

Changes to maths education post-16, the new mathematics AS/A levels and the support offered by Mathematics in Education and Industry (MEI) to help schools and colleges teach them

Post-16 Maths education is experiencing dramatic changes, with a requirement for those students who do not achieve a grade C or above in GCSE Mathematics to re-sit the GCSE or to work towards it, the introduction of the new 'Core Maths' qualifications and the forthcoming, very significant, changes to AS/A level Mathematics and Further Mathematics.

GCSE re-sit (or a programme working towards it), Core Maths and AS/A Level Mathematics (together with, for those with highly mathematical aspirations, AS/A level Further Mathematics), form three clear maths pathways that are intended to address the needs of all students post-16.

A level Mathematics and Further Mathematics entry numbers have grown very strongly since 2004¹ with Mathematics the top ranking subject at AS level in 2016, but the qualifications have not changed in that period and are in need of reform. New AS and A levels in [Mathematics](#) and [Further Mathematics](#) are being introduced in England for first teaching from September 2017. The changes offer an exciting opportunity to refocus teaching so that students are better able to use mathematics they learn, which will improve their transition to higher education and employment.

The changes include:

- **New linear structure:** As for AS/A levels in all other subjects, AS will be decoupled from A level, so that AS marks will not contribute to the A level grade, and all assessment will take place at the end of the course. A level questions will draw on the whole of the course content.
- **New emphases:** There will be a greater emphasis on problem solving, on reasoning and on modelling, and a requirement for the use of [technology](#) to permeate teaching and learning.
- **New content:** The content of AS and A level Mathematics will be fixed. It will include pure mathematics, mechanics and statistics (including analysis of large data sets) - see MEI's [comparison](#) and [summary](#). There will be some choice in content for Further Mathematics.

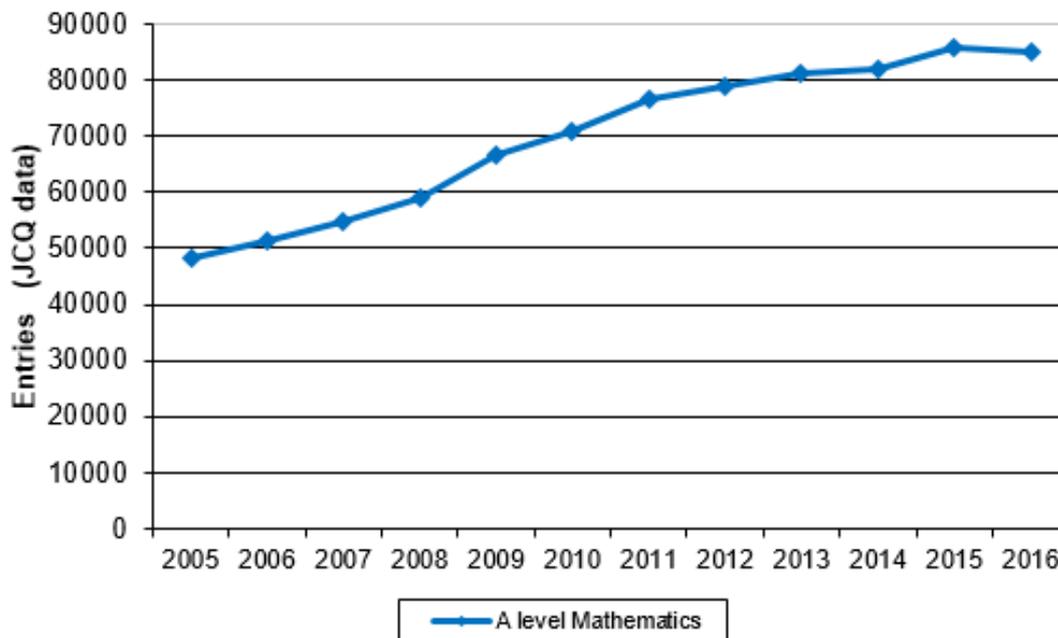
The new AS and A level qualifications in Mathematics will first be awarded in the summer of 2018, as will the new AS in Further Mathematics. The new A level in Further Mathematics will first be awarded in summer 2019.

MEI has designed its own specifications for these new qualifications - the [OCR\(MEI\) specifications](#). However, as an independent education charity whose aim is to improve mathematics education, MEI is providing expert support for teachers of **all** new AS/A level specifications in Mathematics and Further Mathematics. Teachers will need considerable support to adapt to the new emphases and structure. MEI's extensive experience of working with mathematics teachers gives us confidence that, with the right support, they will rise to the challenge of the new qualifications and will enjoy the new teaching and learning opportunities they bring.

¹ See graphs overleaf

Over the coming academic year, teachers will need to get to grips with new ideas and teaching approaches, so that they are ready to begin teaching the new qualifications from next September. MEI has developed extensive support for the new AS/A levels for all specifications. This includes a [programme](#) of professional development to support teachers through the transition, a suggested [Scheme of Work](#) that teachers can adapt for their own use, teaching and learning [resources](#), answers to [FAQs](#), and regular updates for all interested parties – teachers, parents and students.

A level Mathematics entries - England



A level Further Mathematics entries - England

