


# FURTHER MATHS: A PARENTS GUIDE



“High level maths skills open doors to so many careers for our learners and we must support them to get the skills they need to succeed”

Wales Education Minister

Mathematics is the only A-level subject which offers two A Level qualifications - Mathematics and Further Mathematics.

In their 'Informed Choices' guide under "What subjects give you the most options" the Russell Group of 24 leading UK Universities lists Maths and Further Maths at the top. Thus your son/daughter may want to take both subjects at A-level.



**MEI** Innovators in  
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Uywodraeth Cymru  
Welsh Government



## WHAT IS FURTHER MATHEMATICS?

- Further Mathematics is an AS/A Level course and is designed to be learnt alongside Maths in Year 12, but can be taken as an AS Level in Year 13;
- Further Mathematics can be taken as an AS level course comprised of 3 Modules or as a full A level comprised of 6 Modules (can be taken across 2 years or in 1 year in Year 13) - these modules include Further Pure, Mechanics & Statistics.

## THE BENEFITS FOR YOUR CHILD

Further Maths qualifications are highly regarded and are warmly welcomed by universities. Some Russell Group University degree courses now require a Further Maths qualification, others may adjust their grade requirements more favourably to students with Further Maths.

- Further Maths opens up the choice of University. "Further Mathematics studied to at least AS level is essential for admission to read Mathematics at Cambridge and highly desirable for Computer Science, Economics, Engineering and Physical Natural Sciences." University of Cambridge. "The University is prepared to be more flexible with students who have studied Further Mathematics but have not met the standard offer" Professor Ashwin, Exeter University.
- Further maths helps the transition from A-Level to Degree level study.
- Wide variety of Careers for those with a background in Mathematics: **Business (Logistics, Financial Analysis, Market and Operational Research), Finance (Insurance, Pensions, Accountancy, Actuarial work, Banking), IT (Systems analysis, Programming), Medicine (Researchers, Statisticians), Engineering (Building Design, Transport Planning, Telecommunications) and Scientific Jobs (Biotechnology, Meteorology, Oceanography)**

Students overwhelmingly find Further Maths to be an enjoyable, rewarding and stimulating experience. They meet and work with like-minded students from across the region who enjoy mathematics. They will taste a more independent style of learning, which is good preparation for university and future careers.

- Further Maths broadens student's understanding of Mathematics. It deepens, consolidates and reinforces the standard A level Maths work.
- Further Maths enables students to develop a better skill set. The qualification demonstrates excellent analytical skills. "Mathematics provides you with a broad range of skills in problem solving, logical reasoning and flexible thinking. This leads to careers that are exciting, challenging and diverse in nature" Cardiff University.

## HOW FURTHER MATHEMATICS CAN BE STUDIED?

Since 2010 the number of sixth form centres offering Further Mathematics has increased in Wales. Although not all schools or colleges offer Further Mathematics year after year many institutions find ways of helping their students. Please check with your school if one of these options may be available for your child. Many schools offer a combination of the following options to deliver full A-level Further Mathematics tuition.

**Timetabled option** - Further Maths held during the teaching day, may be part of a consortium (teaching held at a number of locations).

**Un-timetabled option** (but available at school/college) - Further Maths held during lunch times and after school hours.

**FMSP Wales tuition** - If your child's school/college does not offer Further Maths they may be able to get access to AS/A level Further Mathematics tuition through a FMSP Wales Tutor.

Tuition is available both online and face-to-face. No tuition fee applies to students or parents.

All our tutors are qualified teachers.

Parents/students should contact the school/college directly if they would like to take Further Maths through the FMSP Wales. The key contacts may include the Head of Mathematics, Sixth Form Coordinator and/or the Able and Talented Programme Coordinator.

Parents are welcome to speak to the FMSP Wales about arranging tuition. Please see our 'Contact us' page and speak to your local FMSP Wales area coordinator.



## HOW PARENTS CAN HELP?

- Find out about University choices and careers whilst your child is in year 10/11. Your child may not find out about Further Maths until it is too late, which may compromise their choice of University course.
- Support and encouragement - Many students take Further Mathematics as a 4th or 5th A-level subject and some students consider Further Maths to be the hardest A-Level. The classes may not be timetabled and students could expect to undertake tutoring at lunchtime or after school.
- Visit the FMSP webpage [www.furthermaths.org.uk/wales](http://www.furthermaths.org.uk/wales) and follow FMSP Wales on twitter for the latest information about upcoming events and activities. The FMSP Wales offers a range of extra classes which are free to all state funded schools and colleges in Wales. Although all sessions are advertised to schools and colleges directly, please encourage your children to check our events page ([www.furthermaths.org.uk/Wales\\_enrichment](http://www.furthermaths.org.uk/Wales_enrichment)) regularly to find out about our future events in advance.

## FMSP WALES OFFERS:

**Taster sessions** for students interested in Further Maths.

**Study Days** for all Further Pure, Mechanics and Statistics modules - four hour Saturday sessions - highly recommended to students that do not have regular support in their school as well as to all students subscribed for the FMSP Wales tuition.

**Revision sessions** - three hour Saturday sessions organised closer to exams in Bangor, Cardiff, Glamorgan, Haverford West and Swansea. Online materials are also available.

- Transportation to events - The majority of events are organised on Saturdays. This is to minimise disruption to a school week and avoid problems with supply cover in schools. On the other hand it means that your children may need your help to get to and from the sessions.



**“I had great tutors with the FMSP Wales, which were easy to communicate with even though the lessons were online”**

Wayne Edwards  
Sir Thomas Picton School Further Mathematics grade achieved - A\*  
University College London - BSc Mathematics

## A PARENT'S VIEW

### CASE STUDY FROM A PARENT OF A FURTHER MATHS STUDENT

“I had not heard of Further Maths until my daughter decided to apply to Cambridge to study Maths. It became clear that without it she would not even be called for interview so the quest began. Our school doesn't offer Further Maths and the FMSP was the only option. The tuition has been given face to face and online and has been excellent with my daughter passing the first modular exam with an A.

She has really enjoyed the tuition and the fact that she has had to do a lot of work independently has been a very good preparation for independent study at University. The Further Maths study has also confirmed for her just how much she enjoys maths and that it was the correct choice for her at Uni.

Any child with an interest in maths or maths based subjects would benefit greatly from taking Further Maths as it broadens their knowledge and gives them a really good start on any further study.

The FMSP staff could not have been more helpful, especially to the school. I would tell all parents not to be put off asking for Further Maths for your child just because the school is unfamiliar with the process. Persist and eventually they will get it!! Thanks to the tuition from the FMSP my daughter is now an offer holder for maths at Cambridge”.

#### Additional information:

[www.mathscareers.org.uk](http://www.mathscareers.org.uk)  
[www.russellgroup.ac.uk](http://www.russellgroup.ac.uk)

For more information please contact Caron Flynn:

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[www.furthermaths.org.uk/wales](http://www.furthermaths.org.uk/wales)