National curriculum review: new programmes of study and attainment targets from September 2014
If you would prefer to respond online to this consultation please use the following link: https://www.education.gov.uk/consultations

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information regimes, primarily the Freedom of Information Act 2000 and the Data Protection Act 1998.

If you want all, or any part, of your response to be treated as confidential, please explain why you consider it to be confidential.

If a request for disclosure of the information you have provided is received, your explanation about why you consider it to be confidential will be taken into account, but no assurance can be given that confidentiality can be maintained. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

The Department will process your personal data (name and address and any other identifying material) in accordance with the Data Protection Act 1998, and in the majority of circumstances, this will mean that your personal data will not be disclosed to third parties.

Please tick if you want us to keep your response confidential.

Reason for confidentiality:

Name: Professor Alice Rogers

Please tick if you are responding on behalf of your organisation.

Name of Organisation (if applicable): London Mathematical Society

Address:
The London Mathematical Society
De Morgan House
57-58 Russell Square
London, WC1B 4HS
If your enquiry is related to the DfE e-consultation website or the consultation process in general, you can contact the Ministerial and Public Communications Division by e-mail: consultation.unit@education.gsi.gov.uk or by telephone: 0370 000 2288 or via the Department's 'Contact Us' page.

Please mark the box that best describes you as a respondent.

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<th>Maintained primary school</th>
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Learned Society
Before answering specific questions 3 and 14 we would like to make some general points.

We appreciate the intentions of the National Curriculum Review, and welcome many elements of the revised curriculum, which builds on the strengths of the 1999 curriculum.

The Government response to the consultation conducted February – April 2013 did not address all the community’s clearly expressed concerns. Raising standards is not simply achieved by setting the bar high. The goal should be to set the bar slightly higher and at a level to which ordinary students and teachers can aspire, and then to provide the necessary support and encouragement to enable most to attain this new level. It is not evident from the Government response that it recognises the dangers of raising the bar in a way that leaves teachers and Senior Management believing they have to force students to grapple with material for which they do not have the necessary mathematical foundations. In mathematics this does serious damage from which students almost never recover.

We have related concerns with the implementation of the draft orders. While ‘greater school autonomy over curriculum and assessment’ may be a feature of successful school systems, not all schools in England have the capacity to confidently interpret the curriculum and develop good teaching materials. Providing curriculum guidance and teaching materials at a national or regional level does not prevent school autonomy; it allows inspired experts to spread their wisdom widely, and prevents wasteful fragmentation and duplication.

In our response to the National Curriculum Review earlier this year we expressed our concern that in addition to the curriculum, however well constructed, there should be guidance notes for teachers, so that the interpretation of the curriculum is not largely driven by anticipating tests. This remains our position. (These detailed guidance notes would be non-statutory, but would carry authority if developed by a strong and widely respected team.)

In mathematics new ideas must generally be encountered more than once before formal mastery is achieved; guidance notes and good teaching materials are needed to interpret the curriculum, to ensure that each new concept is gradually developed, rather than rushed into as a separate and identified ‘topic’ to be covered and then regarded as done.

We believe that collaborative projects should be funded which will allow those who can, and indeed have, developed rich teaching materials and effective internal assessment to make these widely available. The current state of the textbook market does not suggest that market mechanisms and commercial publishers will be sufficient to provide suitable textbooks and teaching materials. Too much of what is available is geared to directly ‘teaching to the test’ rather than building real understanding and appreciation of mathematics.
We continue to have concerns about the pace and general procedures of the review, and believe that a structure such as a properly funded curriculum committee for mathematics, with a rolling remit, would be a better mechanism for the construction, maintenance, monitoring and periodic review of the mathematics curriculum and related matters such as assessment.

1 Do you have any general comments on the draft Order?

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Comments:
3 Do you have any comments on the revised draft programmes of study or attainment targets for mathematics?

- Yes
- No

Comments:

On primary, much of the curriculum is carefully constructed, coherent and well thought out. However we remain concerned that the content is over-ambitious so that some of the more advanced topics will be taught mechanistically and the key basics may not be taught with the right depth and understanding.

Some of the material would be better included in guidance notes for teachers as possible enrichment and challenge material, rather than as part of the mainstream curriculum to be mastered by all. For instance, fractions with denominator 7 are explicitly included in the year 3 programme of study, which is clearly premature for almost all pupils.

At Key Stage 3 we are concerned at the low level of detail, which leaves the curriculum open to a wide variety of interpretation. This concern is amplified by the lack of assurance that key additional measures which we believe must go hand and hand with curriculum specification will be taken. (These measures, described in more detail in the preamble to this response, include guidance notes for teachers and teaching materials.)

14 Please let us have your views on responding to this consultation (e.g. the number and type of questions, whether it was easy to find, understand, complete etc.).

Comments:

We are concerned at the short duration of this consultation, particularly given its timing in the school year.
Thank you for taking the time to let us have your views. We do not intend to acknowledge individual responses unless you place an 'X' in the box below.

**Please acknowledge this reply.**

E-mail address for acknowledgement: education@lms.ac.uk

Here at the Department for Education we carry out our research on many different topics and consultations. As your views are valuable to us, please confirm below if you would be willing to be contacted again from time to time either for research or to send through consultation documents?

- **Yes**
- **No**

All DfE public consultations are required to meet the Cabinet Office Principles on Consultation

The key consultation principles are:

- departments will follow a range of timescales rather than defaulting to a 12-week period, particularly where extensive engagement has occurred before
- departments will need to give more thought to how they engage with and consult with those who are affected
- consultation should be ‘digital by default’, but other forms should be used where these are needed to reach the groups affected by a policy; and
- the principles of the Compact between government and the voluntary and community sector will continue to be respected.

Responses should be completed on-line or emailed to the relevant consultation email box. However, if you have any comments on how DfE consultations are conducted, please contact Carole Edge, DfE Consultation Coordinator, tel: 0370 000 2288 / email: carole.edge@education.gsi.gov.uk

**Thank you for taking time to respond to this consultation.**

Completed responses should be sent to the address shown below by 8 August 2013

Send by post to: Carole Edge, Department for Education, Area 1C Castle View House, East Lane, Runcorn, Cheshire WA7 2 GJ

Send by e-mail to: NCRlegislativeCONSULTATION@education.gsi.gov.uk