Media release **13 October 2015**

For immediate release

New options for studying maths after GCSE

It's the time of the year for sixth form open evenings and college open days, and most year 11 students, and their parents, are thinking about what to do after their GCSEs.

Getting more young people to study maths to a higher level is a national priority, and the Government aims that by 2020 the vast majority of 16-19 year-olds will study maths in some shape or form. In a major step towards achieving this aim, a new type of level 3 qualification called Core Maths has been introduced, providing students who get a good pass in GCSE Mathematics with a wider range of options for continuing to study maths.

Core Maths qualifications have been designed for those students who have achieved grade C or better in GCSE Mathematics, but who do not intend to study maths at AS/A level. They are equivalent in size to an AS level and are expected to normally be studied over two years. Their aim is to help students to strengthen and develop the mathematical knowledge and skills they have learnt at GCSE so that they can apply maths effectively to the problems that they will encounter in further study, employment and everyday life. This makes these qualifications particularly relevant options for students whose other subject choices include some use of maths, e.g. A levels in Psychology, Geography, etc. or level 3 qualifications in vocational subjects such as Construction, Business, etc. Any student who is hoping to be a primary school teacher or work in nursing would benefit from Core Maths as well. Students pursuing arts courses, would also find these qualifications valuable because competence in applying mathematical thinking boosts employability in almost all careers and is very useful for understanding the world we live in and making decisions based on evidence.

A small number of schools and colleges started to offer Core Maths qualifications last year, as 'early adopters'; however, it is only now that these qualifications becoming more widely available.

The key post-GCSE maths options available to students who wish to pursue higher education and/or a career in a STEM-based field (see note 5), or who are especially interested in maths are **AS/A level Mathematics** and **AS/A level Further Mathematics**.

AS/A level Mathematics is a good choice for any student who has achieved grade B or better in GCSE Mathematics (and in some cases, grade C). It is particularly relevant for students taking science subjects and those who intend to take a mathematically rich degree or higher apprenticeship. It is highly valued by both universities and employers and there is strong evidence to suggest that it increases earnings (see note 6). The numbers of students taking AS and A level Mathematics has been growing rapidly for many years (see graph 1) and Mathematics is now the most popular of all A level subjects.

Studying **AS/A level Further Mathematics** (as a second mathematical AS/A level in addition to AS/A level Mathematics), is a good option for students who enjoy maths and are intending to take a degree in maths or another mathematically rich degree, such as engineering or physics. It is accessible to any student capable of succeeding at A level Mathematics. A level Further Mathematics has been one of the fastest growing A levels over the last 10 years and the number of students taking AS Further Mathematics has grown by over 500% over the same period (see graph 2).

Those students starting a 16-19 Study Programme who have not achieved GCSE Mathematics grade C or better are required to continue to work towards it, either directly or by studying for a stepping stone qualification such as Functional Skills Mathematics. In particular, those students on full-time programmes who achieved grade D in GCSE Maths

must now be enrolled on a GCSE Mathematics course, offering them a fresh attempt at the qualification.

Charlie Stripp, Chief Executive of Mathematics in Education and Industry (MEI), welcomed this widening of the range of post-GCSE Mathematics options available to students:

> *"Our country desperately needs more of our young people to learn more maths, more successfully, and to know how to use it. I am delighted that there are now clear pathways for all 16-19 year olds to learn the maths they need, whatever their aspirations.*
>
> *Year 11 students undecided about which maths course to do, should take the most advanced course they are capable of, as this will keep more options open for them. When they are considering their options over the coming weeks and months they should be thinking not 'Shall I do maths?', but rather 'Which maths shall I do?'"*

Notes to editors

1. Mathematics in Education and Industry (MEI www.mei.org.uk) is a charity which seeks to improve maths education through developing new courses, providing resources and professional development for teachers and influencing policy. MEI was involved in the development of Core Maths qualifications.

2. Six Core Maths qualifications are offered by five exam boards: OCR, AQA, Pearson, WJEC and City and Guilds. See http://www.core-maths.org/information/awarding-organisations/.

3. Core Maths courses started in September 2015 across the country. Some schools and colleges, 'early adopters', trialled the courses from September 2014.

4. The Core Maths Support Programme (see www.core-maths.org) has been funded by the government to support the introduction of these qualifications.

5. STEM is the acronym of science, technology, engineering, and mathematics.

6. The report 'The earnings and employment returns to A levels: A report to the Department for Education' by London Economics, published in March 2015 found that "…possession of 1 STEM A level boosts earnings by approximately 15 percentage points compared to possession of non-STEM A levels." (See

http://londoneconomics.co.uk/blog/publication/the-earnings-and-employment-returns-to-a-levels/). Maths is the most popular and versatile STEM A level, relevant to the humanities and economics and business, as well as crucial to science, engineering and technology.

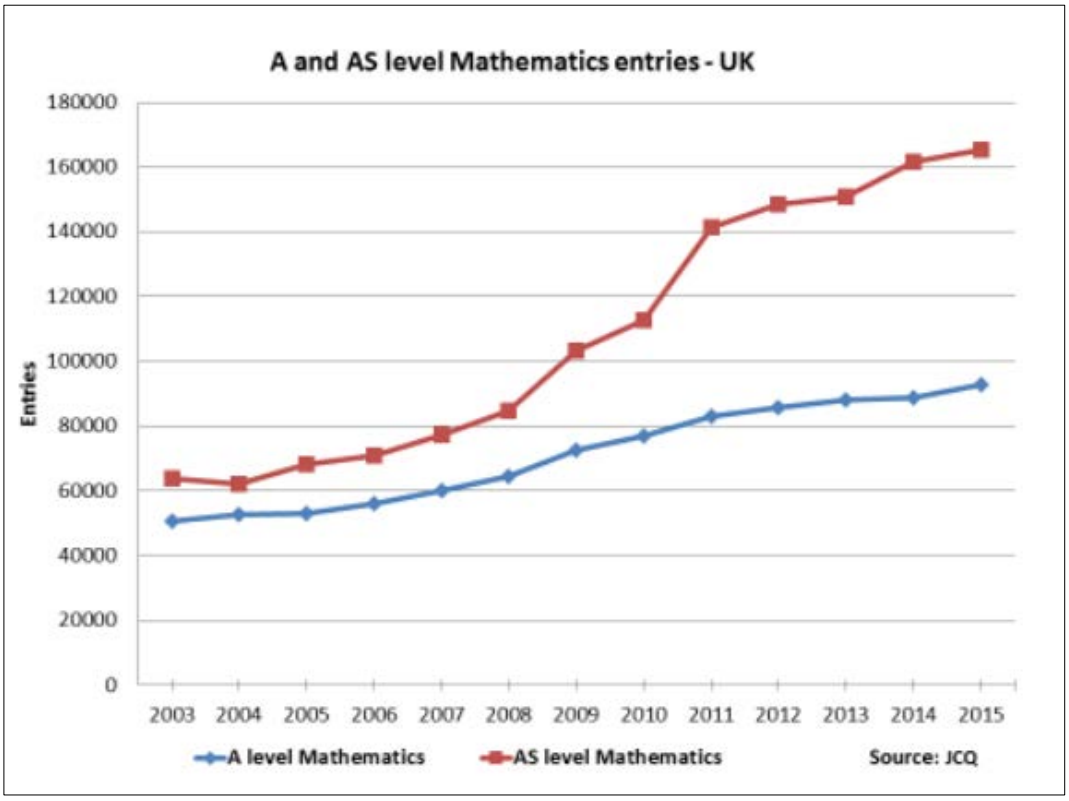
7. Charlie Stripp was awarded an MBE in January 2015 for his services to education.

8. For more information contact:

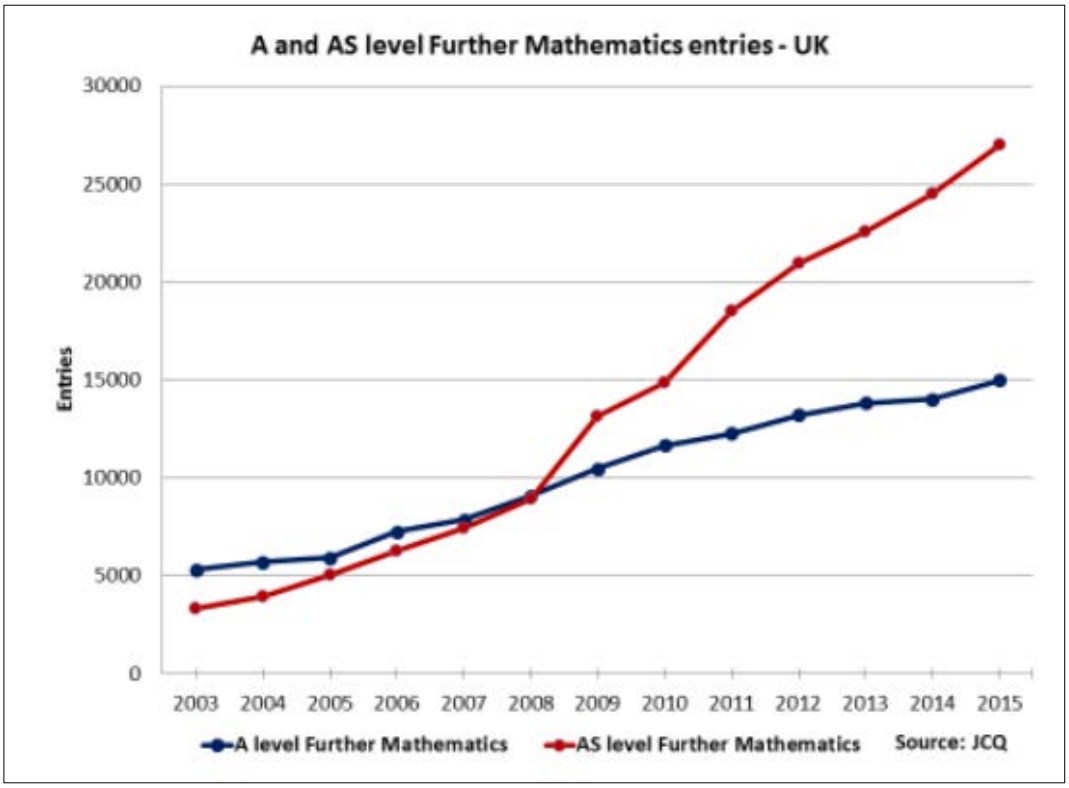
Charlie Stripp, MEI Chief Executive, charlie.stripp@mei.org.uk, 07771 864507
Janice Richards, Programme Leader, janice.richards@mei.org.uk, 07445 345094

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

Graph 1



Graph 2


A and AS level Further Mathematics entries - UK
30000
25000
20000
15000
10000
5000
0
Entries
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
A level Further Mathematics
AS level Further Mathematics
Source: JCQ