



# Expert Advisory Group on Maths to 18: Terms of Reference

## Background

The Prime Minister has set a new mission for all young people to study maths to age 18, helping them develop the skills they need to be better equipped for the modern economy.

Well-functioning maths skills have significant benefits for individuals' economic prospects, and a mathematically literate population is essential for a strong economy. We know that adults with poor numeracy are more than twice as likely to be unemployed as those with competent numeracy at age 30, and the OECD has identified a strong link between basic numeracy and higher wages in England. More advanced maths skills are important too – individuals with a maths A level are estimated to earn 7-10% more than those without one (but who are otherwise similarly educated).

But too few are emerging from the education system with the maths skills that they need - failing both to realise the benefits to their own economic prospects, and to contribute to a strong economy. In a 2012 survey of young people aged 16-24, England scored significantly below the OECD average for numeracy, while a lack of basic numeracy contributes to around one in four employer-reported skills gaps. STEM skills shortages cost UK employers c.£1.5bn a year, with a particular gap at levels 3-5.

The Government's commitment for all young people to study maths up to age 18 creates a renewed opportunity to assess the maths content in post-16 qualifications and programmes, and ensure it is giving young people the maths skills they need to succeed in life. In doing so, we will ensure that post-16 maths study helps to both fulfil the potential of all young people and improve the UK's global competitiveness.

## Scope

The Expert Advisory Group will collate evidence and provide advice to the Prime Minister and Secretary of State for Education on what maths knowledge and skills are needed for jobs in the modern economy, and therefore what 'best in class' modern maths content should look like. The Group will also advise on how this should be reflected in a post-16 education system in which all young people study meaningful maths to age 18. This, in turn, will inform government policy and delivery decisions - the end result of which should be that any young person, regardless of their chosen pathway, will experience high-quality maths education that is world class and suited to their needs, including considering those with SEND who may require a tailored approach.

### *What maths is required to be globally competitive?*

- What is the essential content that should be taught as part of 16-18 maths content? The Group should consider where this builds on what young people should already know at GCSE level.
- What maths skills are needed to succeed in the workplace:
  - For STEM-reliant jobs;
  - Non-STEM reliant jobs.
- As well as, for example, the ability to handle data, we also welcome the Group's views on the ways in which mathematical reasoning or modelling is used to solve problems and answer questions in jobs.
- What maths knowledge do young people need by age 18 to manage their own finances?
- How many hours of study are required to cover those topics and embed those skills? Does that study need to be continuous over the course of 16-19 education or not?

### *How this maths is taught*

- Should the level or the depth of the content taught vary across different post-16 pathways? For instance, should technical and academic pathways include the same content? Should all young people study to the equivalent of Level 3?
- What can we learn from the world's best performing countries on how maths is taught in 16-18 education?
- Is the right maths content included in existing post-16 qualifications and programmes in the right form? Should existing qualifications be adapted to ensure they are teaching the right content – and therefore the right skills? Should the recommended content be examined in a different way to the status quo?
- Does the existing set of qualifications and programmes meet the needs of the entire 16-19 cohort (across both technical and academic routes, segmented by achievement at GCSE)? Or is there a gap that should be filled by a new post-16 maths qualification?

The Group should consider the following when collating evidence and developing advice on the above set of questions:

- Maths study within and/or alongside Apprenticeships (joining up with the work of the Institute for Apprenticeships and Technical Education)
- Maths study within T Levels
- Core Maths qualifications
- Whether pupils studying A levels with maths embedded in them need to study an additional maths qualification
- Maths within and/or alongside other qualifications and programmes taken by young people aged 16-18 (taking into account the Government's reforms to many of these qualifications through its post-16 qualifications review)
- Functional Skills Qualifications
- The relationship between GCSE resits and technical/academic post-16 pathways
- International benchmarking and best practice (supported by separately commissioned research)

In parallel, DfE will consider the role that digital tools and platforms can play to support maths teaching and the Secretariat will identify opportunities to link this with the Group's work.

## Membership

The membership of the Group is as follows:

- Dr Maggie Aderin-Pocock MBE (Chancellor, University of Leicester)
- Peter Cooper (Executive Principal and CEO, Heart of Mercia Multi-Academy Trust)
- Lucy-Marie Hagues (CEO, Capital One UK)
- Professor Jeremy Hodgen (Professor of Mathematics Education, University College London)
- Simon Lebus (Non-Executive Chairman, Sparx)
- Tim Oates CBE (Group Director of Assessment Research and Development, Cambridge University Press and Assessment)
- Charlie Stripp MBE (CEO, MEI and Director, National Centre for Excellence in Teaching of Mathematics)
- Fionnuala Swann (Assistant Principal (Academic), Nelson and Colne College Group)

The Department for Education will have the final decision on changes to the membership of the Group.

## Process, Duration and Outputs

The Group is a direct appointment of the Secretary of State for Education. However, the Group will also be expected to regularly update the Prime Minister, facilitated by the Department for Education and No10.

The Group will conduct its work between April and July 2023. It may be asked to reconvene to consider new evidence or provide further advice on specific additional questions later in this parliamentary term.

After the initial phase of work on maths content and skills, the Group will meet with the Prime Minister and Secretary of State for Education in the summer to discuss their findings.

The Group will be supported by a secretariat comprised of DfE officials, which will agree with Members a forward look of meetings and workshops to enable evidence to be gathered and recommendations to be developed and refined. Most meetings will include the option to join remotely however in-person attendance will be encouraged at the first and final meetings as a minimum, both of which will be hosted by the Department for Education.

Members have been selected based on their specific expertise in relation to the questions listed above. In order to answer these questions fully, the Group will be expected to reach out to and draw on insights from wider networks (e.g. from across industry, academia and frontline provision). The Secretariat will help to facilitate this, including linking into existing DfE engagement groups with industry and employers.

The Group will produce written evidence and advice to the Prime Minister and Secretary of State for Education by the end of July 2023. This should reflect the collective view of Members, who are under no obligation to represent views shared with them over the course of their work with which they do not collectively agree.

The Group's work does not constitute a formal review, and it will not be asked to publish a report. Its recommendations will be for the Prime Minister and Secretary of State for Education to consider ahead of the development of future policy.

## **Confidentiality and use of official information**

Members acknowledge that their name and any relevant details may be published on the Department's website or on any other relevant government website.

Confidential information and data associated with emerging policy may be shared with members appointed to the group. Confidentiality is vital and members of the panel must treat confidential information appropriately. Members will not be expected to speak publicly on behalf of the Government.

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