Andrew - Teacher Training Australia**  
**Workshop**  
With the new Australian Mathematics Curriculum come the four proficiency strands Fluency, Problem Solving, Understand and Reasoning. These proficiency strands will influence not only the way mathematics is to be taught but the style of assessment that will be required. What does it all mean? Attendance at this session will give you some excellent assessment ideas and resources which relate to the new curriculum. You will also be introduced to some Online PD which is pedagogically aligned with the Australian Curriculum. Hence this is classified “Commercial Presentation”. (Please note there will be no pressure to purchase anything!)

**Repeated as D32**

**H32** Working Mathematically with the Casio ClassPad  
**Craig Tellefson - Academy of Mary Immaculate**  
**Workshop**  
In this workshop the Casio ClassPad is used to present an approach to Working Mathematically. Participants will work through investigations that use the main Applications of the ClassPad, with particular emphasis on the Geometry and Spreadsheet Applications. ClassPads will be available for all participants and no experience with this technology is assumed. All ClassPad files will be provided for participants.

**Repeated as A37**
H33  Exploration of Trigonometric Functions Featuring an Inquiry Based Learning Task Extension  
Year 9  
Sue Ditchfield - Monbulk College  
Alan Butterley - Monbulk College  

Lecture  
Years: 9 to 11  
The task to be presented, consists of several sections. Students use the ClassPad and with discussion and teacher direction, learn about trigonometric functions, their properties and some basic transformations through exploration. This leads to a brief modelling question. Students use a KWL chart (Know, Want to Know, Learnt) for scaffolding an essential question and self reflection (in line with e5 approaches). Students undertake an Inquiry Based Learning Poster Task to answer their question and then present this to the class. A VELS based rubric is used for the assessment of ALL sections of this task. Sample student work will be presented along with student and staff feedback. Aimed at extension students at Year 9 or above.  

Not repeated

H34  Getting in Touch with TI-nspire CAS Touchpad  
Neale Woods - Distance Education Centre Victoria  

Workshop  
Years: 9 to 12  
In this workshop, participants will have a hands-on opportunity to trial the new TI-nspire CAS Touchpad calculator. This session will focus on the new features of operating system 2.0. The material covered will be applicable for both the current TI-nspire CAS Clickpad calculator and the TI-nspire CAS software. Some previous experience with using TI-nspire CAS will be assumed.  

Notes: TI-nspire CAS Touchpad calculators will be provided for this workshop. Participants are encouraged to bring an existing TI-nspire CAS Clickpad calculator as well.  

Repeated as G37

H35  Using TI-Nspire for Polynomial Graphing Activity  
Shane Dempsey - Baimbridge College  
Rhiannon Smith - Baimbridge College  

Workshop  
Years: 10 to 11  
This hands-on workshop is for those with either limited use or totally new to the TI-Nspire calculator. An activity entitled The Great Race will be worked through. The task uses the graphing features of the calculator to solve a modelling problem incorporating polynomial graphs.  

Notes: Bring your TI-Nspire calculator or borrow one at the session.  

Repeated as C41

H36  The new TI-Nspire CAS OS2.0/2.1 and the VCE  
Russell Brown – Educational Consultant  
Rodney Anderson – Moreton Bay College, QLD  

Workshop  
Years: 10 to 12  
Why upgrade to the latest OS? What is the difference between the Clickpad (grey) and the new Touchpad(black) handhelds? A hands-on session that looks at the many enhancements available to teachers and students with the latest Operating Systems for the TI-Nspire CAS handhelds. Examples from all the VCE courses will be used to cover the new and/or improved functionality. Some new features of the TI-Nspire Computer (Teacher Edition) computer software will also be covered. Teachers can have their handhelds upgraded to either OS2.0 or 2.1 at the TI stand or at this session.  

Repeated as E38

H37  CAS-enabled activities for the VCE Further Mathematics classroom  
Roger Wander – University of Melbourne  

Lecture  
Years: 11 to 12  
Earlier this year a series of CAS-enabled activities, written specifically for students and teachers of VCE Further Mathematics, was created for users of TI-Nspire CAS. The author/presenter will introduce participants to the series as a whole, and specifically to selected lessons and/or tasks which can deepen student understanding of the underlying mathematical principles. Participants will be provided with worksheets from selected tasks and a CD-ROM with all 20 activities and supporting technology files (also available on the TI website). TI-Nspire CAS handheld calculators with selected technology files will also be available for use in the workshop.  

Notes: Participants need not bring special materials or technology; these will be provided at the workshop (see summary). A working knowledge of TI-Nspire CAS V2.0 will be useful but not essential.  

Repeated as D41
Presenter Listing

George Anderberg - A15, G16
Rodney Anderson - A33, E38, H36
Richard Andrew - A32, C35, D32, F32, G34, H31
Mary-Anne Aram - E21, H21
Jean Arnott - D37, F39
Paul Arnts - D6, H5
Peggy Ashton - D9, E11
Catherine Attard - B26
Daniel Avano - C18, D18, E23, F18
Lynda Ball - F35
Linda Baron - G14, H13
Melina Bath - A22, G20
Darren Beer - C13, D12
Joe Blake - E33, G33
Catherine Blewett - C6, G6
Luke Bohni - A36, B36
Peter Boon - DK1
Elizabeth Bortolot - C23, E19
Karen Boyce - C40, E36
John Bradbury - G12, H11
Jo Bradley - D23, G23
Leicha Bragg - E6, F9
Alan Brookes - C45, E43
Paul Brown - A35, E34
Russell Brown - E38, H36
Ian Bull - B20, C19
Douglas Butler - A34, B42, C34, F34, G41, H30
Greg Butler - C4, D3
Sherilyn Butler - G4
Alan Butterley - H33
Tim Byrne - E17
Adrian Camm - C22, D20
Ewan Campbell - A36, B36
Jeanne Carroll - B7
Jan Cavanagh - A3, E2
Su Hui Chang - E12
Anita Chin - CD-1, FG-4
Catherine Clerks - C7, E8
Peter Clerks - C7, E8
Neil Cockburn - A22, G20
Naomi Coleman - A22, G20
Tony Collison - A5, B2, F4, H2
Michelle Coupland - A4, E4
Jim Cowie - A38, F37
Peter Curry - C27, G24
Sarah Davis - CD-7, FG-5
Shane Dempsey - C39, H35
Cathy Devlyn - A41
Andrea Dineen - FG-1
Sue Ditchfield - H33
Jason d’Offay - B35, F33
Brian Doig - B17, F12, H4
Andy Dyka - C20, H18
Iren Dyka - C20, H18
Helen Edmonds - C5, G6
Ian Edwards - GK1

Lyn Elms - C44, D24, E42
Jo Evans - G9, H7
Vebica Evans - D25, F27

Diane Farrell - A36, B36
Cherie Fist - A38, F37
Fiona Fox - B14, F11
Peter Fox - C31, D29, FG-9
Kat Freeman - B11

Kelly Gallivan - E7, F10
Sue Garner - D34
Fred Ghanem - C42, E41
John Gough - B12
Vanitha Govini - B10, C10
Mark Graber - B22, F20
Bozena Graham - A40, B43
Darren Grantham - A45, E40
Robyn Greenwood - B3, C3
Martin Gregory - G29, H27
Shirly Griffith - C44, E42, F42, G39
Susie Groves - B17, CD-3, F12, H4
Sue Gunningham - A14, G15

Cameron Hallowell - AB-2
Pam Hammond - E5, F7
Anthony Harradine - AB-5, D31, G32, H29
Ian Hauser - E27, H25
Jim Hogan - A31, F31
Pauline Holland - D24, G39
Therese Holland - D33, G36
Marilyn Holmes - A12, B15
Derek Holton - B28, E28
Jan Honnens - E29
Marj Horne - C22, D19, FG-6
Damian Howison - F23, G28, H17
Derek Hurrel - D11

Sue Inness - B21, C24
Kathleen Ireland - A29, B31

Jyotsna Joshi - AB-1, FG-2
Peter Jones - B44, FG-10

Berinderjeet Kaur - E12, F25
Jeannette Kavanagh - CD-6
Allison Kealy - AB-3, FG-8
John Kermond - C43, G40
Kim Kirkpatrick - G4
Sandra Knox - A8, B4
Phong Lee Koay - E12
Melanie Koetsveld - C29, D26, G26, H26
Richard Korbosky - C14, E3

Dean Lamson - A45
John Lawton - B19, D22, E26, F15
Averil Lee - B27, H24
Amanda Legg - A45, E40
Antje Leigh-Lancaster - A17, F13
David Leigh-Lancaster - A30, D38, F30, G38
Gerard Lewis - FG-1
Steve Lewis - A23, E20
Sharyn Livy - B5, G5
John Llewelyn - A42, B39
Terry Lockwood - D33, G36
Sharon London - A24, B25, E24, F22
Bernadette Long - A13, B16
Esther Yook-Kin Loong - B17, F12
Bryony Lowe - D6, H5
Ian Lowe - A16, B23, C15, D14, E14, F19, G17, H15

Donna Ludvigsen - C13, D12
Alastair Lupton - CD-9
Des Lyristis - F29, G30

Steve MacPhail - H19
Ted Marks - A23, E20
Caroline Mazurkiewicz - C5, D5
Peter McCaughan - A22, G20
Janine McIntosh - E22, F5
Alan McMahon - A22, G20
Heather McMaster - B33, F21, G31
Kevin McMenamin - B29, D40, E30, F41
Susan McNabb - CD-6
Allason McNamara - A44, B41
Hayden McQueenie - F29, G30
Shona McRae - A19
Janice Mesiti - A14, G15
Anne Milburn - B14, F11

Rennae Miszkurka - C38, F36
Pam Montgomery - AK1
Will Morony - D2, G3
Michelle Moses - A28, F26
Carol Moule - A20, B18
Frank Moya - D35, E35
Mark Mudge - D15
Bill Murray - A25, G23
Willy Mwakapenda - G7
Marion Myers - F29, G30

Sue Neale - C11, G13
Paul Negri - C45, E43
Hang Nguyen - D16, H16
Andrew Nicholls - B5, F8
Jennifer Nolan - C29, D26, G26, H25
Karim Noura - D30, H28
Paul Nugent - D23, G23

Mark O’Brien - A27, C30, D27, E31, G27
Claire O’Connor - A11, E9
Michael O’Connor - D22, E26
Michael O’Reilly - CD-4, FG-7
Brendan Owen - AB-2

Theresa Pagon - C28, G25
Kathryn Palmer - BK1, C5, D5
Elvira Palmerella - C28, G25
Jodie Parsons - C23, E19
Kathryn Patford - C6, G6
Stuart Payne - A42, B39
Catherine Pearn - F17, G21
Andy Penman - D7, H8
June Penney - E7, F10
Karen Perkins - B34, C33
Jon Phegan - E18, F16
Elizabeth Piemontese - A9

Robyn Pierce - F35
Anne Prescott - E18, F16
Yianna Pullen - E6, F9

Bronwyn Quint - C18, D18, E23, F18
Robert Randall - FK2
Yvonne Reilly - C23, E19
Tony Richards - C16, G19
Joanne Riddell - A4, E4
Margaret Rockett - G11, H10
Angela Rogers - A13, B16
Robert Rook - A20, B18, CD-8, F43, G42
Raymond Rozen - F42, G39
Norrian Rundle - CD-4, FG-7

Lisa Saffin - C38, F36
Maria Schaffner - A41
Shirley Sharples - C44, E42
David Shaw - AK2
Colin Shnier - D21, H22
Geoff Simmons - A29, B31
Megan Skinner - E6, F9
Matt Skoss - C16, G19
Barbara Slusarczyk - A22, E16
Donald Smith - C37
Laurel Smith - A21, E16
Rhiannon Smith - C41, H35
Jill Smythe - E25, H23
Jamos Somerville-McAlester - AK2
Andrew Spencer - D39
Lloyd Stagg - D28, F28
Kyle Staggard - A43, B40
Max Stephens - CD-5, F17, G22
Brett Stephenson - C39, D36
Andrew Stewart - D42, G43
Ken Stewart - B34, C33
Peter Stowasser - D13, E13
Dirk Strasser - B30
Peter Sullivan - CD-6, EK1
Paul Swan - B9, C9, D11
Philip Swedosh - A44

Sharon Taylor - A14, G15
Craig Tellefson - A37, H32
Giles Thomas - B38, F40
Susan Thomas - A9
Julie Thompson - C8, G10
Vivienne Thompson - D17
Ian Thomson - C36, G35
Julie Tillyer - AB-3, FG-8
Tin Lam Toh - A26, C26
Jeff Trevaskis - B24, C25
Gerard Tuffield - D4, H3
Allan Turton - A7, G2
David Tynan - AB-4, CD-10

Kelly Utting - A10, F6
Fiona Van Heuman - C4, D3
Marcel van Otterdyk - E32
Jackie Vella - A4, E4
Robert Vermay - B8, F24, G8
Jenny Vincent - D9, E11
Rob Vingerhoets - HK1
Paul Waddell - B13, CD-2, E10, FG-3
Nadia Walker - CK1, D6, H5
Roger Wander - D41, H37
Jasmine Ng Ee War - E39
June Warren - A41
Mark Waters - AK1
Charlie Watson - A39, B37, E37, F38
Gabrielle West - C11, H12
Michelle Wetherall - B10, C10
Leah Whiffin - A43, B40
Bruce Williams - H6
Douglas Williams - A6, B45, C2, D10, E15, F3, G18, H20
Gaye Williams - FK1, H14
Kate Williamson - D8, H9
Elizabeth Wilson - A10, F6
Neale Woods - AB-6, G37, H34

Alec Young - A18, F14

Elena Zema - B32, C32
Natasha Ziebell - C17