

**London Mathematical Society**

**Response to OFQUAL Consultation on New A Level Regulatory Requirements**

**Information pages**

About you

Are the views expressed in this consultation your personal view or an official response from the organisation you represent? (tick one only)\*

- Personal views  
 Official response from an organisation/group (complete the type of responding organisation)

If you ticked 'personal views', are you a ... (tick one only)

- Student  
 Parent/carer  
 Teacher (but not responding on behalf of a school)  
 Educational specialist (retired teacher, examiner, assessment expert, subject expert, governor) please state capacity  
 General public (interested in education but no direct link) – please state capacity

If you ticked 'official response from an organisation or group', please respond accordingly.

Type of responding organisation (tick one only)\*

- Awarding organisation  
 Government department/agency or organisation  
 Local authority  
 University or higher education institute  
 Employer  
 School/college (please complete the next question)  
 Other representative group/interest group (please skip to type of representative group/interest group)

School/college type

- Academy and/or free school  
 Comprehensive  
 State selective  
 Independent/private  
 Special school  
 Further education  
 Sixth-form college  
 None of the above (please state what)

Type of representative group/interest group

- Group of awarding organisations
- Union
- Business representative group
- Equality organisation/group
- Subject associations/learned societies
- School or teacher representative group

Other representative/interest group (please state what)

Nation\*

- England
- Wales
- Scotland
- Northern Ireland
- Other EU country (please state which)
- Non-EU country (please state which)

\*Denotes mandatory fields

## Preliminary Comments

*This response relates to A-level in Mathematics and Further Mathematics. We have responded to questions 1,2 and some of 61-80, the remaining questions relate to the particular subjects covered in this consultation. Before answering specific questions we would like to make some general points.*

*We have various concerns with this consultation, and its implicit assumptions:*

- *Over the past year or so there have been several consultations relating to GCSE and the national curriculum as well as to A-level. The policies to which they relate are interconnected, but the approach has been fragmented.*
- *Yet again, we would like to express our regret that there is currently no national structure for the coherent development of an integrated curriculum and assessment policy for mathematics. We do not believe that good policy development is possible without this, and we feel that the many organisations such as our own which are prepared to offer their considerable and valuable experience and expertise will feel a continuing sense of frustration that their best efforts are likely to be dissipated.*
- *We do not propose to go into a detailed blueprint here, and we are not recommending the resurrection of QCA as such, but this consultation does once again flag up the need for some such structure. Countries with which we would like to be internationally competitive do appear to have well-developed mechanisms which are able to work over an appropriate timescale, one which is clearly decoupled from the political cycle.*
- *This consultation assumes radical change to the structure of A-level, including both decoupling AS level from A-level and 'linearity' i.e. the requirement that all examinations be taken at the end of a qualification. We are very unhappy with this, and hope that for mathematics special arrangements can be made\*. In particular we do NOT believe that AS should on the short time scale envisaged become a free-standing qualification that cannot contribute to the award of an A level. We believe that for the time being assessments taken for the award of an AS SHOULD also be able to be used for the award of the A level.*
- *We are happy that AS-level should continue to be available as a free standing qualification, but believe it must also be able to contribute to A-level.*
- *We believe that in mathematics, which has many special features, the best assessment of achievement for the upper grades, particularly the A\* grade, is made by supplementary synoptic papers such as AEA and STEP. Such papers, which contain problems on A-level content which require thinking in new ways and linking different ideas, can motivate good teaching and learning. Existing papers could be supplemented by some in the same style but rather easier than STEP I and AEA. WE STRONGLY RECOMMEND THAT A WORKING GROUP BE SET UP TO DEVELOP THESE IDEAS.*
- *We are shocked that the move to linearity is being made without first analysing the effect of removing January modules. Such failure to use readily available evidence is truly disturbing.*

***WE REQUEST THAT SPECIFIC ARRANGEMENTS BE MADE FOR MATHEMATICS WHICH TAKE ACCOUNT OF THE OVERWHELMING ADVICE FROM THE COMMUNITY, AND TAKES NOTE OF CONCERNS THAT FITTING MATHEMATICS INTO THE PROPOSED GENERIC FRAMEWORK MAY UNDO THE CONSIDERABLE RECENT PROGRESS IN INCREASING POST 16 UPTAKE OF MATHEMATICS AND FURTHER MATHEMATICS.***

\*Particular features of Mathematics, which mean that generic examination arrangements may not be appropriate, include:

- 1) Because Mathematics is required for the study of a wide range of subjects, those taking AS-level and/or A-level Mathematics will be following a variety of pathways and will be a less homogenous group than that for some other subjects.
- 2) In Mathematics the actual questions determine the difficulty of an examination in advance of it being sat, there is a limited amount which can be done by adjusting marking schemes after the event. This means even quite modest changes can have a bigger and more unpredictable effect than in many other subjects. It also means that any particular paper can only effectively assess a rather limited range of ability an achievement, and cannot easily provide appropriate assessment for the wide range of candidates.

## Consultation questions

### Section 2: Background – The objective of AS qualifications

1. To what extent do you agree with the proposed objective of the AS qualifications?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- See comment

2. Do you have any further comments relating to this section?

*While we agree with many of the objectives, these generic objectives are not entirely appropriate for a subject such as mathematics which underpins study in many areas, and develops intellectual skills which transfer to virtually all areas of learning.*

*We strongly disagree with the statement in 5.7 that 'In contrast to the A level, it is not a purpose of the AS qualification that it should support progression to higher education. It is not, therefore, essential that skills students should have demonstrated before they enter a higher education programme in a particular subject are assessed by the corresponding AS qualification.'*

*AS-level mathematics must be designed to support progression into higher education in all subjects where mathematics is used (with the possible exception of mathematics itself) given that AS-level may be the highest level to which mathematics is taken, and that it is a subject which supports learning in so many areas. There is no conflict between this requirement and requiring AS mathematics to support progression to A-level mathematics, which we also believe is essential.*

*The importance of studying mathematics beyond GCSE is widely recognised, as is the fact that such study will be at widely different levels and in differing volumes. This is reflected in the existence of two A-levels, (Mathematics and Further Mathematics) and also a developing level 3 qualification, Core Mathematics, which sits outside A-level. We thus expect that when the specifications for AS-level and A-level Mathematics and Further Mathematics are developed the objectives for these qualifications will be explicitly specified and go beyond generic features.*

### Section 4: Assessment strategies

64. To what extent do you agree that exam boards should be required to develop and apply assessment strategies for A levels and AS qualifications?

- Strongly agree
- Agree
- Disagree
- Strongly disagree [See comments below]
- Don't know/no opinion

65. To what extent do you agree that our proposed requirements for an assessment strategy are appropriate?

- Strongly agree
- Agree
- Disagree
- Strongly disagree *[see comments below]*
- Don't know/no opinion

#### Question types

66. To what extent do you agree that we should require exam boards to include in their exams questions that provide opportunities for students to gain marks by demonstrating their ability to:

- a) integrate and apply their knowledge, understanding and skills across different aspects of the subjects;
- b) construct a response which develops a sustained line of reasoning, is coherent, relevant, comprehensive and logically structured?

- Strongly agree *[See comments below]*
- Agree
- Disagree
- Strongly disagree
- Don't know/no opinion

67. Do you have any further comments relating to this section?

**64: The assessment strategy should be built into the criteria, it should not be something to be developed by individual examination boards.**

**65: It is not clear how subject expertise will be used, and used in a transparent way, to construct, review and monitor assessment strategies. This must be built into the procedure.**

**66: In Mathematics and Further Mathematics proof and problem-solving should also be required**

#### **Section 5: AS qualifications**

68. To what extent do you agree that where AS content is identified within the A level content it should be used as the basis for developing the new AS qualification in the same subject?

- Strongly agree *[See comments below]*
- Agree
- Disagree
- Strongly disagree
- Don't know/no opinion

69. To what extent do you agree that where no AS content is prescribed, we should require the content to be drawn from the A level content in the same subject?

- Strongly agree
- Agree
- Disagree

- Strongly disagree [*See comments below*]  
 Don't know/no opinion

70. To what extent do you agree that AS qualifications should be assessed at a level of demand appropriate to the knowledge, skills and understanding to be reasonably expected of someone who had completed the first half of the A level course of study?

- Strongly agree  
 Agree [*See comments below, our agreement is qualified*]  
 Disagree  
 Strongly disagree  
 Don't know/no opinion

#### Teaching AS students with A level students

71. To what extent do you agree that our regulations should not prevent qualifications from being designed so that AS and A level can be co-taught, providing the design of a good quality, linear A level is not compromised as a result?

- Strongly agree [*See comments below, more than simply not preventing is required*]  
 Agree  
 Disagree  
 Strongly disagree  
 Don't know/no opinion

73. Do you have any further comments relating to this section?

**68: AS-level should be explicitly identified within A-level content, and all AS-level content should also be A-level content.**

**69: the meaning of question 69 is obscure. Clearly AS-level content must be prescribed. Some vague statement about half a course is quite inadequate, as well as not what is desirable.**

**70: in saying that AS-level should be appropriate for a student who has completed the first half of the A level course of study, it must be recognised that the cumulative benefits of the second year of study means that less than half the actual material will be assimilated during the first year of a two year sixth-form course. (Failure to recognise this would mean that the mistakes made with curriculum 2000 would be repeated.)**

**71: it is ESSENTIAL that AS-level mathematics and further mathematics can be co-taught with A-level. Indeed current arrangements should be maintained, rather than those now proposed where AS-level papers cannot contribute to A-level. In contradiction to the position taken in 5.6, we believe that assessments taken for the award of an AS SHOULD also be able to be used for the award of the A level.**

#### **Section 6: Conditions of Recognition for A level and AS qualifications**

74. Do you have any comments on our proposed Conditions?

**Condition 6.18 again sets out the possibility that AS-level content might not be specified. As we have said above already, in Mathematics and Further Mathematics AS-level content should be specified, but must be part of the A-level content.**

***Condition 6.19 seems obviously necessary, to the point of tautology.***

How our proposals fit within our regulatory framework

75. To what extent do you agree that A level and AS qualifications should be subject to an accreditation condition?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Don't know/no opinion

76. To what extent do you agree that the accreditation criterion we should apply when we decide whether or not to accredit A level and AS qualifications should be as follows:

The awarding organisation must demonstrate to Ofqual's satisfaction that it is capable of complying, on an ongoing basis, with all of the General Conditions of Recognition that apply in respect of the qualification for which it is seeking accreditation, including all relevant Qualification Level Conditions and Subject Level Conditions.

- Strongly agree ***[but see comments below, as these are far from sufficient conditions]***
- Agree
- Disagree
- Strongly disagree
- Don't know/no opinion

77. Do you have any further comments relating to this section?

***Any awarding body must be able to demonstrate vastly more than these minimal conditions.***

## Follow up/information sharing

We use quotes from responses to highlight views expressed in the consultation document. It is helpful to attribute those quotes to specific organisations. We will not name individuals. If you do not want us to attribute your organisation to the quote, please opt out by ticking the box below

Do not attribute my name/organisation to the quote

Please only respond to the next statement if you have ticked 'no' or 'don't know' above.

We intend to forward your response to Department for Education where your comments are relevant to Department for Education's consultation. If you do not want us to do this, please opt out by ticking the box below

Do not share my response with Department for Education

## Personal data

For the purposes of the Data Protection Act, we are the data controller for any personal data you supply in response to this consultation. We will process all personal data (such as your name, address and any other identifying information) in accordance with the Data Protection Act 1998. In most circumstances, this means that your personal data will not be disclosed to third parties.

Please do not:

- provide information in comments boxes that might identify you unless you are content for that information to be released into the public domain; or
- provide information in your response that might lead to the identification of other living individuals.

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Would you be happy for us to contact you again in relation to this consultation response?

Yes

No



## Additional information

How did you find out about this consultation?

- Ofqual's newsletters or website
- Media/press
- Internet search
- Department for Education (newsletter or website)  Awarding organisations / exam boards
- Subject associations / learned societies
- Schools / headteacher / local authority
- Other (please state)

We want to write clearly, directly and put the reader first. Overall, do you think we have got this right in this document?

- Yes
- No

Do you have any comments or suggestions about the style of writing? We wish to make our publications widely accessible. Please contact us if you have any specific accessibility requirements.

***The problem is not simply the clarity of style; some questions relate to specific subjects, or only apply to the subjects directly included in this consultation, others are intended to apply more widely. However one has to pick through the entire consultation to find those which are generic.***

***Possible answers to questions are too limited, and insufficient opportunity for comment is available. In each case any agreement may be qualified, and any disagreement may need to be explained.***

***A further irritation is that there was no editable word template document for writing this response, we had to create our own. Responding online is not an appropriate method for an organisation which needs to consult with its members.***

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