List of consultation questions

About You

1. **What is your name?**

   Charlie Stripp

2. **What is your email address?**

   charlie.stripp@mei.org.uk

Please note: It is helpful to have your email address if we want to contact you about your answers to the questions in this consultation. You do not have to give your email address, and your views will be considered whether or not you give your email address.

3. **Are you happy to be contacted directly about your response?**

   Yes

Please note: The Department may wish to contact you directly about your responses to help our understanding of the issues. If we do, we will use the email address you have given above.

4. **Are you responding as an individual or on behalf of an organisation?**

   Organisation

5. **If you are responding as an individual, how would you describe yourself?**
(Options: A student, pupil or learner; A parent or carer; Teacher, tutor or lecturer; Researcher, academic or education expert; Employer; Careers professional/specialist; Other member of the public)

If more than one applies, please select the one that you think is most important to understanding your consultation response.

6. **If you are responding on behalf of an organisation, which of the following best describes who/which part of the sector your organisation represents?**

(Options: State-funded primary school, state-funded secondary school or sixth form, state funded special school or alternative provision, other state-funded school – e.g. middle school or boarding school, independent school, academy trust,16-19 academies, Further Education Colleges (including designated Institutions), Specialist Colleges, Higher Education Institutions, Independent Training Providers (i.e. private sector and third sector providers), Employer, A representative organisation or trade

association, Qualification awarding organisation, Charity, Local Authority, Government organisation/agency, Other (please specify))

7. What is the name of your organisation?

Mathematics in Education and Industry (often known as MEI)

8. What is your role within the organisation?

Chief Executive

9. Would you like us to keep your name and/or organisation confidential?

9a. Name

No

9b. Organisation

No

10. Would you like us to keep your responses confidential?

No

If yes, please explain why you consider it to be confidential.

Confidentiality
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or requires it. The personal information will be retained for a period of 12 months following the closure of the consultation period, after which it will be securely destroyed. You can read more about what the Department for Education does when we ask for and hold your personal information in our personal information charter, which can be found here: Personal information charter - Department for Education - GOV.UK (www.gov.uk)

Chapter 1

11. We propose several overarching aims and principles that should underpin the introduction and design of the Advanced British Standard. To what extent do you support these proposed aims and principles? If you have further views on this, please share below. *(Options: Fully support, Somewhat support, Neither support nor oppose, Somewhat oppose, Fully oppose, Don't know Free text box: 250 words)*

We support these aims and principles.

We suggest, in addition to supporting economic success, the reforms would gain wider support if the rationale was framed in terms of wider aims and purposes of education and the resulting benefits to society, as well as economic success.

We welcome the focus on increased time spent with a teacher. This will benefit disadvantaged students but will require supporting measures to be effective – notably to ensure sufficient suitably qualified teachers (see our response to question 44).

It is important that the reforms do not result in teachers having less planning time and/or less professional development.

In our experience, success in seeking to raise girls' participation in post-16 maths is achieved when the case for studying maths is based on a broad range of benefits, which are well understood by everyone, including teachers and the young people. This should be emphasised in the published policy.

It is difficult to 'move the dial' of girls' participation in maths without including mathematics as a standard part of the core programme. This is also likely to benefit other groups who may have less encouragement and confidence to choose to continue with maths.

12. What do you think is the most important thing that the Advanced British Standard could achieve? *(250 words)*

It moves us away from thinking about post-16 students taking discrete qualifications and establishes the idea of a balanced, purpose-driven programme within which maths has a vital place.

The ABS will improve opportunities for students from disadvantaged backgrounds by:

- allowing them to keep valuable options open for future study and employment; and
- giving them more teaching time.

13. If you have further views on the aims, principles and purposes of the Advanced British Standard, or anything else covered in Chapter 1, please share below. *(250 words)*

Chapter 2 – Section 1

14. We propose two main programmes at Level 3: Advanced British Standard and Advanced British Standard (occupational). Each will contain a range of separate components to support students. To what extent do you support the proposed design for the Level 3 Advanced British Standard programmes? If you have further views on this, please share below. *(Options: Fully support, Somewhat support, Neither support nor oppose, Somewhat oppose, Fully oppose, Don't know. Free text box: 250 words)*

We support commonality between the ABS and ABS (occupational) programmes by including maths and English in both.

We support an evolution of existing qualifications and programmes, as this will be crucial to successful implementation.

We recommend, however, that Level 3 maths qualification content is reviewed. There is scope to put right certain weaknesses, for example, teaching and assessment of the Large Data Set (LDS) in A level maths.

Given the prevalence and importance of data to society, the economy and technological innovation, we firmly believe that data analysis/data science should feature in the mathematical strand of the ABS for all students.

We support flexibility for students who need to attain or consolidate level 2 maths within the ABS to do so.

We strongly support allowing students to study four majors and one minor, as long as they include English and maths. This would facilitate students wishing to study two maths majors - in maths and further maths. This is crucial to the STEM pipeline.

15. We propose two main programmes at Level 2: transition and occupational. Each will contain a range of separate components to support students. To what extent do you support the proposed design for the Level 2 programmes? If you have further views on this, please share below. *(Options: Fully support, Somewhat support, Neither support nor oppose, Somewhat oppose, Fully oppose, Don't know. Free text box: 250 words)*

We support the flexibility of a one- or two-year programme with the possibility of progression to Level 3 or into work after the first year. Some students will change their aims over the course of the programme and this flexibility is helpful.

16. If you have views or evidence on how additional teaching hours at Level 2 could best be used to benefit students, please share below. *(250 words)*

17. If you have views or evidence on how a transition year could best be structured to support progression to Level 3, please share below. This could include reflections on the existing T Level foundation year. *(250 words)*

18. In branding terms, how do you think the Level 2 programmes should be considered in relation to Level 3 Advanced British Standard? *(Options: Both Level 2 and Level 3 programmes should be framed as the Advanced British Standard, with no level-based badge provided to students; Both Level 2 and Level 3 programmes should be framed as the Advanced British Standard, but it should be clear whether a student reached Level 2 or Level 3; Level 2 programmes should have a different name and framing, separate from the Level 3 Advanced British Standard; Don't know)*

19. To what extent do you support the proposal for Level 1 and Entry Level students? *(Options: Fully support, Somewhat support, Neither support nor oppose, Somewhat oppose, Fully oppose, Don't know)*

20. If you have views or evidence on how students at Level 1 and Entry Level would most benefit from additional teaching hours, please share below. *(250 words)*

Chapter 2 – Section 2

21. Once rolled out, we anticipate that the Advanced British Standard qualification framework will supersede the varied Level 3 qualification landscape for 16–19 year-olds (including A levels and T Levels etc.). If you have views on this, please share below. *(250 words)*

A level is a well-known brand and government should be cautious to do no harm.

One question is whether exam boards will be permitted to offer A levels to students not at state-funded schools and whether this would affect the value of the ABS if it was for state-funded students only.

22. To what extent do you support the proposal for how subjects will be selected to be included in the Level 3 Advanced British Standard programmes? *(Options: Fully support, Somewhat support, Neither support nor oppose, Somewhat oppose, Fully oppose, Don't know)*

23. To what extent do you support the proposal for how subjects will be selected to be included in the Level 2 programmes? *(Options: Fully support, Somewhat support, Neither support nor oppose, Somewhat oppose, Fully oppose, Don't know)*

24. If you have further views on how subjects will be included in these reforms at either Level 2 or Level 3, please share below. *(250 words)*

These reforms offer the opportunity to review the coherence of the maths curriculum, teaching, learning and assessment at this level to achieve a better fit between these areas.

To achieve coherence, we recommend that a curriculum-specialist organisation or group takes responsibility for reviewing current maths qualifications, potentially designing and trialling new approaches and reviewing implementation.

There are many end-users of maths and a potentially wide curriculum scope, so designing a small number of general qualifications which meet the needs of all students is a challenge - hence the need for expert input.

MEI's work on data science suggests that a course based on a combination of Core Maths and data science would be both valuable and motivating for many students.

25. To what extent do you support the proposal for increased teaching time relative to self-directed study? We particularly welcome any evidence of how this is balanced currently. *(Options: Fully support, Somewhat support, Neither support nor oppose, Somewhat oppose, Fully oppose, Don't know, Free text box: 250 words))*

We agree with increased teaching time, particularly for supporting disadvantaged students. We have concerns, however, that the overall effect of the ABS appears to be to increase self-directed study, with less time in the working day to accommodate this (i.e. self-study would be at home).

We are not convinced that this model of self-directed study is helpful for all students, particularly disadvantaged students, some of whom may face challenges learning at home, may be young carers or whose family depend on their income.

Well-organised schools and colleges foster a culture where free periods are used productively for self-study. In our view independent learning is important preparation for Higher Education but must be taught explicitly and supported effectively.

26. If you have views on the appropriate size of subjects, including whether we should standardise associated hours, please share them below. We particularly welcome any evidence of GLH delivered currently. *(250 words)*

It is important that all major subjects have the same number of guided learning hours; this needs to be 350 GLH to ensure an increase in teaching time relative to self-directed study.

The 10% cut in A level maths content would require careful thought, including a focus on what is needed for progression to further study in mathematics. Work on differential equations is the climax of the pure part of the course which brings it all together. Cutting this topic would damage coherence.

MEI has suggestions for what else might be done. This would need co-ordinating with other ABS subjects which use maths – STEM, social sciences, humanities.

Currently only 50% of the content in A level Further Maths is defined by the DfE with another 50% chosen by exam boards. Again, Further Maths Major content would need careful thought.

We support the view that a maths minor should be 175 GLH. Many students taking a maths minor would benefit from teaching time at the upper end of the scale.

27. If you have views or evidence on how time for employability, enrichment and pastoral (EEP) can best be used, please share below. We particularly welcome views and evidence about how to support students with additional challenges, e.g. lower prior attainment or the most disadvantaged. *(250 words)*

The careful use of this time is vital and will come out of a view on the purpose of education. We will not express a view on this.

28. If you have views on how we can encourage employers to offer industry placements and what further support education providers will require, please share below. *(250 words)*

Chapter 2 – Section 3

29. We propose that we develop the English and maths offer within these reforms around certain principles. To what extent do you support these principles? *(Options: Fully support, Somewhat support, Neither support nor oppose, Somewhat oppose, Fully oppose, Don't know)*

30. To what extent do you support using the proposed knowledge and skills identified for maths and English to inform these components of the Advanced British Standard? If you have further views on this, please share below. *(Options: Fully support, Somewhat support, Neither support nor oppose, Somewhat oppose, Fully oppose, Don't know. Free text box: 250 words)*

The mathematical qualifications need to serve as a preparation for further mathematical study, a sound foundation of quantitative/mathematical skills for other study and to provide maths skills needed for work and life.

All students, including those taking a Major in maths, should be enabled to apply their maths skills in line with the content and purpose of current Core Maths qualifications. It is important that all students leave 16-18 education able to apply their mathematical skills in unfamiliar contexts.

There is a cultural value to study of mathematics, just as there is for English; fluency with numbers and data also enable students to unlock areas of interest.

31. We propose that there will be a range of English and maths majors and minors at Levels 3. To what extent do you support this proposal? *(Options: Fully support, Somewhat support, Neither support nor oppose, Somewhat oppose, Fully oppose, Don't know)*

32. How can we best support students who have secured lower Level 2 passes in English and maths at 16 (e.g. grade 4 or 5) to progress onto Level 3 study in these subjects? *(250 words)*

It is important for students and teachers to understand the benefits of continuing with maths post-16. This can be reinforced by good qualification design and appropriate teaching materials.

For many students with grades 4 and 5 at GCSE a Maths Minor based on current Core Maths would be suitable to meet their aims and the quantitative demands of their other subjects. They may need initial support to allow them to start such a course successfully, particularly if they have taken Foundation Tier at GCSE.

We suggest that, in addition to a Maths Minor based on current Core Maths, there could also be a Maths Minor for students taking less quantitatively demanding other subjects which allows them to consolidate and use their mathematics - see our response to question 35.

33. If you have views on how English and maths can be delivered for students taking the occupational programme, please share below. *(250 words)*

We consider that it would be valuable for as many students as possible to take a maths qualification as part of their occupational programme. This benefits the students in three ways:

- a maths qualification provides information for future employers and HE and keeps doors open, whereas the choice of an occupational subject can limit options for the future;
- a well-designed maths qualification is a coherent course, whereas putting together the maths you need to support an occupational programme may not develop coherent and transferable mathematical knowledge;
- a well-designed maths qualification includes skills for everyday life, e.g. handling personal finances and data skills, which might not be in a course designed around the maths you need to support an occupational programme.

The numbers taking some occupational programmes may justify a bespoke maths course and help to ensure that programmes of study were coherent and motivating for students.

34. If you have views on how existing Level 2 qualifications (GCSEs and FSQs) could provide the basis for two-year Level 2 study for English and maths within the Advanced British Standard , please share below. *(250 words)*

MEI has done some work, funded by the Nuffield foundation, to design an appropriate post-16 qualification for students as an alternative to resitting current GCSEs https://mei.org.uk/reports/a-new-mathematics-gcse-curriculum-for-post-16-resit-students-main-report/ . It was designed for the current situation, but could be adapted to suit the needs of the ABS for students who have grades 1 or 2 at the end of KS4. Some key features are as follows.

- Content is based on quantitative skills which all adults should possess. This is mainly a subset of Foundation tier GCSE Maths content but with some additions such as financial applications and use of spreadsheets.
- It incorporates the GCSE name to ensure that it is understood clearly by stakeholders including employers and students.
- It is limited to (GCSE) grades 1 to 5 as this is a qualification designed for students resitting GCSE and is based on a truncated curriculum.
- It incorporates a stepping-stone assessment that can be taken before the final two papers to test basic skills and support student progress.

35. If you have further views on what students will study as part of the Advanced British Standard, or anything else covered in Chapter 2, please share below. *(250 words)*

The following proposals come from MEI's position paper on curriculum and assessment in mathematics at KS4 and KS5 https://mei.org.uk/reports/curriculum-and-assessment-in-mathematics-in-england-at-ks4-and-ks5/ These are for:

- A GCSE in 'essential maths', based on a reformed version of the current foundation tier to give all students the opportunity to demonstrate sound grasp of quantitative fundamentals.
- A second GCSE for progression to a level 3 Maths major.

Consideration should be given to whether the same assessment model at level 2 is appropriate for post-16 students as for pre-16 or whether a different assessment model would be more appropriate.

The attainment of students who achieve grade 3 in GCSE at KS4 can be similar to the attainment of students who achieve grade 4; consideration should be given to designing a Maths Minor which allows these students to consolidate their understanding of level 2 maths and then progress to achieve level 3 over the course of their post-16 studies.

This option might also be suitable for some students with a grade 4 or 5 in GCSE Foundation Tier maths who may not have sufficient mastery of level 2 maths to progress directly to a level 3 Maths Minor.

Chapter 3

36. We have proposed assessment principles to underpin the ABS. To what extent do you support these assessment principles? If you have further views on this, please share below. *(Options: Fully support, Somewhat support, Neither support nor oppose, Somewhat oppose, Fully oppose, Don't know. Free text box: 250 words)*

The most recent A level reforms happened over a number of years for all subjects, but the introduction of ABS requires all components to be available from the start. It is essential that review and improvement is built into the system.

The consultation covers digital solutions, allowing innovative assessment approaches. In mathematics this needs to include the use of digital technology to support the mathematics being done, particularly for handling data. This is already happening internationally.

Assessment and curriculum design need to be developed in parallel. For example, allowing spreadsheets in online testing would mean this could be better integrated into teaching and learning.

37. We have proposed principles to underpin the new grading system. To what extent do you support these grading principles? If you have further views on this, please share below. *(Options: Fully support, Somewhat support, Neither support nor oppose, Somewhat oppose, Fully oppose, Don't know. Free text box: 250 words)*

We broadly welcome these principles.

The current system has baked in unfairness at many points and research shows that in some A level subjects it is easier to achieve high or middle grades than others (starting from the same GCSE grade profile). There is a need to maintain standards and fix disparities between subjects.

To ensure that the overall ABS and its components are understandable to students and other stakeholders, we suggest a points scale for each qualification should be developed. This would allow students to understand the relative currency of different options in maths and other subjects.

38. To what extent do you support the proposal that students will receive individual grades/marks for each major and minor (or equivalents) studied within the Advanced British Standard? *(Options: Fully support, Somewhat support, Neither support nor oppose, Somewhat oppose, Fully oppose, Don't know)*

39. Do you agree that students should receive some type of overall Advanced British Standard award? If yes, what value could an 'ABS award' add on top of individual component grades, particularly for higher education providers and/or employers? *(Options: Yes, No, Don't know. Free text box: 250 words)*

For progression to selective universities, it is important that students have evidence of grades achieved in key subjects. It is important that grade profiles can be properly treated by universities making offers.

However, there will be some students who take less than the full ABS (perhaps due to long-term illness or because they take a minor as an adult or retake a major in year 14); there needs to be a way to recognise their achievement.

40. What minimum attainment conditions, if any, should a student need to achieve to receive a Level 3 Advanced British Standard award? *(Options: Pass all*

subjects at Level 3, except for English and maths (Level 2 pass accepted); Pass all subjects at Level 3, including English and maths; Pass a set proportion of subjects (e.g. 3 majors and 1 minor or 2 majors and 2 minors); Meet a minimum aggregate ABS score; No minimum attainment conditions; Don't know; *Another condition not listed above (please specify - 250 words))*

There should be a very small number of students who fail any post-16 qualification – a student who is guided to start an appropriate post-16 course from a suitable starting point at KS4, and who applies themselves reasonably, should pass.

In maths, they will pass an appropriate qualification which will show evidence of good progress since GCSE. Students should be enabled to change their maths option during the two-year ABS if their original choice proves too demanding.

41. Which of the Advanced British Standard award options outlined do you prefer and think would add most value? Please include any evidence if available. *(250 words)*

Students should receive a single certificate with grades for all the subjects they took which count towards an ABS award – a "school leavers' certificate". This would include students who took fewer than the usual number of qualifications and those who took more.

42. If you have further views on how students will be assessed and graded under these reforms, or anything else covered in Chapter 3, please share below. *(250 words)*

What matters most is how HE and employers make use of the grading scheme.

Chapter 4

43. What strengths in the current approach to 16-19 education should we aim to preserve under the Advanced British Standard? *(250 words)*

Stakeholders are positive about A levels, which carry cachet internationally and offer a depth of study which is a good preparation for university study; it is important not to lose this depth.

44. What opportunities and challenges do you see for the recruitment, retention and deployment of staff as a result of implementing the Advanced British Standard? *(250 words)*

Recruiting sufficient maths teachers, and retaining them, will continue to be a significant challenge. This is made more challenging by the closing down of maths departments in relatively low-tariff HE institutions – these departments provide proportionally more maths teachers than Russell Group universities.

HE policy measures to increase low-tariff maths course numbers are essential if we are to address the maths teacher recruitment problem.

There are potential opportunities to retrain more teachers of other subjects to teach some mathematics courses.

A proper career progression for maths teachers who want to stay in the classroom will also be essential to improve retention.

45. What staff training do you think may be required to implement the Advanced British Standard successfully? *(250 words)*

Our experience of the A level maths reform from 2017 was that there was good provision in place for training (and maths was in a good position in this regard) but that teachers have not been sufficiently able to take advantage of it – often because of the reluctance of their institutions to release them for training.

The outcome is that some teachers, indeed whole maths departments, have not been trained to deliver the new requirements of the current A level maths and the implementation of the new requirements, particularly around the use of large data sets and technology in statistics has been poor.

We believe that teacher-entitlement to ongoing, high-quality, subject-specific professional development is crucial.

46. We are interested in the changes that may need to be made to deliver the Advanced British Standard for all students, regardless of where they live. What changes do you think may be required in the following areas:

46a. Buildings/estates? *(250 words)*

46b. Technology? *(250 words)*

The requirements of the DfE content for A level maths around technology are largely ignored because assessment arrangements largely ignore them.

Incorporating technology into the assessment and curriculum needs to be supported by measures to ensure that appropriate technology is available to schools and colleges.

46c. Provider landscape? *(250 words)*

46d. Accountability arrangements? *(250 words)*

46e. Admissions? *(250 words)*

46f. Transportation? *(250 words)*

47. If you have further views on how the Advanced British Standard could impact 16-19 providers, or anything else covered in Chapter 4, please share below. *(250 words)*

Chapter 5

48. **What changes to pre-16 education do you think will be needed to create effective pathways into the Advanced British Standard?** *(250 words)*

It is important that young people are confident about their use of mathematics and enjoy learning the subject pre-16 if the ambitions of the ABS are to be met.

For too many students their mathematical diet is focused on preparation for exams in which they are not going to score many marks, rather than a curriculum in which they can succeed and which prepares them for the next stage.

Current GCSE maths needs review with the mindset that GCSE maths should no longer mark the end of maths education for any student.

49. **If you have views on how students can be supported to make informed choices about their Advanced British Standard programme or apprenticeship – linking to their prior attainment, abilities, interests and future ambitions – please share below.** *(250 words)*

Students, parents, schools and post-16 providers begin their discussions about post-16 programmes during year 10 or early in year 11. It will be vital for parents to understand the changes and options in the ABS at this point to ensure that young people can make informed choices.

Universities need to be clear about what they require in terms of qualifications for entry and preparation for study. Students in year 10 look at university websites, and rightly so, when they are considering post-16 choices – so universities will need to have sufficient information early enough to make public their requirements.

50. **If you have views or evidence on the additional support that may be needed to enable students with SEND to access the Advanced British Standard, please share below.** *(250 words)*

51. **If you have views or evidence on the additional support that may be needed to enable other groups of students to access the Advanced British Standard, please share them below.** Examples of these groups include disadvantaged students and students with caring responsibilities. *(250 words)*

52. **If you have views on how to ensure the Advanced British Standard provides effective pathways into post-18 education or study, please share below.** *(250 words)*

The depth of study in the current mathematics A levels needs to be preserved to ensure that the corresponding major provides effective preparation for HE; the availability of Further Maths is important to enable progression to mathematically based study at the highest levels.

53. **If you have views on how to ensure the Advanced British Standard reforms meet the needs of employers, please share below.** *(250 words)*

54. **If you have views on the impacts of the Advanced British Standard reforms on other groups of students who take post-16 qualifications, please share them below.** Examples of these groups could include adults in further and community education providers, students in custodial settings, and students in devolved administrations, Crown Dependencies or overseas. *(250 words)*

Students who would find it difficult to engage in a full-time ABS over two years, such as students with caring responsibilities or long term illness, may need support to undertake ABS over a longer period of time.

55. **If you have views on the impacts (positive or negative) of the Advanced British Standard reforms on any group with a protected characteristic, please share below.** *(250 words)*

If well-implemented, these proposals will benefit students, particularly those from disadvantaged backgrounds. What is most important is that courses are well designed and well-taught, and that students and stakeholders have a clear understanding of the benefits of this change.

56. **If you have views on the impacts (positive or negative) of the Advanced British Standard reforms on the environment, please share below.** *(250 words)*

57. **If you have further views on the wider implications of the Advanced British Standard, or anything else covered in Chapter 5, please share below.** *(250 words)*

58. **If you have further views on anything else associated with the Advanced British Standard not covered in the questions throughout the consultation, please share below.** *(250 words)*