



Rt Hon Michael Gove MP
Secretary of State

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30 August 2013

Dear Colleague,

As a country, we face a significant challenge in meeting the growing demand for students who have higher level mathematical skills. Research, innovation and enterprise are more and more dependent on mathematical and scientific applications. If the UK is to compete internationally we need to be at the forefront in equipping young people to be highly skilled in maths.

The UK lags behind our major international competitors in the number of young people who study maths after age 16. We're also poor in persuading more students to develop the advanced mathematical skills and understanding necessary for highly valued STEM degree courses such as maths, physics, engineering and computer science.

I want to ask for your help in giving more young people the opportunity to acquire the mathematical skills to succeed. Your organisation has the capacity to help us meet the ambition to have a majority of 16-18 year-olds studying maths by 2020.

The government is taking a series of steps to improve mathematical understanding. Our new maths curriculum has a greater emphasis on mathematical fluency and reasoning. GCSEs will be reformed so that from 2015 they will offer a stronger foundation for further study of maths and the sciences. For those students who fail to secure a GCSE pass at 16 we will insist they carry on studying maths until they do. We have worked with Kings College London and Exeter University to open highly specialist maths schools that will stretch the most able students. We have expanded the Further Maths Support Programme so that nearly 70 per cent of state schools offer the subject at A level, and we have funded MEI (Mathematics in Education and Industry) to work with Fields medallist Sir Tim Gowers to develop an innovative post-16 maths course.

It is also our intention to introduce new level 3 'core maths' qualifications as an option for students with a grade C or above in GCSE Maths who do progress to A level. Similar in size and demand to the current International Baccalaureate (IB) Certificate in Mathematical Studies, these qualifications will develop valuable mathematical skills for university study and employment. I would welcome your support for these developments and for related work on new curricula and qualifications.

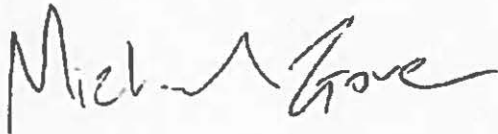
Of course government can only do so much. One of the most powerful drivers of increased maths take up is a clearer signal from universities of the importance they attach to maths. Some universities refrain from spelling out the level of maths knowledge and skill required for

some of their courses because they wish to maximise the number of applicants. They are, however, depressing the number of students who then pursue the maths qualifications in school which would equip them for the relevant university courses.

A number of university academics have – understandably – complained about the lack of mathematical knowledge of students applying to study a range of scientific subjects. But that lack of knowledge can only be remedied if universities are explicit about the need for maths qualifications if offers are to be made.

I am writing to ask you to exert your influence with universities to address this issue - to ask them to do more to signal that they want candidates with A level maths, including Further Maths where appropriate, and our new core maths qualifications as they become available, and take a firmer approach to entry requirements where necessary. We need to encourage a change in education where, increasingly, schools, colleges, parents and students view the study of maths to age 18 as an expectation and value higher levels of achievement in the subject.

I hope I can rely on your support on this important issue. I am keen to hear your assessment of the action that you and government could take in this area and your views on what more could be done to deliver the change we need.

A handwritten signature in black ink, reading "Michael Gove". The signature is written in a cursive style with a large initial 'M' and a long, sweeping underline.

MICHAEL GOVE