

# Support for teachers and students in secondary schools

Providing professional development, teacher support, enrichment and resources to extend KS3 and KS4 students' mathematical experience





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Students are asking now – what can I do as a statistician and how do I study cryptography?

### **Enriching and stimulating your students**

The FMSP organises mathematics enrichment events with fascinating presentations, workshops and hands-on activities, for over 12,000 students each year. The events aim to motivate and inspire 11-16 year-old students and help them to make an informed decision about further study of mathematics beyond GCSE.

**The Maths Feast** is a team competition aimed at Year 10 students. It is organised regionally by the FMSP and is an opportunity to work together in an enjoyable and competitive environment, developing problem-solving, team-working and communication skills. It takes place in the spring term each year and the materials are available for teachers to organise their own feasts in school.

### Free resources to extend and challenge students

The FMSP offers registered schools access to extensive online resources such as:

- GCSE extension materials developed for use alongside all GCSE courses helping students make links between GCSE and A level topics.
- Resources for teaching OCR level 3 FSMQ in Additional Mathematics.
- Resources for teaching AQA level 2 Certificate in Further Mathematics. This course is designed to be studied alongside GCSE and introduces topics such as calculus and matrices.
- Fully prepared lessons with all the resources needed on a variety of topics to enrich students' mathematical education.

### Information, advice and guidance for students

The decision to study Mathematics and Further Mathematics at A level can be critical to your students' futures. Studying AS or A level Further Mathematics alongside A level Mathematics helps to prepare students for university courses that are rich in mathematics. Many universities now make more favourable offers to students with Further Mathematics and for some courses Further Mathematics is a requirement. The FMSP provides up-to-date information on university requirements and links to careers information to help students make informed choices for their



A level programme. The FMSP team make many visits to schools to talk with Year 10 and 11 students about the opportunities and benefits of studying Mathematics and/or Further Mathematics beyond GCSE. These presentations, along with our enrichment activities, help to raise students' aspirations and awareness of where studying mathematics can lead.

### Support for teachers

The FMSP supports teachers with advice, resources and professional development to help them to extend and enrich the mathematical experience of students in KS4. Regular newsletters and updates provide details of local enrichment events. Your local FMSP Area Coordinator is also available to offer support and advice to your mathematics department and students and our website has useful information, advice and resources.

### **Professional Development**

The FMSP organise a range of professional development events, including some with a specific focus on GCSE Mathematics.

**Enrichment and Extension at KS4** is a two-day course offering resources to stretch more able students at GCSE and ideas for embedding these approaches into your scheme of work. This course is free to state-funded schools and academies.

**Higher Tier GCSE Content Courses** are one-day courses focusing on approaches to teaching some of the new Higher Tier topics.

**Problem-Solving at GCSE** is a one-day course covering strategies for improving students' problem solving skills and offers a chance to try out some problems, discuss them with colleagues and take away a set of resources to use in school.

The FMSP also offers a digital approach to professional development. Rather than attending a one or two-day course, small groups of teachers meet weekly for live online professional development (LOPD) sessions with a tutor via the internet. As well as a range of courses focusing on A level subject knowledge there are also courses on the use of technology in the classroom, for example: *Using GeoGebra for teaching and learning Mathematics at GCSE and Problem Solving at GCSE*.

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Actually made me think about how to deliver a subject rather than just teach from the book.





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Really inspiring and has made several students think about doing Further Maths.



#### The Further Mathematics Support Programme

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#### **About the FMSP**

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

FMSP Area Coordinators, covering the whole of England, work with schools and colleges to support and promote the study of AS and A level Mathematics and Further Mathematics and to arrange Further Mathematics tuition for students when their schools and colleges cannot provide it themselves. The FMSP provides training and support to teachers of GCSE and AS and A level Mathematics and Further Mathematics

All English schools and colleges can register free of charge with the FMSP to receive expert advice about supporting students at Key Stage 4, about AS and A level Mathematics and Further Mathematics, and about progression to university STEM courses. Registered schools receive free access to extensive online resources and get regular updates about professional development opportunities for teachers and enhancement and enrichment events for KS3, KS4 and sixth form students provided by the FMSP.

#### What is Further Mathematics?

Further Mathematics is an AS and A level qualification which both broadens and deepens the mathematics covered in AS and A level Mathematics. AS level Further Mathematics is designed to be learnt alongside AS level Mathematics in Year 12 and is accessible to any student capable of studying A level Mathematics. It can also be taken up as a new AS subject alongside A level mathematics in Year 13.

### **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 Teachers, Resources and Events pages on the FMSP website have details of our CPD, enrichment resources and opportunities.

furthermaths.org.uk

