



Newsletter title

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National News

Each pilot region has now established connections with partner schools as well as working with the local National Centre for Excellence in Teaching Mathematics, Connexions Careers Services and Local Education Authorities. They are building close links with local employers.

The more maths grads Advisory Group met in November 2007. In addition to the sponsoring bodies, there was participation by many associated organisations and groups, including the Advisory Committee on Mathematics Education, Action on Access, Connexions, Specialist Schools and Academies Trust and STEMNET, as well as other HEFCE-funded projects in physics and engineering.

Plans for the more maths grads Employers' Forum, to develop and facilitate links with and participation by employers, were progressed and it is expected that this group will be formed shortly.

There was a lively discussion following exciting presentations by Farzana Aslam (Coventry) and David Arrowsmith (QMUL) on the work to date and future plans in their regions, working with schools, teachers, pupils and employers.

The Advisory Group was delighted to hear of the progress since its summer meeting, congratulating all those involved in the Project.

more maths grads is working closely with the mathscareers website to share resources between the projects and raise awareness of each. For more on careers, see www.mathscareers.org.uk

Boring! Boring!

Introductory message from Makhan Singh, more maths grads project manager



"Boring! Boring!" These were the words of a year 9 group of pupils that echoed in my ears last year when entering a maths lesson.

My first task was staring me plainly in the face – to win the hearts and minds of this class and only then could I actually begin what I refer to as the 'teaching bit'!

I'm delighted to be on board this important project. This project is a major opportunity to harness all our knowledge and life experiences to bring about the change required to ensure we have enough maths grads in the future.

I have a varied background, from project engineering manager for blue chip companies such as Land Rover and Wagon

Group to working as a psychotherapist. I have spent the last five years working in education, mainly as an engineering educationalist on the government funded project 'N-Gen West Midlands', encouraging young people to become engineers. I have also worked in schools as a maths and psychology supply teacher. And last year, I even worked in the Bollywood film industry, producing a short film with a BAFTA winning director.

Hopefully all these experiences will come into play in project managing **more maths grads**. I'm hoping we can empower the young people, parents, teachers and careers advisers who we come across over the next few years to understand that maths is more than just numbers. Maths is an essential tool to help us manufacture our dreams – whatever these dreams may be.

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Dates for the Diary 2008

26
JAN

Careers event at Coventry Transport Museum (with Connexions).

21
FEB

Improving A-level standards in Mathematics workshop in Warwickshire.

22
FEB

Secondary Mathematics Conference (Mathematical Association and NCETM).

2 APR - 5 APR

more maths grads session at the Mathematical Association and Association of Teachers of Mathematics combined conference in Keele.

10
APR

Yorkshire & Humberside Codes and Ciphers Workshop for National Science Week.

9 JUN & 26 JUN

"Science, HE and beyond for school careers advisers" event organised by Royal Society of Chemistry, Science Council, UCAS.

29 JUN - 4 JUL

Session at European Consortium for Mathematics in Industry 2008 conference in London.

More National News



New Year drinks reception

more maths grads hosted a New Year Drinks Reception in conjunction with the Mathematics Promoters Network. This was an opportunity to welcome in the new year and also to introduce Makhan to the mathematics community and its contacts. The event was held at De Morgan House in London.

The Nuffield Foundation has agreed to work with the **more maths grads** pilots in its Schools and Colleges Bursaries Scheme. This funds work placements for A-level students in the summer vacation. Projects run for four to six weeks students receive a £75 a week bursary.

East London Roundup

The London East team has set up links with schools in four London boroughs.

range of careers and to schedule events at several schools.

These areas contain a wide variety of people from many cultures and traditions. The teachers are working extremely hard under a great deal of pressure, and turnover of staff in some schools is high. Despite this, there is a lot of support for our work.

In Hackney we have strong links with two very different institutions: the major sixth form education provider BSix (Brooke House Sixth Form College) and a new city academy, the Bridge Academy. We are involved in a Year 7 project with students at the academy where we hope to kindle interest in geometry and dynamics by linking tessellations and symmetry to the work of web designers and professional artists.

In Tower Hamlets and Newham the schools we work with have a high proportion of students from Bangladeshi, Indian, Pakistani and backgrounds. Students' families often encourage them to become doctors, so they take three sciences and maths at AS-level then drop maths for the final year. We are keen for students to see why maths is needed and that it is worthwhile to study maths in its own right.

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In Barking and Dagenham many students come from white, working-class backgrounds. We are working with the borough maths consultant to talk to students about how maths is used in a broad



Vivien talking to pupils in Tower Hamlets

more maths grads

West Midlands Roundup

We received an enthusiastic response from 15 Coventry and Warwickshire schools. We soon realised the partnership with each school would be different as each school identified different issues affecting numbers taking mathematics. Most of the schools indicated the need for mathematics career enrichment, especially for mathematics teachers.

A workshop on Improving standards in A-Level Mathematics was held on 15 November in conjunction with LEA Coventry and Warwickshire. It was attended by 48 A-Level mathematics teachers from 14 local schools. The programme consisted of a talk from two Rolls-Royce representatives on the usefulness of mathematics, the Fun Maths Roadshow, a maths murder mystery and a session on the NCETM Portal by our regional co-ordinator.

A maths fun day was held in November at Coventry University, in conjunction with Coventry and Warwickshire SETPOINT. Attended by 129 Year 9 pupils and 15 teachers, the programme consisted of Maths Trail, Geometric Shapes by Paper Folding and Who Wants To Be a Millionaire – focusing on Percentages and Ratios. Mock university interviews were also conducted during November at two partner schools for eight pupils applying for a range of mathematical degrees.

We are establishing good contacts with leading companies including Rolls-Royce, QinetiQ, Think Tank, Lloyds TSB, KPMG, Jaguar and TGS-NOPEC.

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A teachers' event in Coventry



Some examples from Leeds' paper folding workshop

Yorkshire and Humberside Roundup

Our first task was to recruit partner schools and colleges. So we were delighted when all nine of the schools and colleges which we approached were keen to sign up to the project. We offered them a small programme of school-based enrichment, ranging from studying the geometry of paper folding with Year 7 to cracking codes and ciphers with Year 10.

Before Christmas, we held a two hour quiz with 60 gifted and talented students from Woodkirk High School. It was great to feel the buzz of the pupils solving problems in small teams and a lovely end to the autumn term.

Other schools' events include visits to the University, such as workshops on the maths of electronic music and lectures on

maths and magic. We have also scheduled three "Maths at Work" days, where pupils will take part in interactive workshops with employers.

We are now planning for the terms ahead, meeting lots of people and pursuing many interesting avenues. We are teaming up with the National Centre for Excellence in Teaching Mathematics to film videos of people using maths at work - from environmental experts to professional costume makers. And we will be talking to careers advisors about where maths can take you!

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Curriculum Development Roundup

This strand runs from Sheffield Hallam University. It started by asking first year undergraduates in the mathematical sciences here and at Coventry, Leeds and QMUL to fill in a questionnaire detailing their prior experience of mathematics, the influences that had convinced them to study it and their expectations of studying at university. Although we are still in the process of analysing the completed surveys, we were pleased that the response rate was 90% at Leeds, Coventry and SHU, although it was lower at QMUL due to the timing of the survey.

We have also begun a review of the current provision offered to undergraduates in the mathematical sciences within target universities. This focuses on curriculum, teaching, learning and assessment and support methods.

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Each newsletter will feature information about a partner organisation working with more maths grads. The first is a message from STEMNET

STEMNET (Science, Technology, Engineering and Mathematics Network) aims to ensure that more young people in the UK choose to enter science, technology, engineering and mathematics (STEM) related careers at all levels and future generations are properly informed about science and technology. It does this by making schools and colleges aware of the support available to them, linking with them through national and regional networks along with local partner organisations holding SETPOINT contracts.

STEMNET is part of the advisory group for more maths grads and in each of the pilot

areas the organisations acting as SETPOINTS are willing and ready to work with local schools to help support their activities.

STEMNET has a particular interest in promoting Maths to young people, seeing this as a fundamental building block in any STEM future as well as a crucial employability skill. It successfully managed on the innovative AIM (Achievement in Maths) project funded by the GE Foundation and encourages schools to engage with a range of Maths activities including Maths Inspiration, the UK Maths Trust, NRICH (MMP) along with many others.

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more maths grads

multiplying opportunities

For more information about the more maths grads project or for general enquiries please contact info@moremathsgrads.org.uk

For press and media queries, please contact publicity@moremathsgrads.org.uk

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