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# Could Sunak's maths plan boost girl's interest in STEM?

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Credit: Getty Images/ Leon Neal / Staff

**PM Rishi Sunak's plan to extend maths education has sparked controversy across the nation. Four experts share how the news may impact girls in STEM**

Prime Minister Rishi Sunak has announced plans to "reimagine" the nation's "approach to numeracy," which will require students in the UK to study maths until age 18.

Currently, they are given the option to 'drop' the subject at 16, which more than half of students do.

The news has sparked a wide range of reviews, with many criticising the plans due to funding, teacher availability, student interest and topic relatability to life outside the classroom. But regardless of whether you're for or against the new announcement, we wanted to explore how it will impact girls – specifically, in relation to STEM careers.

## Why do girls lose interest in STEM?

Research has shown that girls' interest in STEM subjects begins to weaken at age 11, with a sharp drop-off occurring around 15 years old, according to research from [Microsoft](#). This is one year before they're given the choice to continue studying the subject or not.

As a result, female students were found to be four times less likely to enrol in a maths-heavy subject, such as engineering and physics, than boys. Female participation in these subjects is likely to enhance the gender gap found in STEM careers, with women contributing to just [24% of the STEM workforce](#).

Access to education is not the only factor deterring girls to continue further studies in STEM. Microsoft's research found that three key areas need to be improved upon, to encourage more girls into the sector: access to mentors, exposure to role models and hands-on exercises.

Yet will this move from the UK government spark a shift in thinking, to keep girls' interest in STEM subjects alive? We spoke to four experts to hear their views.

## Maths should include practical skills

[Sharon Davies](#), CEO of leading education charity [Young Enterprise](#): "Introducing compulsory maths to 18 would be a really positive step.

"Far too many young people in the UK currently leave education without the necessary skills in maths and that leads to an attainment gap and unrealised potential. In many countries, including France, Germany, America and Japan, it is already compulsory to study maths until 18.

"In today's data-driven society, having a great knowledge of maths can only set young people up for a better future.

"However, compulsory maths to 18 should consist of practical maths, including personal finance skills such as budgeting, saving and digital literacy, especially as many jobs are now

underpinned by technology, statistics, and data.

“Also, as we continue to push for more gender diversity in STEM and encourage girls to study STEM subjects, a practical maths education could prove invaluable in helping them develop skills in the space.”

## Encouraging numeracy could be a “game-changer”

**Robin Sutara**, Field CTO, **Databricks**: “Ensuring that children have the best possible grasp of maths and statistics until the age of 18 should be welcomed with open arms. In our data-driven world, with new AI technologies emerging rapidly, the UK tech sector simply needs more candidates with sound statistical and mathematical backgrounds to fill certain roles in the fields of data engineering, data science and more.

“Moreover, encouraging numeracy skills could also be a game-changer for getting girls to consider STEM careers. Not all STEM careers require a STEM education, and it's increasingly possible to move into the roles with the right training and not necessarily a STEM degree.

“However, having a greater understanding of maths could mean the difference between a young woman considering making the move into STEM, and writing it off as totally impossible. Essentially, this understanding could mean the difference between a young woman being considered for a role, or not.”

## STEM needs greater diversity and inclusion

**Dr. Sarah Peers**, Associate Professor and Head of Academic Skills at **NMITE (New Model Institute for Technology and Engineering)**, says: “Too many girls in the UK give up mathematics at 16 – despite beating the boys at maths GCSEs. This is one of the stumbling blocks to entry into STEM, particularly engineering. A big positive to Sunak's announcement is that if all pupils continued maths to age 18, the gender disparity at entry into UK's engineering university courses could reduce.

“NMITE is about technology and engineering: we value mathematics. But the future of STEM needs diversity and inclusion, so until Sunak's vision becomes reality, we reduce gender, and indeed other, barriers by looking for students who might not have maths A Levels, but do have other valued skills such as communication, curiosity, passion, grit, collaboration, and creativity.

“Engineering, technology and even mathematics need creative people, and are tools to change the world for the better: I hope more girls will find this out.”

## Real-world context is still needed

**Amanda Brock**, CEO at **OpenUK**: “Encouraging everyone but particularly girls to study and understand maths is an essential step in the right direction to fill some of the opportunities that exist around STEM.

“Areas like AI and ML are based on statistics and modelling data, and understanding the maths involved in these areas will be essential. Girls using their experience to ensure that these kinds of projects represent them and their experiences, rather than the current issues with bias, will help to ensure that our technologies are more representative of our diverse population.

“Being able to put the world of maths into a real-world context would be my ideal first step to improving the curriculum. It would help get the next generation of tech professionals ready for the workplace. But it's also not enough. We then need to see the next step being computer science as a compulsory part of every young person’s curriculum throughout the lifetime of their education.”

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