

Department for Education Survey on the DfE Policy Statement on
16 to 18 Core Maths Qualifications

About You
Q1: What is your name?
Charlie Stripp
Q2: What is the name of your organisation (if applicable)?
Mathematics in Education and Industry
Q3: What is the best way to contact you about this survey? Please enter your contact details below:
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Characteristics of Core Maths Qualifications

Q4: What is your view on the proposed characteristics of core maths qualifications that will count towards the level three maths 16-19 accountability measure?

	Satisfied	Satisfied with minor amendments	No view	Not satisfied
Size	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Content	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grading	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External Assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Synoptic Assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Assessment Objectives	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Q5: Please use the free text box to tell us why you have selected your answers to the previous question about the characteristics of core maths qualifications.

Size: The intention that all students should continue to study mathematics for two years from 16 to 18 is welcome. However, it should be recognised that some students may wish to take AS Mathematics in year 13 in order to support further study, even though they initially embarked on Core Maths. There should be enough flexibility in the system to enable this to happen without penalising schools and colleges in terms of funding or performance table measures. It would be better if Core Maths were smaller than an AS level, perhaps 2/3 of the size of an AS, both to avoid over-crowding the curriculum and to help ensure that it is not viewed as an alternative to AS Maths, either by students or by schools and colleges. It would be highly counter-productive if the introduction of Core Maths led to a reduction in the uptake of AS Maths.

Content: The focus of Core Maths content in the three bullet points of the policy statement is right for the target students who have had some success with mathematics at GCSE but do not want or need to continue into A level study. It should be recognised that much of the bold Higher tier GCSE content is intended to facilitate progression to A level study and so is not appropriate for Core Maths. While it is appropriate for Core Maths

students to understand what calculus is and what it does, those who need to study calculus with a view to using it in engineering or physics should be doing Mathematics A level. Grading: A common approach to grading will be helpful for end users of the qualification. Given that the main objective is to get more students to do more mathematics and to avoid confusion with A level, a pass, merit, distinction scale seems more appropriate than any finer grading. External assessment: It is not clear what is meant by “non-examination methods assessed externally”. Is it the intention that the awarding organisation both sets and marks such tasks? Do they need to be completed under carefully controlled conditions? It is not clear how the 80% external assessment figure has been arrived at. The assessment of Core Maths needs to be valid; examinations which are very similar from one session to another and so do not encourage students to think will not achieve this. Synoptic assessment: The policy statement is right in wanting links to be made between different areas of mathematics but it is not clear what is meant by synoptic assessment in this context. If it means that all the content of a qualification must be assessed by the final assessment then this will be inappropriate. Any qualification which uses internal or non-examination assessment to assess use of technology in problem solving, for example, should not be expected to also include this in the final examination. Assessment objectives: It is not clear what is meant by “selecting appropriate mathematical techniques to understand a new situation”. If this means that students should be able to recognise problems which are related to ones that they have already solved then this is just what should be included in Core Maths but the wording needs to be improved in order to convey what is intended.

Other Considerations

Q6: What is your view on other considerations for core maths qualifications?

	Satisfied	Satisfied with minor amendments	No view	Not satisfied
Technology	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
University and Employer Role	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q7: Please use the free text box to tell us why you have selected your answers to the previous question about other considerations.

Technology: the use of technology is intrinsic to obtaining reasonably accurate solutions to many real problems which require mathematical analysis and also valuable for enabling students to gain insight into problems. However, the use of estimation is also an essential mathematical skill for citizenship and employment. Technology should be used only when it is appropriate to do so. University and employer role: it should be borne in mind that the requirements of different university courses in terms of mathematics can be very different, similarly for employers. It may be that some Core Maths qualifications gain more support from employers and others gain more support from universities. The potential scope for the mathematical skills to be included in Core Maths is quite wide.

Outline Timetable for Introduction and Teaching

Q8: What is your view on the outline timetable for the introduction and teaching of core maths qualifications?

Satisfied

**Satisfied with
minor
amendments**

No view

Not satisfied

Q9: Please use the free text box to tell us why you have selected your answer to the previous question about the timetable for the introduction and teaching of core maths qualifications:

The timescale for qualification development is very tight. No awarding organisation will want to develop a qualification that does not meet the requirements for performance measures, so final development needs to take place from March to July. This is a short timescale for development of a new type of qualification. Moreover, Ofqual's accreditation process may well take longer than envisaged as they need to find appropriate experts to scrutinise awarding organisation submissions. This is further complicated by the overlap with the GCSE Mathematics development timeline. Core Maths is completely new, and there are bound to be teething problems with the specifications in the first two or three years. To address this, provision should be made for specifications to evolve; streamlined administration procedures should be available to allow the awarding

bodies to amend their Core Maths specifications over the next few years.

Anything Else

Q10: What else should the Department for Education take into account when developing technical guidance for awarding organisations on core maths qualifications for inclusion in 16-19 accountability tables? **(Optional)**

The key question must be: Have students who have succeeded in the qualification developed useful mathematical skills for life and work?

