

North East Regional Newsletter

AUTUMN 2013

The National Picture

Further increases in the numbers of students taking A level Mathematics and Further Mathematics are a real cause for celebration. UK figures for summer 2013 show that:

- AS level Further Mathematics numbers are up from 20954 to 22 601, an increase of 7.9%.
- A level Further Mathematics numbers are up from 13223 to 13 821, an increase of 4.5%.
- AS level Mathematics numbers are up from 148550 to 150 787, an increase of 1.5%.
- A level Mathematics numbers are up from 85714 to 88 060, an increase of 2.7%.

Since 2003 A level Further Mathematics numbers have increased by 160% (from 5 315) and AS Further Mathematics numbers have increased by 570% (from 3 371). However, there is still work to be done. Over 30% of state-funded schools/colleges offering A level Mathematics still do not have any students studying Further Mathematics. A major focus of FMSP work in 2013-14 will be to work with those schools/colleges who are still not offering their students the chance to study Further Mathematics. This will involve providing advice & guidance, CPD, enrichment, maths promotion at KS4 and KS5, as well as tuition in Further Mathematics when required.

The FMSP will be offering various types of Further Mathematics tuition again this year. In addition to face-to-face tuition and live online tuition the FMSP is extending its series of Live Interactive Lectures for FM, see below.

Professional Development for teachers

The FMSP offers a range of professional development for mathematics teachers including:

- **Live Online Professional Development Courses (LOPD)** aim to help teachers improve their mathematics subject knowledge. These online courses are typically offered twice a year; scheduled in Autumn (Oct – Feb) and Spring (Feb – June). They offer between 5 and 10 hours contact time with an experienced tutor and are delivered to small groups of teachers allowing opportunities for interaction and discussion. Course sessions are scheduled after the school day and are recorded to enable participating teachers to revisit the content at a later date.. For further details and booking information for our **LOPD** courses see:

www.furthermaths.org.uk/teacher_area/rpd.php

- **Teaching Further Mathematics (TFM)** is an extended course starting in July and running for 14 months. Applications for the next cohort open in February 2014. TFM has the option of Masters accreditation.
- **Teaching Advanced Mathematics (TAM)** is a year-long course, with the option of Masters accreditation, for teachers wanting to develop their teaching skills at A level. Applications for TAM open in spring 2014.

Your local FMSP Area Coordinator will be arranging more professional development events in your area this year. For information about professional development please check the website www.furthermaths.org.uk/teacher_area. If you have any queries regarding the above please contact cpd@furthermaths.org.uk.

Live Interactive Lectures for Further Mathematics students

Our online lectures for Further Mathematics students will commence in October. These are designed to supplement students' independent study and/or teaching, including:

- Up to thirty hours of live online support which includes dedicated lectures and revision time.
- Access to the [Integral](#) extensive and acclaimed online resources. These have specific sections tailored to support self-study and include additional notes, additional exercises, interactive resources, multiple choice tests, exam-style questions and worked solutions.
- A moderated forum specifically for course participants.

Modules available for 2013-14 include: FP1, FP2, M1, M2, D1, D2 and S2 in Edexcel/MEI/AQA and OCR
: FP3 and M3 for Edexcel specification only

Further information and application details can be found at: <http://www.furthermaths.org.uk/lilfm.php>

Future Events

CPD:

20th September 2013: GCSE Enrichment and Enhancement, Day 2. Teesside University, Middlesbrough. (This course is full)

4th October 2013: Incorporating mathematical problem-solving alongside the regular curriculum during year 12. Venue tba.

8th October 2013: Common topics from Decision 1 and 2. St Thomas More RC Academy, North Shields.

18th October 2013: AS Core 2. St Bedes Catholic School, Lanchester, Co Durham.

28th November 2013: Mechanics 1. Middlesbrough College.

28th February 2014: Supporting students with STEP/AEA. Teesside University.

Yr10 Events:

4th December 2013: Maths and Music Lecture. Teesside University.

Yr 10 Conferences: We are hoping to arrange two conferences, one on Tyneside and one on Teesside.

Network Meeting:

13th November 2013: 16-18 Network Meeting, Newcastle University. 12.30 to 4.00pm.

Senior Maths Team Challenges:

20th November 2013: Teesside University, Middlesbrough.

27th November 2013: Northumbria University, Newcastle upon Tyne.

Entry for these is via the FMSP website.

Previous Events:

Yr 10 Team Maths Challenges:

The heat at Northumbria University attracted 23 teams from 19 schools and took place in the Great Hall in the Sutherland Building, see below.



In 3rd place was Newcastle Central High School, with Emmanuel College 2nd and Dame Allan's Boys School 1st. Presenting certificates and trophy to Dame Allan's, is Karen Wynne from the Mathematics Dept at Northumbria.



The heat at Teesside University was contested by 20 teams from 16 schools and in 3rd place was Whitby Community College, 2nd Yarm School and the winners were Stokesley School.

Below are pictures of the event at Teesside and presentation to the Stokesley team by Gary Crawley, from Teesside University.





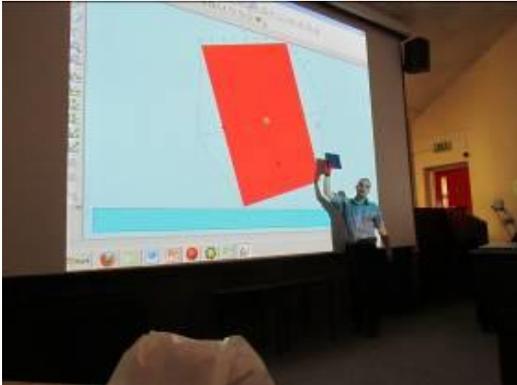
The winners from the above heats, and Yarm as highest scoring runner-up, then went forward to the Regional Final which was held at the National Railway Museum in York.
The final was won by Fulford School from York.



The Yr10 Team Challenges will take place again in March 2014.

Yr10 “Maths takes you further” Conference at Teesside University in March.

10 Schools with 150 students attended the day conference which started with a lecture from Richard Lissaman on “From Google to Games”, followed by a series of workshops showing how maths is applied in different careers, from surveying to accountancy to environmental engineering.



Yr10 Mathspllosion at the Life Science Centre in Newcastle.

120 students from 15 schools attended a day at the Life Science Centre experiencing some practical mathematics, including card tricks, helices, mazes and astro navigation in the planetarium.





Yr12/13 Senior Team Challenge Training

Schools that had not taken part in the Senior Team Challenge before, had the opportunity to have a half day problem solving session to familiarise themselves, with the style and type of question they would face. Below are students from Heworth Grange School in Gateshead taking part in this training. If your school has not taken part in this competition and would like a session to help prepare, then please contact either Barbara or Phil and we can arrange to come and deliver it in your school.



STEP Sessions for Students at Newcastle University:

Weekly sessions ran from February to June on Wednesday evenings, for students who were preparing for STEP examinations. These were attended by up to 17 students, and three teachers, and it is planned that they will be repeated next January. Thanks to Ryan Bannon who delivered the sessions and we wish him well in his new career.

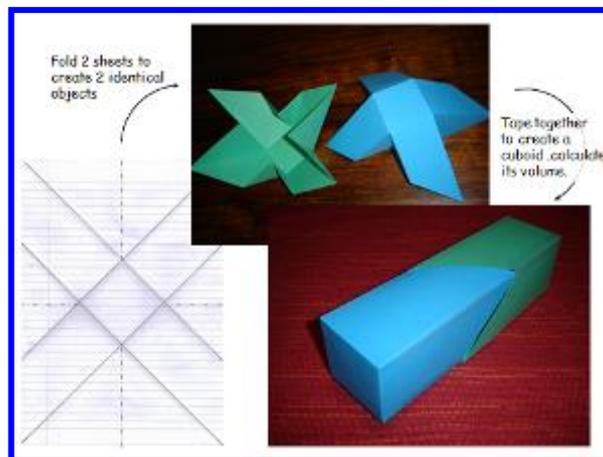
Local CPD Events:

Since March there have been local CPD Days on Problem Solving in GCSE, and Enrichment and Enhancement activities at GCSE. The latter 2 day course in Gateshead was oversubscribed and has been repeated on Teesside, again attracting more staff than we can accommodate. There have also been one day courses on FP2/3 at Hartlepool VI Form College. Many thanks to Rob Lamb for arranging the venue and to Tom Button and Sharon Tripconey for presenting the day. The one day "Introduction to AS Core 1" is being followed by a Core 2 day this term and you do not need to have attended the first day if you wish to attend.



Post 16 Network Meetings:

These have continued to grow, arranged by David Thomas and with the support of Newcastle University. The sessions have included presentations from representatives of exam boards about changes to A and AS level exams, the use of twitter and other social networking sites (John Smith from RGS), revising Core maths by folding a piece of A4 paper and how to calculate the length of a helical staircase (Jeremy Dawson).



Core Revision Days:

The day at Teesside in April was attended by 90 students preparing for the Core 2 exam. Thanks to Paul Wilson for his help on the day and Sandra Johnston and Gary Crawley from Teesside University for arranging the venue and refreshments. Due to the changes to examination timings we are not planning our usual revision day in December, but if schools would find a study day covering the same areas useful please get in touch.

Other Information:

Please contact either Phil Moxon (philmoxon@furthermaths.org.uk) or Barbara Thompson (barbarathompson@furthermaths.org.uk) if you would like more information on any of the above. We can arrange to support you and your school in a variety of ways: this year we have provided emergency tuition, in school CPD to meet a crisis and revision sessions in house.