



The National Picture

The Further Mathematics Support Programme (FMSP) are delighted to see a continuation of the year on year increases in the number of students participating in Mathematics and Further Mathematics, with entries reaching an all time high this summer. Mathematics is now the most popular subject at both AS and A level. AS Further Mathematics continues to grow in popularity, with an 8.5% increase on entries from 2012-13.

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Examination Results

In the UK, A level Mathematics entries rose from 88,060 in 2012/13 to 88,816 in 2013/14, a rise of 0.9%. A level Further Mathematics numbers rose from 13,821 to 14,028 over the same period, a 1.5% increase.

For AS level, entries in Mathematics rose from 150,787 to 161,711, an increase of 7.2%. For AS level Further Mathematics, numbers have risen by 8.5%, from 22,601 entries to 24,530.

In 2014-15, the FMSP will continue to work closely with schools and colleges, providing advice and guidance, CPD, enrichment at KS4 and KS5, as well as tuition in Further Mathematics when required.

Tuition

The FMSP offers various models of tuition to meet the needs of schools and colleges and their students. In addition to face-to-face tuition there are opportunities for **live online tuition (LOT)**, and **live interactive lectures (LIL)**. For more information about tuition, please see: www.furthermaths.org.uk/fmsp_tuition

The FMSP continues to expand problem-solving enrichment activities, including support for students in preparing for **STEP, AEA and MAT** examinations. See: www.furthermaths.org.uk/step_aea_support

Professional Development

The FMSP offers varied professional development for teachers including:

- **Live Online Professional Development (LOPD)** - courses designed to develop subject knowledge;
- **Teaching Advanced Mathematics (TAM)** - a year long course with the option of Masters accreditation;
- **Teaching Further Mathematics (TFM)** - a 15 month programme for teachers planning to teach Further Mathematics A level.

For more information about CPD opportunities, please see: www.furthermaths.org.uk/cpd

Podcasts

The first four episodes of a new enrichment podcast "Taking Maths Further" were made available prior to the summer break, with many more being released this term via: www.furthermaths.org.uk/podcasts

In each podcast Peter Rowlett and Katie Steckles tackle a mathematical theme interviewing people from the field and setting a related puzzle. Topics so far have included the mathematics used in nautical radar and the use of probability in crime scene investigation.

Professional Development

Key Stage 4 Enrichment and Extension

The Further Mathematics Support Programme has funding to provide professional development and to develop resources to support teachers in stretching and challenging Key Stage 4 students working towards the Higher Tier Mathematics GCSE (or equivalent).

This 2-day course aims to:

- Familiarise teachers with a range of new FMSP, MEI and other resources designed to extend and enrich the mathematical experiences of Higher Tier GCSE students;
- Enable teachers to develop strategies to address the challenges of working with all Higher Tier GCSE students;
- Consider how these approaches fit with the requirements of the new National Curriculum and revised GCSE examinations

Dates:

Tuxford Academy Day 1: 18th November 2014

Day 2: 4th February 2015

New College, Day 1: 4th October 2014

Leicester Day 2: 20th January 2015

Teaching and Mentoring for STEP

A one-day course aimed at teachers who are interested in furthering their skills and understanding in STEP so that they may support their students taking this paper.

Course aims:

- To provide teachers with an opportunity to think about, discuss and develop problem solving skills around STEP.
- To give teachers time to work on problems themselves to gain insight into the challenge of supporting their students.

University of Northampton November 2014

Practical Mechanics

A one-day course for teachers who are already teaching A-level mechanics or who are interested in teaching the module.

The day will begin with an introduction to M1, background to AS Further Maths and a look at the content of M1 across the 4 specifications. It will then look at practical examples of mechanics within the specifications, including Modelling and Motion, Newton's Laws and Collisions & Projectiles.

University of Nottingham 25th March



Interactive Teaching of A-level Statistics

A one-day course for teachers who are interested in teaching A-level statistics or who would like a refresher course on the material.

This course will provide participants with an overview of the topics that come up in the S1 modules across all specifications - AQA, Edexcel, OCR and OCR (MEI) - along with a range of effective teaching and learning resources.

Participants receive 12 months' access to the MEI Integral online resources for Statistics and ongoing email support from the presenter.

No previous knowledge of S1 is expected.

Loughborough University 26th March 2015

Enrichment

UKMT Senior Team Maths Challenge



The STMC is for students in years 11, 12 and 13 testing mathematical, communication and teamwork skills. Each team must consist of four Year 11, 12 or 13 students with no more than two students from Year 13.

This year the East Midlands will be hosting the following heats:

Loughborough 12th November 2014

Derby 19th November 2014

Lincoln 14th November 2014

Northampton 19th November 2014

Nottingham 26th November 2014

Oxford Entrance Exam Preparation Day

Please follow the link via the FMSP web pages to reserve your space.

The University of Nottingham will be running an intensive one-day preparation course for the Oxford Maths Entrance Test (which is taken in November).

The course will help students increase their depth of mathematical understanding and so gain confidence in attempting questions asked in a university entrance test.

“Suspense”

University of Nottingham 11th October 2014

‘Suspense’ is an exciting FREE KS4 event, to discover maths in the world around us.

The event is open to all schools and their Year 10 pupils. The aim of this enrichment activity is to encourage year 10 students to see the breadth and diversity of careers offered when Mathematics is taken beyond GCSE.

Sixth Form Problem Solving Day

This event is aimed at students and teachers looking at problem solving skills in their sixth form mathematics courses. It will be particularly useful for students who are considering going on to a Maths related degree.

Students will attend several workshops based on different aspects of problem solving, whilst teachers will be given the opportunity to attend CPD-style sessions to enable teachers to develop ways of helping their student’s develop their problem solving skills.

University of Nottingham 10th December 2014

Celebrating Women in Mathematics

Following our hugely successful KS4 event last year, the University of Nottingham will be hosting another engaging enrichment day for KS4 pupils to celebrate women in mathematics.

There will be several workshops presented by leading female mathematicians from the UK and also current maths undergraduates.

Bookings will be open after Christmas. Please see our regional FMSP pages for more details:

STEP Open Evening

Loughborough University 11th March 2015

This event will be a very informal Open Evening for students, parents and teachers to find out about the STEP and AEA exams.

Some questions will consider are:

- What are the STEP and AEA exams for?
- When/Why do students need to take a STEP exam?
- Should students take up special coaching to prepare for these exams?
- How will students benefit from preparation sessions?
- As a teacher, can I help my students?

University of Nottingham 8th October 2014

Other News and Events

STEP Course

This 10-week STEP/AEA preparation course is designed for students currently in Year 13 who are going to take STEP or AEA papers in the Summer exam period.

The course will be run on Saturday mornings 9:30am – 12:30pm.

University of Northampton start date **7th Feb 2015**

Senior Team Maths Challenge Team

This training event is aimed at schools/colleges relatively new to the competition or wanting to improve their performance. They have been designed to help prepare students who have little experience of the type of questions asked in the competition.

- Become familiar with the rules of the competition
- Gain confidence in approaching each round
- Work as part of a team
- Develop problem solving skills

Bosworth Academy **8th November 2014**

“Maths Feast”

This is the new styled Year 10 Maths Challenge for 2015. Teams of four Year 10 students are invited to take part in this fun and engaging maths experience. This event will consist of a number of rounds, for which there will be individual prizes awarded in various categories.

There will be six venues for this event:

Corby, Lincoln, Loughborough, Northampton, Nottingham

Events will be held in March 2015.

Changes in Staffing

We are pleased to welcome our new AC for Lincolnshire, **Alan Barker** (below, left) and also our temporary AC for Nottinghamshire/ Derbyshire, **Kathryn Brierley** (below, right) who is covering for Ria Symonds whilst she takes maternity leave.



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East Midlands Events page:

For teachers:
www.furthermaths.org.uk/EM_CPD

For students:
www.furthermaths.org.uk/EM_enrichment

