

The Further Mathematics Support Programme

Careers in Teaching

If you love doing mathematics, you should consider becoming a teacher. Teachers are the people who pass the subject on to the next generation. They work with the basics of mathematics but they understand how it develops and is used in the world. Teachers keep up to date with mathematics on social media, at mathematics education conferences and network meetings, through marking and setting examinations, creating resources and writing textbooks and websites. Teachers need to have a broad range of skills in addition to their subject knowledge – enthusiasm, commitment, patience and a good sense of humour are also very important.

Teaching offers the opportunity to inspire and encourage young people and share what you love about your specialist subjects. In general, a teaching course would offer classroom experience across two key stages, for example a secondary teacher would teach across Key Stages 3 and 4 (Years 7 – 11). Some secondary teaching courses also offer training in teaching a subject post-16.

Secondary school or college teachers usually work in departments, as part of a team of mathematics specialists. In primary schools, all teachers are responsible for mathematics in their classes but there is usually a school mathematics co-ordinator who leads the overall school approach.

Career progression can be to take responsibility for the curriculum for certain age groups, mentor other teachers, become the head of department, a head teacher, or a mathematics consultant in a university or in business.

Secondary Mathematics

Mathematics is considered to be a 'priority subject' by the Department for Education. To train to be a secondary mathematics teacher there are two possible routes:

- *A degree in a mathematical subject followed by a one year teacher training course in a university or on a school based programme.*

Around 2500 trainee teachers entered postgraduate secondary mathematics training courses in 2015-16, with half studying on a university-led route and half following a variety of school-based programmes. Trainee teachers on a PGCE course usually attend placements in two schools, totalling 24 weeks, and also attend lectures at university.

- *An undergraduate degree with qualified teacher status (QTS)*

This course allows the integrated study of mathematics and mathematics education and also includes school placements totalling 24 weeks.

Financial Support

If you successfully apply to teach mathematics you could be eligible for a tax-free bursary of up to £25000, with the maximum amount available to trainees with a first, 2:1, 2:2, Master's or PhD degree. Alternatively, you could receive £9000 if you have a grade B or above in A level Mathematics and have a degree in a relevant subject.

There are also prestigious scholarships available from the Institute of Mathematics and its Applications (IMA) if you have a 2:1 or better. Please visit the [IMA website](#) for more information.

Students on undergraduate mathematics or physics degree courses with QTS are eligible to apply for a bursary of £9000, payable during the final year of the course.

For the latest information on funding, visit the [DfE Website](#).

Subject Knowledge Enhancement (SKE)

SKE courses are available in biology, geography, mathematics, physics, chemistry, computing, design technology and languages. They are designed to build and refresh subject knowledge for potential trainees who have a degree that is closely linked to the subject they want to teach and have studied the subject at A level but not at University. The courses are fully funded and are available at venues across the country, running from 8 to 36 weeks. You may also be eligible for a bursary of up to £7200 to support the study of an SKE course. Visit the [DfE website](#) for more information.

Primary Mathematics Specialism

This course equips trainee teachers to teach all subjects in the primary curriculum but also develop the skills and knowledge required to become an expert in teaching primary mathematics and supporting colleagues in the teaching of mathematics in their classes. Training bursaries are available of up to £6000 for eligible applicants.

More information can be found on the [DfE website](#).

Teaching Sciences

Physics, chemistry and biology are also considered to be 'priority subjects' by the Department for Education and financial support of up to £30000 is available to train in these subjects.

For more details on teaching sciences and the funding available for training to teach each of these subjects, see the [DfE website](#).

Additional Information

Applicants for a secondary teacher training course in any subject must have a minimum of a GCSE grade C (or equivalent) in Mathematics and English; for applicants to primary teacher training there is also a requirement to have a minimum of a GCSE grade C (or equivalent) in science.

You will have to pass the Literacy and Numeracy **skills tests** before starting a teacher training course – the first attempt is free and up to two resits can be taken.

It is also important to get experience shadowing teachers in school to ensure you are making an informed decision. Most teacher training providers will expect at least 10 days' school experience prior to applying for the course.

Useful links and recommended reading

More information about training to be a mathematics or science teacher can be found via the following links:

- **Get into Teaching** – the Department for Education’s website which provides a general overview of the routes into teaching.
- **UCAS Teacher Training** – a subsection of the UCAS website, providing information on training programmes, entry requirements and financial support.
- **Prospects** – information, advice and guidance on postgraduate routes into teacher training.
- **DfE Skills Tests** – the official professional skills test website, which includes exemplar tests and guidance on how to register for the tests.
- **DfE National Curriculum** – an overview of the Programme of Study for each subject in the National Curriculum.
- **GCSE Mathematics** – the DfE’s subject content document which gives an overview of the required content of GCSE Mathematics courses from 2015.
- **The Association for Science Education** – a professional body for all those involved in science education from pre-school to higher education.
- **Passing the Numeracy Skills Test (Achieving QTS Series)** – Mark Patmore

If you are thinking about becoming a mathematics or science teacher, you might be interested to read some of the following books and websites:

- **Teaching Mathematics in the Secondary School (Developing as a Reflective Secondary Teacher)** – Chambers & Timlin
- **Teaching Science in the Secondary School (Developing as a Reflective secondary Teacher)** – Liversidge, Cochrane, Kerfoot & Thomas
- **100 Ideas for Secondary Teachers: Outstanding Mathematics Lessons (100 Ideas for Teachers)** – Mike Ollerton
- **100 Ideas for Secondary Teachers: Outstanding Science Lessons (100 Ideas for Teachers)** – Ian McDaid
- **NCETM** – National Centre for Excellence in the Teaching of Mathematics – professional development, information and guidance for teachers of mathematics across all age ranges.
- **TES** – Times Educational Supplement – news, teaching resources and information about job vacancies.
- **MEI** – Mathematics in Education and Industry – information, advice and guidance for students and teachers of mathematics.
- **Institute of Physics (IOP)** – information about curriculum development and professional development in Physics.
- **Royal Society of Chemistry (RSC)** – the UK’s professional body for chemists
- **Royal Society of Biology** – information about curriculum development and a range of teaching resources for biologists.