

Isabel Nisbet
Chief Executive



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Dear Sir Alan,

GCSE Science criteria: mathematics skills requirements

Firstly, my sincere apologies for the delay in my reply to your letter of 23 February regarding the production of the mathematics skills requirements for GCSE Science Criteria and the involvement of the SCORE nominees. I can confirm that SCORE suggested Royal Society of Chemistry, Society of Biology and Institute of Physics nominees to take part in the work, although the Institute of Physics nominee did not attend the meeting. The meeting did include three subject experts chosen by Ofqual on behalf of the regulators. The meeting was chaired by Roger McCune from CCEA, the Northern Ireland regulator and supported by staff from Ofqual.

In advance of the meeting, participants were sent the draft mathematics requirements document produced by QCDA and copies of the six GCSE Science Criteria documents. They were asked to review the mathematics requirements against those for the relevant science as identified in the criteria. They were also asked to submit any views in writing before the meeting to enable everyone to consider the issues arising effectively and efficiently.

At the meeting, consideration was given to each of the six science criteria documents covering the range of GCSE qualifications in science and the relevant mathematics requirements that would support courses of study based on the new criteria. As part of this consideration, each of the participants referenced relevant information and examples from the preparatory work they had undertaken to support the inclusion or exclusion of any of the mathematics requirements in the draft QCDA document or to propose additional requirements.

At no point in the meeting did any of the representatives express dissatisfaction with the process or the outcomes. Indeed, there was a pleasing and reassuring level of consistency between all involved. We are, therefore, somewhat surprised to read your concerns about the activity that was undertaken and the outcomes reached. The draft documents arising from the meeting were circulated to all attendees. Whilst there were

some concerns expressed about details, the only general reservation expressed after the meeting was from the RSC nominee about one list of requirements meeting the needs of all science qualifications. All feedback received was reviewed carefully in the light of the discussions and agreements reached at the meeting. No points of feedback were ignored but, as you will understand, where there is a difference of view a decision still has to be made.

You suggest that the preamble to the requirements may enable awarding organisations to disregard some or all of the skills required. We do not believe this is the case. The requirements clearly state 'awarding bodies must ensure that their assessment materials properly reflect these mathematical requirements, assessing the full range of mathematical skills over a reasonable period of time.' Whilst we do not expect each set of assessment materials to cover all the requirements at each assessment opportunity, there is no mandate to disregard any part of them. We believe that this addresses your concern.

Likewise, you suggest that the requirements document does not make it clear that GCSE science examinations must include using mathematics in context. Again, we do not believe this is the case. The requirements clearly state 'the requirement for specifications to provide learners with the opportunity to develop their skills in communication, mathematics and the use of technology in scientific contexts' and 'assessment materials must contain opportunities for candidates to demonstrate scientific knowledge using appropriate mathematical skills.' We believe that this is a clear requirement for mathematics to be used in the context of science.

I trust that you are reassured that the views of SCORE nominees were appropriately sought and included in the production of this document and that your concerns about the positioning of the mathematics requirements have been carefully addressed. These requirements will be considered as part of the accreditation process. It is our firm intention to ensure that the awarding bodies implement them properly.

We note your proper concerns over the point at which SCORE became involved in this process and the lack of consultation on the resultant requirements document. We will ensure that better arrangements are put in place in future developments.

We are grateful for your commitment to the development of current and robust criteria and appreciate your indication of willingness to be involved in future work. We are keen to work constructively with SCORE. As you know, my colleague, Dennis Opposs, attended part of the SCORE meeting you chaired on Monday 22 March. I understand that the discussions at that meeting provide a useful starting point for setting up a future working relationship. Dennis and his colleague, Janet Holloway, will be maintaining contact with Rosalind Mist on an on-going basis to take that forward

Yours sincerely

Isabel M. Nisbet

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