

**FURTHER
MATHEMATICS
SUPPORT
PROGRAMME**

**SUPPORT FOR
SCHOOLS AND
COLLEGES**



The Further Mathematics Support Programme

Working with mathematics departments to provide increased opportunities for students and teachers in GCSE Mathematics, A level Mathematics and Further Mathematics





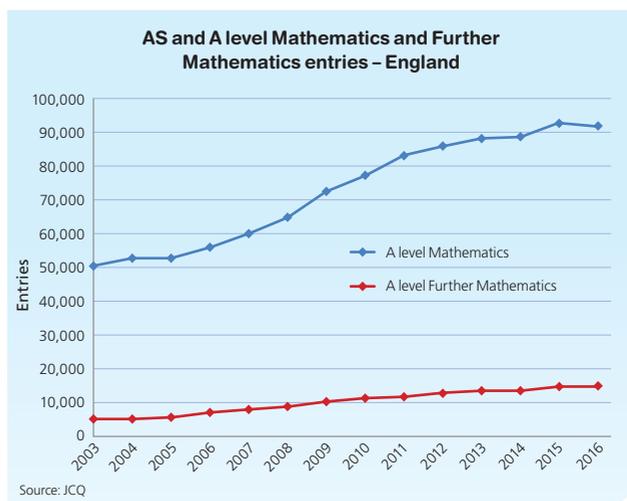
Registering with the FMSP is free and gives your school/college a staff login to the extensive Integral resources for teaching Further Mathematics.

Who we are

The Further Mathematics Support Programme (FMSP) is a government-funded initiative managed by Mathematics in Education and Industry (MEI), an independent charity.

What we do

The FMSP works directly with students and teachers in state-funded schools and colleges in England to promote the study of AS and A level Mathematics and Further Mathematics. Our aim is to increase the uptake of AS and A level Mathematics and Further Mathematics and to ensure that more students, particularly girls, are able to realise their full potential in mathematics.



The number of students studying A level Mathematics and Further Mathematics has increased dramatically since 2005

The FMSP has over 30 Area Coordinators, based all over England, who work with schools and colleges in their region. The Area Coordinators support the provision of GCSE and AS and A level Mathematics and Further Mathematics, providing professional development, information and guidance for teachers and promoting the study of mathematics to students.

You can find the name and contact details of your local Area Coordinator by going to our website:
furthermaths.org.uk/regions



Studying Further Maths is an excellent experience, introducing me to some more interesting mathematics, and learning more advanced calculus has also made my regular maths stronger.

*Further Mathematics student
Easthampstead Park School,
Bracknell*

How does the FMSP support A level Mathematics and Further Mathematics?

The FMSP:

- promotes the study of AS and A level Mathematics and Further Mathematics to students in Key Stage 4
- provides extensive free resources for teaching Further Mathematics and the applied content of A level Mathematics, as well as resources for developing problem solving
- ensures all students can access tuition for AS and A level Further Mathematics
- supports schools and colleges to teach AS and A level Further Mathematics
- offers support to students and teachers for qualifications such as STEP (*Sixth Term Examination Paper*), AEA (*Advanced Extension Award*), TMUA (*Test of Mathematics for University Admission*) and the MAT (*Mathematics Admissions Test*)





FMSP Live Interactive Lectures were arranged for mechanics and additional support for revision was given.

Lipson Academy Devon



The tuition sessions were very effective, the format and support was outstanding.

Mayflower High Billericay

What resources are available to support the teaching of Further Mathematics?

The FMSP provides a wide range of resources to support students and teachers:

- When a school or college registers with the FMSP they are given a staff password that gives free access to Integral online resources. This provides extensive teaching and learning resources for Further Mathematics and the applied content of A level Mathematics, as well as access to a range of materials to support GCSE Mathematics and problem solving.
- The FMSP website has resources for problem solving at GCSE and A level, revision videos, podcasts and enrichment materials. furthermaths.org.uk/resources

The FMSP has pioneered the use of online classrooms and resources to support both students and teachers:

- The Live Interactive Lectures (LIL) programme is a series of online lessons that cover the content of Further Pure and Applied units across all the specifications (AQA, Edexcel, MEI and OCR). furthermaths.org.uk/lilfm
- A series of short video lectures cover the content of AS and A level Further Mathematics for all the new specifications





The FMSP has invited Year 10 students from the school to free enrichment days at the University of Cambridge.

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Stanground School Peterborough

- The Live Online Professional Development (LOPD) programme enables teachers to improve their subject knowledge and confidence in teaching A level Mathematics and A level Further Mathematics. Early evening online sessions for small groups are led by an experienced tutor and allow teachers the opportunity for interaction and discussion over the course of five to eight weeks. furthermaths.org.uk/lopd

How does the FMSP support KS4 Mathematics?

The FMSP supports the enrichment of students' experience of mathematics by providing resources, professional development for teachers and by organising a variety of events. These include:

- mathematics enrichment events for students
- the Maths Feast competition for Year 10 students
- GCSE Higher Tier content PD courses
- KS4 extension and enrichment PD courses
- KS4 problem solving PD courses

The FMSP also provide a range of stimulating and interesting resources for KS4 students and free access to resources for FSMQ Additional Maths (OCR) and for the Level 2 Certificate in Further Mathematics (AQA). furthermaths.org.uk/gcse



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Over 15,000 students attend FMSP enrichment events each year



TFM is the best CPD I have ever completed, really enjoyable, supportive and helped to deepen my understanding and interest in mathematics hugely!

TFM participant

Every year more than 2,500 teachers from over 1,500 secondary schools and colleges actively engage with the support and CPD offered by the FMSP

Supporting Teachers

A key aim of the FMSP is to contribute to the continuing professional development of mathematics teachers.

The FMSP offer a range of opportunities both face-to-face and online, to enable teachers to develop their own subject knowledge, improve pedagogy, integrate technology effectively and meet to share good practice with other teachers.

Your Area Coordinator is available to offer advice and answer questions about specifications, teaching and resources. They also organise local PD courses and run Teacher Network meetings.

The FMSP National Professional Development programmes

- Live Online Professional Development (LOPD)
- Teaching Advanced Mathematics (TAM)
- Teaching Further Mathematics (TFM)
- Teaching Mechanics (TM)
- Teaching Statistics (TS)
- KS4 Extension and Enrichment

furthermaths.org.uk/cpd





Girls taking A levels in Business Studies, Economics, Geography, Psychology and Sociology would all benefit from studying mathematics as a supporting subject because of the mathematical content of these courses.

FMSP/UCLES IOE Gender Literature Review

Encouraging girls' participation in A level Mathematics and Further Mathematics

The number of girls studying Mathematics and Further Mathematics in the UK has grown substantially in recent years but the proportion taking A level Mathematics is still only 39% and for A level Further Mathematics the figure is 28%. The FMSP offers guidance and information about how to encourage girls' participation in A level Mathematics and Further Mathematics. furthermaths.org.uk/encouraging-girls-maths

Information, advice and guidance about progression to Higher Education

The FMSP is committed to providing clear information, advice and guidance for students and teachers about the importance of studying A level Mathematics and Further Mathematics. The Universities section of our website outlines details of the mathematical requirements of a wide range of degree courses, including those in STEM and non-STEM disciplines. furthermaths.org.uk/universities

Details of the requirements for STEP, AEA, TMUA and the MAT, and advice on application for mathematics degrees can also be found on our website. In addition, sample resources provide a 'taster' for degrees in mathematics, physics, engineering, chemistry, biology and a range of other degree subjects. furthermaths.org.uk/maths_degrees



At present, many universities do not indicate the mathematics to be encountered within their degree programmes in a variety of subjects. As a result, many 16 year olds decide not to continue mathematics post-GCSE, not realising that it would be much to their advantage to do so.

Mathematical Needs: Mathematics in the workplace and Higher Education, ACME, 2011, p5



I thoroughly enjoyed the course. I felt like the tutors cared about my learning and development personally and were always exceptionally well prepared.

TFM participant

The Further Mathematics Support Programme:

- works closely with mathematics departments
- provides professional development for A level Mathematics and Further Mathematics
- provides professional development for KS4 Mathematics
- is a pioneer in live online support for teachers and students
- organises inspiring mathematics enrichment events for students
- provides tuition for Further Mathematics
- supports students and teachers with online resources
- supports teachers and students with problem solving and preparation for STEP, AEA, TMUA and MAT

The FMSP is supporting schools and colleges introducing the new mathematics A level specifications. For latest news and developments see: furthermaths.org.uk/2017

If your school or college would like to discuss how the FMSP can support your teachers and students, please contact your Area Coordinator who will be very pleased assist you.



The Further Mathematics Support Programme

MEI Office
Monckton House,
Epsom Centre,
White Horse Business Park,
Trowbridge, Wiltshire BA14 0XG

T 01225 716 492

F 01225 775 755

admin@furthermaths.org.uk

www.furthermaths.org.uk

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Further details

To find out more about the support outlined in this leaflet please visit our website and register with us using the online form. The FMSP website has details of our resources, CPD and enrichment events.

furthermaths.org.uk

