

Debate Pack

16 May 2023 Number CDP-0109

By Nerys Roberts , Anastasia Lewis

National Numeracy Day

ı	Backgrouna	3
1.1	England	3
	Government policy on improving numeracy and mathematical skills	3
	Responses	5
	Mathematics attainment in compulsory education	7
1.2	Scotland, Wales and Northern Ireland	7
2	Parliamentary material	9
2.1	Commons Library briefings	9
2.2	Written Statements	9
2.3	Parliamentary Questions	9
3	News articles	15
4	Further information	15

Summary

A Westminster Hall debate has been scheduled for Thursday 18 May for National Numeracy Day. The debate will be opened by Bob Blackman MP.

National Numeracy Day

1 Background

Wednesday 17 May 2023 is <u>National Numeracy Day</u> across the United Kingdom. Explaining the need for a focus on numeracy, the charity, <u>National Numeracy says</u>:

As a nation, our numeracy levels are significantly below average for developed countries which costs the UK economy millions of pounds in unemployment, poor health, debt and the skills gap. Low confidence and competence with numbers disproportionately affects disadvantaged communities, with anxiety about numbers often passed on from generation to generation.

To stop this cycle and become an engine of social mobility, our focus is on encouraging people in communities where the need is greatest to take that first step. By breaking down confidence barriers and encouraging a growth mindset, we empower people to learn – whether to help with formal qualifications, career prospects, family life or financial well-being.¹

Scope of this briefing

This briefing largely focuses on developments in England, but provides some background on policy in Scotland, Wales and Northern Ireland.

1.1 England

Government policy on improving numeracy and mathematical skills

On 4 January 2023, Prime Minister Rishi Sunak announced his <u>commitment to</u> <u>making numeracy "a central objective of the education system"</u> and to have all children and young people studying some form of maths to 18.

On 17 April 2023, the Prime Minister reaffirmed this commitment to maths, announcing various interventions to improve attainment in addition to the 'maths to 18' plan. These include:

- A new advisory group to advise on the 'maths to 18' plan
- The expansion of 'Maths Hubs' across England
- A new professional qualification for those teaching maths in primary schools

National Numeracy website, <u>About us</u>, accessed 16 May 2023

Sunak has confirmed the reforms associated with <u>these interventions will not</u> be implemented until at least the end of the current parliament (2025).

Multiply

In October 2021, the <u>Government announced the Multiply programme</u>. This programme was launched in spring 2022 with the aim of improving adult numeracy skills across the UK through "bespoke adult numeracy programmes".

The Multiply programme is for:

- Adults who do not have a GCSE grade C/4 or higher in maths
- Employers who want to improve the skills of their staff

However, there have been reports of delays to the rollout, and inconsistencies in provision. In April 2023, FE News reported local authorities who applied for funding in the summer of 2022 <u>only received funding in December 2022</u>, resulting in the Government agreeing that underspend for the 2022-23 financial year could be carried forward to 2023-24.²

The initial announcement of Multiply included an online digital platform set to be launched in 2022. It was said this platform would give access to online numeracy training on demand, so learners could train flexibly. This platform would also signpost to any new courses in the local areas and provide an assessment of existing numeracy skills. In April 2023, the Guardian reported plans for this platform have been put on hold by the Department for Education.

More information about the Multiply programme can be found on the <u>Skills</u> For Life website.

Maths Hubs

In July 2014, <u>32 Maths Hubs were launched across England</u> by the Coalition Government. The Maths Hubs programme supports schools and colleges to improve maths education. These Hubs are mainly funded by the Department for Education, but other organisations sometimes sponsor specific programmes.

The Maths Hubs programme is coordinated by the National Centre for Excellence in the Teaching of Mathematics. As of April 2023, there are 40 Maths Hubs across England.

² "Multiply - The maths scheme that doesn't yet add up", Schools Week, 25 April 2023

The approach to maths across Maths Hubs is 'teaching for mastery'. There are several principles that underpin mathematical teaching for mastery, including:

- Mathematics teaching for mastery assumes everyone can learn and enjoy mathematics.
- Mathematical learning behaviours are developed such that pupils focus and engage fully as learners who reason and seek to make connections.
- Teachers continually develop their specialist knowledge for teaching mathematics, working collaboratively to refine and improve their teaching.
- Curriculum design ensures a coherent and detailed sequence of essential content to support sustained progression over time.

More information about mathematical teaching for mastery and the five big ideas in teaching for mastery can be found on the <u>National Centre for Excellence in the Teaching of Mathematics website</u>.

On 17 April 2023, <u>Baroness Barran announced an increase</u> in the number of schools supported by the Maths Hubs Teaching for Mastery programme.³ The Government committed to extending the programme to 75% of primary schools and 65% of secondary schools by 2025.

Advisory group on maths to 18

Prime Minister Rishi Sunak announced the establishment of a new advisory group of mathematicians, education leaders, and business representatives to advise the Government on "the core maths content that students need to succeed in future".

According to the group's terms of reference (PDF), between April and July 2023, the advisory panel is expected to collect and examine evidence from countries with high numeracy rates and employers across England. It is also expected to offer advice on the potential for a new maths qualification for people aged 16-18.

Responses

The 'maths to 18' plan has received a range of responses from other political parties and organisations in the higher education sector.

Written Ministerial Statement, 'Maths Update', 17 April 2023

Labour's shadow education secretary Bridget Phillipson responded to the maths to 18 plan with <u>concerns and criticisms about targets for maths</u> teacher recruitment and retention.⁴

The Liberal Democrats' education spokesperson, <u>Munira Wilson</u>, <u>described</u> the plan as an "empty promise" until teacher recruitment and retention is <u>addressed</u> by the Government.⁵

Association of Colleges chief executive David Hughes criticised the focus on ages 16-18 as "short-sighted". Hughes said efforts to improve numeracy should be targeted at a broader range of ages, with interventions needed from the early years to adult education. Hughes also emphasised the important role colleges currently play in the delivery of maths education to 16-18-year-olds and how further support and improved pay conditions are needed to sustain this. He said:

Three-quarters of 16 to 18 maths is delivered in colleges, so colleges are the crucial partner to delivering maths to 18. Our latest data shows 44% of colleges already struggle to hire enough maths teachers and with teachers in schools currently earning around £8,000 more than those in colleges, it is unlikely that struggle will ease any time soon.

Sharon Davies, the CEO of Young Enterprise, described the maths to 18 plan as a "welcome step" towards ensuring children and young adults are equipped with the skills needed for adulthood. Davies highlights that without maths skills, many are "hinder[ed] from reaching their full potential".⁷

Joint General Secretary of the National Education Union Kevin Courtney described the maths to 18 plan as "<u>a laudable aim... shared by school staff up and down the country</u>". However, he expressed concern about the "workforce crisis in education" of low recruitment and retention concluding that there are not enough teachers for this plan to come into fruition.⁸

Stian Westlake, the Chief Executive of the Royal Statistical Society, responded positively to the maths to 18 plan, describing it as "important and worthwhile" in light of the growing need for numeracy, statistical literacy, and data skills among young people. However, Westlake also noted this will "require significant reform and investment", particularly into training maths teachers.⁹

^{4 &}quot;Anti-maths mindset' costs UK a huge sum, Rishi Sunak claims", The Guardian [online], 17 April 2023

⁵ "Prime Minister reaffirms his ambition on teaching mathematics with Maths to 18", FE News [online], 17 April 2023

Association of Colleges press release, <u>Maths to 18: Focus is shortsighted and must be broader</u>, 17 April 2023

⁷ "Prime Minister reaffirms his ambition on teaching mathematics with Maths to 18", in FE News [online], 17 April 2023

⁸ National Education Union press release, <u>Rishi Sunak on maths education</u>, 4 January 2023

Royal Statistical Society press release, 'In response to the prime minister's proposal for all pupils in England to study maths until age 18', 4 January 2023 [link to PDF, 111kb]

Maths attainment at school

At GCSE in 2022, 69% of pupils in state-funded schools achieved a grade four or above (a 'standard pass') in both English and mathematics GCSE. The figure for disadvantaged pupils was 48%, but much higher for those not known to be disadvantaged, at 76%.¹⁰

1.2 Scotland, Wales and Northern Ireland

As noted above, Multiply funding is available across the United Kingdom. In Scotland, Wales and Northern Ireland, Multiply is being delivered as part of the single UK Shared Prosperity Fund (UKSPF) investment plan developed by areas.

Scottish Government policies supporting mathematics learning and numeracy skills include:

- Maths Week Scotland, funded by the Scottish Government and delivered by National Museums Scotland. In 2023, it will run between 25 September and 1 October.
- Funding for <u>Community Learning and Development (CLD)</u>, planned and delivered by local partnerships
- <u>A commitment to re-join</u> the Trends in International Mathematics and Science (TIMSS) and Progress in International Reading Literacy (PIRLS) studies, by 2026

On 21 March 2023, the Welsh Government published a plan for education and skills, <u>Our national mission: high standards and aspirations for all</u>. This included commitments to:

- Introduce Wales' first ever national charter for lifelong learning
- Carry out a new "State of the Nation' audit of adult literacy and numeracy, the first in over a decade", which would support policy development and interventions in lifelong learning.

In Northern Ireland, support for numeracy includes:

• The <u>Skills for Life and Work programme</u>, launched in September 2021, and aimed at young people with few or no qualifications. It is workbased, and covers literacy, numeracy and other key skills.

Department for Education, <u>Key stage 4 performance 2022</u>, underlying data, updated 2 February

Welsh Government, Our national mission: high standards and aspirations for all, 21 March 2023

• The <u>Union Learning Fund for Northern Ireland</u>, aimed at people in employment, and a <u>new online learning hub</u> developed in partnership between the Open University and the Northern Ireland Committee of the Irish Congress of Trade Unions

2 Parliamentary material

2.1 Commons Library material

'Maths to 18' Plan 28 April 2023 | Commons Briefing papers | CBP-9780

March 2022 schools White Paper (England) 05 April 2022 | Commons Briefing papers | CBP-9511

Constituency data: Educational qualifications, 2021 Census (England and Wales only) 17 April 2023 | Library Dashboard

2.2 Written Statements

Maths Update 17 April 2023 | Department for Education | HLWS697

2.3 Parliamentary Questions

Numeracy: Special Educational Needs

19 Jan 2023 | Written questions | Answered | House of Commons | 122194

Asked by: Catherine West

To ask the Secretary of State for Education, what discussions his Department has held with the provider of the Multiplication Tables Check programme to offer an access adaptation for Year 4 students who require additional time through a Education Health and Care or SEND support plan.

Answered by: Nick Gibb | Department for Education

The Multiplication Tables Check (MTC) assesses fluent recall of times tables. Pupils answer 25 times tables questions, with six seconds to answer each question. As a check of recall ability, the time available for each pupil to answer is a key element of the MTC.

A range of arrangements are available to support pupils with additional needs. Schools should explore which of these may be most appropriate to support pupils with education, health and care plans and special educational needs and disabilities (SEND) support plans in completing the MTC programme.

Although the check was designed to be accessible to most pupils, in exceptional circumstances, even with the use of the range of available

arrangements, headteachers may decide that some pupils will not be able to participate in the check.

If appropriate, a headteacher should discuss this decision with the pupil's Special Educational Needs and Disability Coordinator (SENDCO), educational psychologist, medical officer, or other specialist staff. When a pupil is not entered for the check, schools must explain the decision to the pupil's parents in advance. If appropriate, they should provide parents with documentary evidence to support the decision. To mitigate the effect on pupils unable to participate in the check, schools should also explain how they are helping the pupil with their multiplication tables.

Multiplication and division in a wider context will continue to be assessed through the Key Stage 1 and Key Stage 2 mathematics assessments, enabling further opportunity for pupils to demonstrate their understanding of multiplication tables.

Basic Skills: Standards

24 Nov 2022 | Written questions | Answered | House of Commons | 89915

Asked by: Feryal Clark

To ask the Secretary of State for Education, with reference to his Departments policy paper entitled Opportunity for all: strong schools with great teachers for your child, published March 2022, what steps her Department is taking to help 90 per cent of children reach the expected standards in literacy and numeracy.

Answered by: Nick Gibb | Department for Education

The Schools White Paper, published in March 2022, sets out the Department's policies to improve literacy and numeracy.

Since its launch in 2018, the English Hubs programme has provided targeted support to several thousands of schools across England. The 34 English Hubs in the programme are primary schools which are outstanding at teaching early reading. Over 1,000 schools which were underperforming in phonics have received intensive support, reaching approximately 50,000 pupils in Reception and Year 1. In addition to this, more than 5,000 schools have been supported through medium level support, which provides schools with targeted support, continuing professional development opportunities, and workshops focused on phonics and the teaching of early reading.

The Department is continuing to support and enhance mathematics teaching through the national network of 40 school led Maths Hubs, which are helping local schools improve the quality of their mathematics teaching based on best practice, covering all regions of England. This includes the £100 million Teaching for Mastery programme, which is bringing training on mastery teaching to 11,000 schools across England by 2023.

The Department published a list of approved phonics programmes in 2021 to support schools in choosing a phonics programme. This is together with the provision of £4 million additional funding in the 2021/22 academic year to eligible schools to support them in obtaining validated phonics schemes, whilst committing a further £8.7 million in the 2022/23 academic year to extend this nationwide. In 2021, the 'Reading framework: teaching the foundations of literacy' was published. This defines best practice for teachers and school leaders, and the introduction of specialist training to drive better literacy through a new National Professional Qualification for Leading Literacy and a new National Professional Qualification for Early Years Leadership.

Guidance has been published to support teachers in planning and prioritising the mathematics curriculum from Key Stage 1 to 3, which can be found here and here. This is alongside the establishment of two new support schemes through the Maths Hubs programme that will reach thousands of schools within their first year alone.

The Department will also be funding up to £180 million in the Early Years workforce, including training for Early Years practitioners to support literacy and numeracy teaching.

The Department recognises the importance of speech and language in young people's development and has funded £17 million to deliver the Nuffield Early Language Intervention programme, which supports children in Reception with their language ability. Over two thirds of eligible mainstream primary schools are taking part in this evidence based programme, benefitting around 90,000 children who are most in need of language support. Providing support for early language is a founding aim of the English Hub programme. In January 2023, the Hubs will begin delivering a new early language support scheme to schools which has been designed by Hubs and external experts.

Financial Services: Primary Education

07 Nov 2022 | Written questions | Answered | House of Commons | 71332

Asked by: Nadia Whittome

To ask the Secretary of State for Education, what steps his Department is taking to embed financial education in primary schools.

Answered by: Nick Gibb | Department for Education

The Department has introduced a rigorous mathematics curriculum, providing young people with the knowledge and financial skills to make important financial decisions. In the primary mathematics curriculum, there is a strong emphasis on the essential arithmetic knowledge that pupils should be taught. This knowledge is vital, as a strong grasp of numeracy and numbers will underpin pupils' ability to manage budgets and money, for example, using percentages. There is also some specific content about financial education, such as calculations with money.

Primary schools can choose to teach additional financial education content through external organisations but the Department does not monitor this. The Department trusts schools to use their professional judgement and understanding of their pupils to develop the right teaching approach for their school, drawing on the expertise and support of subject associations and other organisations that produce and quality assure resources.

There is a wide range of support available. For instance, the Money and Pension Service published financial education guidance for primary and secondary schools in England, to support head teachers and decision makers to enhance the financial education currently delivered in their schools. In addition, the Department, together with the Money and Pensions Service, will deliver a series of joint financial education webinars between January and March 2023, aimed at improving teacher confidence, skills and knowledge. This will provide a launchpad for further engagement with training and resources to support continuous improvement.

English Language and Mathematics: Education

24 May 2022 | Written questions | Answered | House of Commons | 2706

Asked by: Matt Vickers

To ask the Secretary of State for Education, what steps his Department is taking to support pupils who fall behind in maths and English.

Answered by: Mr Robin Walker | Department for Education

The recent Schools White Paper (SWP) set out a vision for a system that helps every child to fulfil their potential by ensuring they receive the right support, founded on world class literacy and numeracy.

The department's ambition, by 2030, is that 90% of primary school children will achieve expected standards in reading, writing and maths. The SWP also sets an ambition that the national GCSE average grade in both English language and in maths increases from 4.5 in 2019 to 5 by 2030.

Key to achieving these is providing targeted support for every child that needs it and we have made a pledge to parents that all schools will regularly assess their children to identify if they have fallen behind in English or maths, provide them with timely and evidence-based support if necessary, and keep parents informed on their progress.

To help schools in providing timely and evidence-based support to pupils who have fallen behind in English and maths, the SWP makes the following commitments:

 National Tutoring Programme (NTP): evidence shows effective tutoring can make a big difference to those that have fallen behind. The department has invested £1 billion to establish the NTP, which will deliver up to 6 million tutoring packages by 2024

- Education Endowment Foundation (EEF): the department will reendow the EEF with at least £100 million, lasting for at least the next decade. This will ensure that schools will continue to have access to the most recent, very best evidence on 'what works'
- Accelerator Fund: the department will also provide over £55 million to develop and scale-up the best-evidenced literacy and numeracy interventions
- Guidance on 'what works': the department has made it easier for schools to access the best evidence of 'what works' by introducing a menu of recommended evidence-based approaches. Further guidance on targeted support will be set out in due course

The department recognises that great teaching, high standards of behaviour and attendance, a strong curriculum, and a stronger school system will also have a key part to play in helping children to reach their potential in English and maths.

Primary Education: Basic Skills

08 Mar 2022 | Written questions | Answered | House of Commons | 132360

Asked by: Damien Moore

To ask the Secretary of State for Education, what steps the Government is taking to boost the percentage of children aged five achieving expected level on literacy, communication, and maths early learning goals as a supporting metric for mission 5 in the Levelling Up white paper.

Answered by: Will Quince | Department for Education

The government has reformed the Early Years Foundation Stage (EYFS) to help give children the best start in life. The reforms aim to improve outcomes for children at age five, particularly disadvantaged children, in the critical areas that build the foundations for later success, such as language development, literacy and numeracy. We are investing up to £180 million in early years education recovery.

Through investing in our English hubs and maths hubs programmes, we will improve the teaching of English and mathematics in schools, including for children in Reception. English hubs are currently delivering intensive support to over 1,000 partner schools, reaching approximately 50,000 pupils in Reception and year 1. Maths hubs programme includes our £100 million Teaching for Mastery programme, which is bringing mastery teaching to 11,000 schools across England by 2023.

To support schools to meet existing expectations on early reading, we published 'The reading framework: teaching the foundations of literacy'. The guidance is available to view

here: https://www.gov.uk/government/publications/the-reading-framework-teaching-the-foundations-of-literacy(opens in a new tab).

National Numeracy Day

3 News articles

DfE quietly shelves plans for £100m online adult learning platform Guardian

25 April 2023

<u>Sunak needn't worry – maths mania already has our schools in a stranglehold</u> Guardian 17 April 2023

Without maths, people are excluded from society New Statesman April 2023

Numeracy: How do we tackle maths anxiety?

TES

23 January 2022

Nearly half of secondary schools using non-specialists to teach maths schools Week
22 November 2022

Low adult numeracy is holding the UK back Financial Times 3 November 2021

4 Further information

Maths Hub

National Centre for Excellence in the Teaching of Mathematics

Numeracy support to boost maths skills for all the family Department for Education

<u>Our focus on literacy and numeracy – what it means in practice</u> Education Hub blog

Disclaimer

The Commons Library does not intend the information in our research publications and briefings to address the specific circumstances of any particular individual. We have published it to support the work of MPs. You should not rely upon it as legal or professional advice, or as a substitute for it. We do not accept any liability whatsoever for any errors, omissions or misstatements contained herein. You should consult a suitably qualified professional if you require specific advice or information. Read our briefing 'Legal help: where to go and how to pay' for further information about sources of legal advice and help. This information is provided subject to the conditions of the Open Parliament Licence.

Sources and subscriptions for MPs and staff

We try to use sources in our research that everyone can access, but sometimes only information that exists behind a paywall or via a subscription is available. We provide access to many online subscriptions to MPs and parliamentary staff, please contact hoclibraryonline@parliament.uk or visit commonslibrary parliament.uk/resources for more information.

Feedback

Every effort is made to ensure that the information contained in these publicly available briefings is correct at the time of publication. Readers should be aware however that briefings are not necessarily updated to reflect subsequent changes.

If you have any comments on our briefings please email papers@parliament.uk. Please note that authors are not always able to engage in discussions with members of the public who express opinions about the content of our research, although we will carefully consider and correct any factual errors.

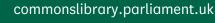
You can read our feedback and complaints policy and our editorial policy at <u>commonslibrary.parliament.uk</u>. If you have general questions about the work of the House of Commons email <u>hcenquiries@parliament.uk</u>.

The House of Commons Library is a research and information service based in the UK Parliament. Our impartial analysis, statistical research and resources help MPs and their staff scrutinise legislation, develop policy, and support constituents.

Our published material is available to everyone on commonslibrary.parliament.uk.

Get our latest research delivered straight to your inbox. Subscribe at commonslibrary.parliament.uk/subscribe or scan the code below:





@commonslibrary