

2012
Annual
Conference



David Bedford

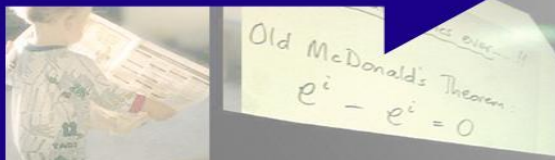
Paul Andrews

Bob Burn

Marcus Du Sautoy

Learning from Others

10-12 April
Keele University



About the Sessions and Speakers

P = Primary, S = Secondary, P16 = Post-16, T = Tertiary, G = General

Name: David Acheson

Aimed at: G

Title: Surprising Connections

Abstract: Some of the greatest moments in mathematics are when unexpected connections are found between completely different parts of the subject. I will discuss, briefly, lots of examples, ranging from primary level to a proof of an infinite series using fluid mechanics.

About the speaker: David Acheson writes and lectures on maths for the general public, and is the author of 1089 and All That. He was the Mathematical Association's President for 2010 - 11.

Name: James Afolayan (Texas Instruments)

Aimed at: S, P16, G

Title: Learning from others with ICT

Abstract: This session will explore a range of ways in which TI-Nspire technology can be used in the mathematics classroom to help students learn from one another

About the speaker: James Afolayan is a secondary maths teacher at Bacon's College, London

Name: Lara Alcock

Aimed at: P16 T

Title: Drawing graphs: Skills for making the transition to undergraduate mathematics

Abstract: In this session, participants will collaboratively construct diagrams to represent general statements about functions and will discuss qualities that a good diagram should have. The presenters will relate this experience to a research study investigating students' productions of such diagrams.

About the speaker: Lara Alcock teaches mathematics and mathematics education at Loughborough University. She conducts research on students' thinking in undergraduate mathematics, with a focus on comprehension and construction of proofs and definitions.

Name: Farzana Aslam

Aimed at: S P16

Title: Facilitating Transition of students from GCSE to A-Level Mathematics

Abstract: The session will showcase the activities for secondary and post -16 students in order to facilitate the Transition of students from GCSE to A-level mathematics . I will highlight the learning outcomes achieved and collaborations between ourselves and different institutions.

About the speaker: Farzana Aslam is currently working as Senior Lecturer at Coventry University. Prior to this she worked in the More Maths Grads as subject Coordinator at Coventry University. Prior to this she has also worked as research associate in the Widening Participation and Outreach Programme of the Faculty of Engineering and Physical Sciences at the University of Manchester. Farzana is also an active researcher in Physics and Applied Mathematics.

Name: Jenni Back

Aimed at: P S G

Title: *Learning from Hungary: Exploring tensions between mathematics and approaches to teaching and learning in English and Hungarian classrooms*

Abstract: We will look at video clips from English and Hungarian classrooms and some practical resources from both settings to examine some approaches to teaching and learning and explore some tensions between the mathematics and classroom practice. We will discuss how to make use of our observations in our classrooms.

About the speaker: To follow

Name: Danny Brown co presenter Steven Alcorn

Aimed at: P S G

Title: *Thinking on your feet.*

Abstract: Do you have trouble sitting still? Or, more likely, you teach people who do? This is the session for you. We are going to do some maths on the move, hopefully have some fun, and maybe even gain some ideas for use in the secondary school classroom.

About the speaker: Danny is a teacher in a London secondary school who likes to experiment with new and interesting ways to teach.

Name: Douglas Butler

Aimed at: S P16 T G

Title: *Best of the Web on computers and mobiles*

Abstract: A tour through the collection of web-based resources on www.tsm-resources.com, including web broadcasting, apps for mobile devices (phones and pads), great sets of data and images.

Name: Douglas Butler

Aimed at: S P16 T G

Title: *Autograph for 11 - 16*

Abstract: Brief description of session (up to 50 words):

A series of tried and tested lesson plans using Autograph at KS3 and KS4, focussing on transformations, linear and quadratic equations, and data handling.

www.tsm-resources.com/autograph.

Name: Douglas Butler

Aimed at: S P16 T G

Title: *Autograph for 16-19*

Abstract: A series of tried and tested lesson plans using Autograph at KS5, focusing on sound methods to introduce calculus, advanced trigonometry, vectors (2D and 3D) and probability.

www.tsm-resources.com/autograph.

About the speaker: Teacher, teacher-trainer (TSM), software developer, collector of web resources.

Name: Tom Button

Aimed at: P16

Title: *Using ICT in A-level Maths: effective tasks*

Abstract: MEI is developing support materials for using ICT in A-level Mathematics. A variety of student-centred and teacher-centred tasks will be demonstrated with opportunities to try the tasks and take some resources away. There will also be a discussion about how to integrate effective tasks into a scheme of work.

About the speaker: Tom Button is Student Support Leader for the Further Mathematics Support Programme. In addition to this he has a keen interest in the use of ICT for the teaching and learning of mathematics and has written software and presents professional development courses on the use of ICT.

Name: Alan Catley

Aimed at: S P16 T

Title: *Autograph in the Classroom - Shape, Space and Measures*

Abstract: This session will focus on a selection of approaches to enhance the teaching and learning of geometry. From transformations and circle properties through to 3D Vectors the dynamic features of Autograph is the ideal classroom tool - come and see why!

Name: Alan Catley

Aimed at: S P16 T

Title: *Autograph in the Classroom - Algebra and Calculus*

Abstract: I have been using Autograph to support teaching and learning for over 10 years. This session will focus on a selection of approaches to enhance the teaching and learning of algebra, graphing and calculus. From KS3 through to more advanced calculus the dynamic features of Autograph make it the ideal classroom tool – come and see why!

Name: Alan Catley

Aimed at: S P16 T

Title: *Autograph in the Classroom - Data Handling and Statistics*

Abstract: This session will focus on the interactive use of real data to enhance the teaching and learning of statistics. From basic data handling to more advanced probability distributions the dynamic features of Autograph make it the ideal classroom tool - come and see why!

About the speaker: Alan recently completed 30 years of teaching in the North East of England. For the last 6 years he has been mixing teaching with working closely to support teachers around the UK and abroad - developing many ideas that make effective use of computer technology to enhance ‘traditional’ teaching at all levels of mathematics.

Name: Steve Chinn

Aimed at: P S P16 T G

Title: *So, what about the bottom quartile of learners?*

Abstract: The core data for this session was collected by Steve over a period of 2 years from over 2500 pupils and adults from over 50 schools and colleges around the UK as he set up a norm-referenced test. An analysis of the results will be presented, providing information about performance levels in basic maths for children and adults.

About the speaker: 40 years experience as a teacher and Head, Steve has researched and written about dyslexia and maths, dyscalculia and maths learning difficulties. He lectures across the UK and worldwide. His new book on diagnosis/assessment of maths LD will be published in April

Name: Alison Clark-Wilson

Aimed at: S P16

Title: *Digital technologies in secondary mathematics – how do they do it in other countries?*

Abstract: The recently published JMC report Digital technologies and mathematics education made a series of recommendations concerning the need to develop pupils’ access to and uses of technology within their secondary mathematics educational experience. This session will provide an insight into approaches that have been developed in a number of other countries as a means to inform the debate about how the mathematics curriculum and its assessment in the 21st century.

About the speaker: Alison is a principal lecturer in mathematics education at the University of Chichester (UoC) where she coordinates the work of The Mathematics Centre, a curriculum and teacher development and research centre. Alison was a member of the JMC working group that investigated digital technologies and mathematics education and was an editor of the final report alongside Professors Adrian Oldknow and Ros Sutherland.

Name: David Crawford

Aimed at: P S P16 T G

Title: *Magical Mathematics*

Abstract: In this session I will present a number of mathematical tricks suitable for use in the classroom to grab attention or to act as a starting point for mathematical investigation. Bring a pen and paper (and a calculator) and prepare to get involved.

About the speaker: David is Head of Maths in an independent school in Leicester where he has taught for the last 15 years. He regularly gives conference sessions and masterclasses on mathematical tricks. As well as involvement with the MA, David is also involved with UKMT setting questions and marking Olympiads.

Name: Stella Dudzic

Aimed at: S P16 T G

Title: *Real Statistics*

Abstract: This session will look at some real applications of GCSE and A Level Statistical Techniques. The focus will be on gaining insight from data. It will be assumed that participants are comfortable with the statistical content of GCSE Mathematics.

About the speaker: Stella Dudzic is MEI's programme leader for curriculum and the author of the MEI S1 and S2 revision guides. Prior to working for MEI, she worked as a teacher of mathematics in secondary schools for 22 years, including 9 years as head of department.

Name: Richard Earl

Aimed at: P16 T G

Title: *A Low Bit-rate Introduction to Information Theory*

Abstract: How much information is there in being told the roll of a die or the colour of a person's eyes? A mathematical theory of information dates to Shannon's seminal 1948 paper. Shannon entropy measures how much information is being conveyed (e.g. by a person speaking) and is a bound to just how quickly that information can be encoded and transmitted. This is an introductory talk that requires no previous knowledge.

About the speaker: Richard Earl is currently the Director of Undergraduate Studies in the Mathematics Department, Oxford University and a Tutor in Worcester College. He was formerly the Admissions Coordinator and Schools Liaison Officer in the Department.

Name: Rob Eastaway

Aimed at: G

Title: *The Hidden Mathematics of Sport*

Abstract: With the Olympics looming, sport has become the most relevant topic in maths. Why should a shot-putter head for Mexico? Why should the referee have KNOWN that Lampard's shot went in against Germany? And when you're down the pub, should you really aim your dart at treble 20? All this and more in a talk that has something for everyone.

About the speaker: Rob Eastaway is the author or co-author of several books including the bestselling "Maths for Mums and Dads" and "Why do Buses Come in Threes?". He is Director of Maths Inspiration, and regularly appears on radio to talk about the maths of everyday life.

Name: Michael Fox

Aimed at:

Title: *Surprising Stacks of Bottles*

Abstract: Some stacks of bottles have unexpected properties that can be proved with GCSE maths. This workshop session shows how. The topic is useful enrichment material and is far more interesting than doing yet more text-book questions. (It is based on a conference talk given a few years ago.)

About the speaker: Michael Fox is a former secondary school maths teacher and a regular contributor to the MA Conferences.

Name: Jenny Gage

Aimed at: S

Title: stemNRICH

Abstract: On stemNRICH, we have a growing collection of problems which root maths in other STEM subjects, helping students to see why maths is so important, and how it links with what they do in science and design technology. In this session, we will try out some resources, and, drawing on good practice developed at the STEM Teacher Inspiration days, think about how to encourage STEM thinking in schools.

About the speaker: Jenny Gage co-ordinates the Clothworkers funded STEM project for NRICH

Name: Tony Gardiner

Aimed at: P S P16

Title: 'Let's write a textbook': learning from others

Abstract: Brief description of session (up to 50 words):

What makes a textbook liberating and refreshing - for both the teacher and the pupils? This session will look at some examples and then present participants with a detailed curriculum covering a year-group of their choice (age 5-16) and invite them to devise an outline plan, with rough notes, for a chapter or group of chapters in a potential textbook for that year-group.

About the speaker: Tony Gardiner has spent 40+ years trying to bridge the gulf between mathematics and schools.

Name: Jennie Golding with Lynne McClure

Aimed at: G

Title: TBA

Abstract: During 2010-2011 The Advisory Committee for Mathematics Education consulted widely and produced two reports on Mathematical Needs, aiming to influence policy. One is about workplace and higher education needs; the other is about learners' needs. We shall outline the main messages in the reports and discuss the implications for all teachers of mathematics and their institutions.

About the speakers: Jennie and Lynne are both members of the 8-strong Advisory Committee for Mathematics Education. Jennie is an Advanced Skills Teacher in the South-West; Lynne directs the NRICH project in Cambridge (nrich.maths.org). Both have worked throughout the age range in mathematics education, and in teacher education, in this country and internationally.

Name: Jennie Golding

Aimed at: G

Title: Murder Most Mathematical

Abstract: A 'murder mystery' is a format for revision or synthesis of ideas, and can be engaging for learners of any age. Experience a short murder mystery based on level 5 mathematics, write one in a group (template provided), and take away a selection of ready-made and session-produced materials. Bring a laptop if you can.

About the speaker: Jennie is an Advanced Skills Teacher in the South-West. She has taught learners aged 3-93, and teachers at various stages of their careers, in this country and internationally. She is a member of ACME, the Advisory Committee for Mathematics.

Name: Christopher Hallion

Aimed at: P

Title: My 6 Favourite Key Stage 2 Maths Lessons

Abstract: A selection of number, shape and space and problem solving lessons suitable for Key Stage 2 children. Including a new number pattern described by David Wells as 'simple but elegant'.

About the speaker: Christopher Hallion is a primary teacher with 25 years experience in the classroom. He enjoys teaching maths across the junior age range particularly number patterns, which will feature in the session.

Name: Ray Huntley

Aimed at: P S G

Title: Classroom Mathematical Examples – Open Or Closed Case?

Abstract: Many teachers enjoy mathematics teaching but don't often stop to explore tasks for themselves. This session introduces a number of short mathematical explorations to work on and discuss, with no assumptions that they will be used in the classroom (although they might!!).

About the speaker: Ray Huntley has worked as a teacher in primary and secondary schools in the UK and Australia. He is passionate about mathematics teaching and learning and enjoys solving problems as well as teaching budding mathematicians of all ages!

Name: Andrew Jeffrey & others

Aimed at: P

Title: ...And Maths

Abstract: The MA and ATM Primary Working Group has been working together on a project entitled '...And Maths'. The vision was to produce a book of truly cross-curricular ideas, rather than maths lessons with 'a bit of art/history etc.' The result of their work is a fabulous resource, jointly published by the MA and the ATM. In this session members of the group will discuss the finished project, and demonstrate some of the great ways in which maths can be effectively integrated into all areas of the Key Stage 2 curriculum. There will be a chance to try out and discuss the various activities.

About the speaker: The session will be delivered by members of the MA/ATM working group, all of whom have contributed to the project in some way.

Name: Andrew Jeffrey & others

Aimed at: P

Title: Turning The Tables

Abstract: Teaching multiplication facts to primary children has always been as vital as it is tricky. In this session the MA and ATM Primary Working Group have collated some of their favourite ideas to make this task a pleasure rather than a pain. Delegates will leave with a reminder of old but effective strategies, as well as some exciting additions to their arsenal.

About the speakers: The session will be delivered by members of the MA/ATM working group, all of whom have contributed to the project in some way.

Name: Jane Jones HMI

Aimed at: P

Title: Learning from others: good practice in primary mathematics

Abstract: This session will consider the findings of Ofsted's report, *Good practice in primary mathematics*, and what might be learnt from the schools' effective ways of building pupil's secure knowledge, skills and understanding of number so that they demonstrate fluency in calculating, solving problems and reasoning about number.

About the speaker: As National Adviser for Mathematics, Jane leads Ofsted's curriculum and dissemination work in mathematics. This role includes provision of advice on matters mathematical, managing Ofsted's annual programme of mathematics inspections in primary and secondary schools, reporting on and disseminating the findings. Prior to her appointment to HMI, she taught and led mathematics in a range of schools and was a senior GCSE examiner.

Name: Alison Kiddle

Aimed at: S P16

Title: NRICH

Abstract: Since the last annual conference, the NRICH team have trialled and developed activities with extensive support for teachers. Come and share our latest offerings, many of them 'low threshold, high ceiling'.

About the speaker: Alison works across the secondary phase and post-16 and co-ordinates the KS4 activities for NRICH.

Name: Emma Low

Aimed at: P S

Title: Paper Windmills

Abstract: Practical collaborative session exploring one way to give purpose to developing accuracy in measurement, understanding of shapes and angles, multiplication, division, handling data and maybe more. Most appropriate for KS2 and KS3.

About the speaker: Emma is a mathematics teacher, writer and consultant. She inspires teachers and children through engaging activities and contexts, and creative use of resources. Emma specialises in supporting teachers with practical classroom ideas, including the uses of ICT in mathematics, developing intervention strategies, and encouraging collaboration and reasoning.

Name: Adam McBride

Aimed at: S P16 T G

Title: To be announced

Abstract: To be announced

About the speaker: Past President of the MA and of the Edinburgh Mathematical Society. Past Chairman of the Scottish Mathematical Council and the British Mathematical Olympiad Committee. Currently Chair of MA Council and Treasurer (formerly Vice-Chairman) of the United Kingdom Mathematics Trust. And from 01/10/11 Adam became Emeritus Professor.

Name: Lynne McClure

Aimed at: P

Title: NRICH

Abstract: Since the last annual conference, the NRICH team have trialled and developed activities with extensive support for teachers, including some for the Early years. Come and share our latest offerings, many of them 'low threshold, high ceiling'.

About the speaker: Lynne directs the NRICH project and the University of Cambridge.

Name: Mark McCourt

Aimed at: P, S, P16, T, G

Title: iPad in the mathematics classroom

Abstract: Touch technology is what mathematics education has been waiting for – it breaks down the barriers to using technology in the mathematics classroom because it is intuitive, portable and easy to maintain. A hands-on workshop exploring a set of mathematics apps. iPads will be provided so that all delegates are able to engage with the software.

About the speaker: Mark McCourt was formerly Senior Director at Tribal, an international education and technology company, Director at NCETM, school leader, AST and inspector. He now works with a range of organisations worldwide on innovative technology solutions for education and teacher professional learning. Mark owns the website emaths.co.uk and tweets as EmathsUK.

Name: Peter McOwan

Aimed at: G

Title: The Magic of Maths

Abstract: Magic helps make maths exciting and drives student curiosity. Come along and learn some fascinating tricks you can easily perform and discover the maths behind them.

About the speaker: Peter McOwan is currently a Professor of Computer Science School of Electronic Engineering and Computer Science at Queen Mary, University of London. He researches in visual perception and biologically inspired hardware and software. He is also active in science outreach through various projects such as [cs4fn](http://www.cs4fn.org) (www.cs4fn.org) and [Sodarace](http://www.sodarace.net) (www.sodarace.net).

Name: Mike Ollerton

Aimed at: P S

Title: *Learning with others*

Abstract: Access and extension This will be a 'traditional' workshop where delegates are invited to work on problems which are intended to be accessible and extendible. Towards the end of the second session we shall discuss what the implications are for adapting/weaving any of the tasks into KS2 to KS4 classrooms.

About the speaker: Mike has spent 24 years in classrooms, 10 years in ITE, 6 years freelancing and continues to be passionate about making mathematics accessible and extendible.

Name: Jenny Orton with co-presenters Bernard Murphy, Nathan Ngaiah, Nadia Dellagana, Anne Baker, Anna Foreman

Aimed at: P16

Title: *Meet the Hookers*

Abstract: Since it re-invented itself in September 2011, the Post-16 subcommittee has been producing some Hooks – images, photos, diagrams, anything really – with which to engage or intrigue or challenge (or preferably all three) A level / Higher students. We'd like to share the first few, along with some feedback from their initial trialling and get you hooked on writing some yourselves.

About the speaker: This session arises out of work with the new Post-16 subcommittee, and various members of the committee will be presenting elements from this our latest project and encouraging audience participation! Jenny Orton is chairing the committee.

Name: Chris Pritchard

Aimed at: S P16 T G

Title: *Spinning Pegs and Complementary Areas*

Abstract: This is a third presentation in a series on area, with elementary ideas suitable for Year 7 to serious investigations for senior students. We will explore situations that will feature in articles in *Mathematics in School* in the coming months, a mixture of geometry, mensuration and algebra, accessible to all delegates at some level.

About the speaker: Chris Pritchard is the Chair of the MA's Teaching Committee and one of the editors of *Mathematics in School*. He is the author of well over a hundred articles for mathematics teachers and the editor of *The Changing Shape of Geometry*.

Name: Peter Ransom

Aimed at: S P16 G

Title: *How's it hanging IKB?*

Abstract: Presented by Isambard Kingdom Brunel (aka Peter), the person who was voted second in the Greatest Briton poll of 2002. This workshop deals with IKB's engineering works, combining all the STEM subjects. After a mental geometry starter we will use hand held wireless technology to explore the properties of a hanging chain. There will be lots of classroom activities illustrated with some of IKB's original calculations. Attendees will receive a CD-ROM packed with things that can be used in any educational environment where cross-curricular mathematical work is encouraged.

About the speaker: Peter joined the MA in 1980 and takes risks. He left the chalk/whiteboard/IWB-face recently to do freelance consultancy, part-time work at Bath Spa University and grandson-sit. He spends many Saturdays doing mathematics masterclasses in period costume. He was not arrested on the tube carrying a sword and cannonball in 2006.

Name: Rachael Read

Aimed at: S P16

Title: *A Whistlestop Tour of Ideas in Number and Algebra*

Abstract: During the session we will try out a wealth of resources developed to encourage pupils to engage and enjoy their maths lessons; with the emphasis on problem solving and collaboration. Every

attendee is free to receive as many of the resources and ideas for themselves as they wish - just bring a large memory stick in a stamped addressed envelope!

Name: Rachael Read

Aimed at: S P16

Title: Problem Solving Cards

Abstract: During this session we will firstly try out a selection of problem solving cards of varying topics and levels. These activities require students to work in small groups, read through a set of clues to solve an ultimate problem. Having tried some of these activities we will look at how to design our own and indeed attempt to do this in order to share our resources.

Name: Rachael Read

Aimed at: S

Title: Heads of Department Idea Swap

Abstract: Predominantly a chance for Heads of Department, new or old to the post, to share ideas, woes and worries. Having problems organising your department, got some good intervention strategies or just need a good moan about your SLT and exam boards? Struggling with the idea that all those modular schemes of work are heading for the rubbish bin? Well this is the session for you! An informal session to discuss issues facing Heads of Department and to voice your ideas on how the MA can help!

About the speaker: At 14 Rachael was teaching in France, at 18 in Hong Kong and at 20 in Spain. She has taught in a large comprehensive in Saffron Walden, and in a boys' grammar in Chelmsford, as Head of Department and an AST. Rachael is now Head of Maths and Assistant Head at Mount Grace School, Potters Bar. Rachael is also Chair the 11 – 16 sub-committee of the MA.

Name: Bill Richardson

Aimed at: P S P16 T G

Title: First-timers' Forum

Abstract: This session will provide an opportunity to uncover and find out how an MA conference works. A chance to ask and discuss.

About the speaker: Bill is a long time MA member and has been to many conferences but he can still remember the excitement of his first one!

Name: Tony Robin

Aimed at: P S P16 T G

Title: The year of the Olympic Games, so an analysis of some simple Games

Abstract: Consider some two-person games which can be easily analysed. Bring along your scientific calculator, see how to use a facility, which you may never have used. Consider how lawyers can make a living, the Prisoner's Dilemma, as well as the best strategies for robbers and guards.

About the speaker: Tony Robin was a teacher of mathematics and Head of Department at a Secondary School. Semi-retired he marks A-level papers a few times per year. A regular attender at MA conferences.

Name: Paul Shepherd

Aimed at: S(older) P16 T G

Title: How Maths Built The Olympic Stadium

Abstract: Maths is playing a critical part in the design and construction of the stunning venues being built for London 2012. This talk shares the secrets behind the building of the Olympic Park and explores the practical ways that mathematics is being used in the construction and operation of this spectacular event.

About the speaker: Paul is Research Fellow in the Architecture and Civil Engineering Department at the University of Bath. He has worked with leading architects such as Frank Gehry and Richard Rogers, designing a wide range of structures from sewage tanks to international stadiums.

Name: Lydia Showan

Aimed at: tba

Title: Introduction to the National STEM Centre

Abstract: The National STEM Centre is home to the UK's largest resource collections for STEM subjects ages 5-19. Come along to investigate:

- a treasure chest of inspirational resources, including hands-on kit
- how our online community can support your school/college and networks
- where to look for wider STEM support

About the speaker: Lydia Showan is the mathematics specialist at the National STEM Centre. Her background is secondary mathematics education, as a subject leader and assistant headteacher, and mathematics consultancy.

Name: Ben Sparks

Aimed at: S, P16, T, G

Title: Pretty Irrational

Abstract: Numbers. The Greeks had them all sorted - lovely rational numbers that made sense. Failing to 'learn from others' (Hippasus?) meant they initially ignored the non-rationals. But irrational and transcendental numbers are now non-controversial... or are they? One number in particular might claim the title of Most Irrationally Pretty. Come and see why.

About the speaker: Ben Sparks works part-time at Canford School in Dorset, part-time for the Further Maths Support Programme – delivering maths enrichment, and part-time as a freelance maths speaker. He dabbles in music and photography and can occasionally be found busking in city centres. He says it keeps him off the streets.

Name: Lloyd Stagg

Aimed at: S, P16, G

Title: Animation, iteration and tool making with dynamic geometry software

Abstract: Dynamic geometry software replaces "compass and ruler" to provide a powerful avenue for easy examination of classic geometric phenomena like Euler's Line. It facilitates exploration of geometric design and creativity. Dynamic geometry's capacity to animate, iterate and create tools enhances this software's power as a teaching and learning resource.

About the speaker: Over thirty years teaching secondary school mathematics in Victoria, Australia, Lloyd has maintained a passion for enhancing his teaching with learning technologies. These have included spreadsheet and database, Turtle LOGO, graphing calculators and now dynamic geometry using Geometer Sketch Pad. Lloyd considers GSP to be an amazing piece of mathematical software.

Name: Andrew Taylor

Aimed at: S P16 G

Title: Developments in mathematics assessment

Abstract: A look at the emerging qualification landscape in mathematics, considering changes in GCSE structures, the implications of the national curriculum review and widening participation in post 16 mathematics.

About the speaker: Andrew Taylor is Head of mathematics at AQA, the largest provider of general qualifications in England. He is responsible for the development and support of all AQA's mathematics and related specifications from Entry 1 functional skills to A-level further mathematics.

Name: Sidney Tyrrell

Aimed at: S P16 T G

Title: 'Stats ideas' - ideas for teaching statistical concepts

Abstract: Simple practical ideas which I have found helpful for teaching statistical concepts to students who find statistics boring, hard or both. Take away ideas together with a disk with resources to use, links to web based resources, useful real data sets, and DIY investigations using Excel.

About the speaker: Sidney Tyrrell is an Honorary Teaching Fellow at Coventry University, engaged in outreach work to schools. A National Teaching Fellow she taught statistics to undergraduates for many years from mathematicians to nurses and town planners, and enjoyed the challenge of making stats interesting and sensible, which it is.