### NEW ADVANCED MATHS PREMIUM CAN OPEN MORE DOORS FOR YOUNG PEOPLE

- Schools and colleges will receive a £600 premium for every additional young person aged 16-18 who takes an advanced maths qualification
- New premium will help create additional places and resources to support teaching of advanced maths – building on the government's reforms to AS and A level qualifications
- Maths is vital in ensuring Britain has the skills for success in a future economy

   Royal Society has highlighted maths as a key skill needed by employers by
   2030

Schools and colleges in England will receive a funding boost to help increase the number of 16 to 18 year-olds studying advanced maths subjects post-16, the government has announced today (Wednesday 28 February).

During a visit to Lilian Bayliss Technology School in London, Schools Standards Minister Nick Gibb and Chief Secretary to the Treasury Liz Truss announced the Advanced Maths Premium, a new fund to help schools and colleges increase the number of students studying maths after GCSE.

Data shows that pupils who do well in maths at school earn higher wages, with men seeing a premium of 12.5 per cent and women a 23.9 per cent increase.

The premium will also support institutions to increase the number of girls and those from disadvantaged backgrounds taking advanced maths qualifications, to help equip Britain with the skills needed to boost the future economy. The £600 premium is equivalent to 15 per cent of the base funding per student.

It follows a commitment from the Education Secretary to continue improving academic standards in order to deliver a truly world-class education, that inspires young people to make the most of their lives and gives them the opportunity to fulfil their ambitions, no matter where they live.

From September 2018, schools and colleges will receive an extra £600 premium for each additional pupil taking the one-year AS maths or the Core Maths qualification. This could mean £1,200 for each additional pupil who takes the two-year A level in maths or further maths.

While maths continues to be the most popular subject at A level, with almost 25 per cent of pupils choosing to study it, there are almost <u>three quarters</u> of students with an A\*-C in GCSE maths at age 16 who decide not to continue studying the subject.

### Chief Secretary to the Treasury, Elizabeth Truss, said:

"We know that maths powers our economy. And for individual students, choosing maths could add around 10 per cent to their future earnings.

"It is even more beneficial for women and I specifically want to encourage more girls to take maths and open up their future.

"In many other advanced nations, pupils are encouraged to study maths beyond 16-yearsold. The maths premium will help more students study maths for longer and put them in a great position to take up skilled jobs."

#### Schools Standards Minister Nick Gibb said:

"Academic standards are rising in our schools, with 1.9 million more children in good or outstanding schools than in 2010.

"Although maths remains the most popular subject at A level, this premium will open up the opportunity for even more young people to study advanced maths qualifications, providing them with the knowledge and skills for future success.

"Our reforms to post 16 maths qualifications, have led to a more rigorous curriculum, enabling pupils to gain a deeper understanding of the subject. This will lead to better options for further study and training, including careers in engineering, computing, accountancy and design."

During the visit both Ministers saw firsthand how pupils are preparing for their upcoming maths exams and heard about young people's future plans to use their qualifications in the next stage of education or careers.

As set out in the Sir Adrian Smith review, there is an increasing demand for mathematics and quantitative skills in all levels of the labour market and the Royal Society has outlined maths as the key skill required by employers by 2030. This extra funding will increase maths provision and the quality of education that can be provided to pupils and therefore better preparing them for further study and future careers.

In addition to this, the Royal Society has discussed the importance of young people having a positive experience of learning mathematics and understanding its value and importance in order to apply what they have learned in future studies, employment and daily lives.

# Frank Kelly, Chair of the Royal Society Advisory Committee on Mathematics Education, said:

"The UK cannot prosper without a numerically literate population.

"The Government has recognised that too few young people are studying maths after turning 16 and the increased funding announced today can be a step towards putting that right."

This funding boost comes during the Year of Engineering, which celebrates the world and wonder of engineering, which is inextricably linked to maths. It also forms an important part of the Industrial Strategy which is committed to boosting engineering across the UK, ensuring everyone has the skills needed to thrive in a modern economy.

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There is no cap on the numbers of eligible pupils for the funding. The Advanced Maths Premium will mean schools and colleges receive £600 for every extra pupil who takes a one year qualification such as AS Level Maths or Core Maths and £1,200 for every additional pupil taking A level maths or further maths (or a range of other two year qualifications) based on £600 for each of the two years. If an additional student is studying both a maths and further maths qualification in the same academic year it is possible for that student to be funded twice in the same year. This is the only combination of qualifications that will attract funding twice in one year. A London Economics Report found, individuals whose highest qualification was an A level, pupils performing well on mathematics tests (British Cohort Study BCS70) at age 10 earn more in later life, even after accounting for holding A level qualifications. Compared to scoring in the lowest mathematics test quartile at age 10, a female in the top quartile earns a 23.9% premium, while a male achieves a 12.5% premium. <u>http://londoneconomics.co.uk/wp-content/uploads/2015/03/London-Economics-Report-Returns-to-GCE-A-Levels-Final-12-02-</u>2015.pdf

Given that all students at maths schools are required to study both maths and further maths A levels, these schools will not be eligible for the premium.

Students will need to have a prior attainment equivalent to GCSE grade 9 to 4 or A\* to C in maths to be eligible for this premium.

For more information or interview requests, please contact the Department for Education press office on 0207 783 8300

# Professor Paul Glaister, University of Reading and Chair, The Joint Mathematical Council of the UK (JMC) said:

"Sir Adrian Smith's Review of Post 16 Mathematics, and the Industrial Strategy White Paper - Building a Britain fit for the future, make clear the importance of students continuing to study mathematics post 16, and which I support wholeheartedly.

I believe it is vital to the UK economy that far more students continue to study some form of mathematics post 16 on an appropriate pathway.

I therefore very much welcome the Government's commitment to increasing participation in level 3 mathematics. The £600 Advanced Maths Premium announced in the November 2017 Budget Statement for additional students taking AS/A levels in Mathematics and Further Mathematics, and Core Maths, along with today's specific details of the funding for schools and colleges announced today, are particularly welcome.

Studying any of these level 3 mathematics courses enables students to acquire, and develop, deep mathematical/quantitative knowledge and understanding, along with reasoning and problem-solving skills, all of which are essential for many careers and further study. As universities and employers alike stand to benefit significantly from better-prepared students and employees, they should also be strongly supportive of this step-change in commitment by the Government.

The additional funding provided by the Advanced Maths Premium should enable schools and colleges to expand their provision of level 3 mathematics courses. This goes a long way to achieving a goal of the vast majority of students studying mathematics post 16 as happens in many other nations around the world."