

6-9 Carlton House Terrace London SW1Y 5AG

tel: +44 (0)20 7451 2252

email: score@score-education.org web: www.score-education.org

1 May 2015

Glenys Stacey, Chief Regulator Ofqual Spring Place, Herald Avenue Coventry CV5 6UB

Dear Glenys,

SCORE response to Ofqual consultation - GCSE reform: regulations for science

Thank you for the opportunity to be able to comment on the regulations around the new GCSEs in the sciences. We are looking forward to supporting Ofqual and awarding bodies on implementing these changes, and to hearing Ofqual's plans for how the impact of the reforms will be monitored.

Assessment objectives

As I have said in previous correspondence, we are pleased you have taken account of our concerns about the weightings of mathematical skills in the assessment of the sciences. However, it is not clear how the new weightings have been arrived at, and we cannot equate the suggested percentages with the mathematical skills implicit in the curriculum of each subject area and the types of question style in the proposed papers until samples are produced. We would therefore like to see the evidence you have used to inform this decision.

We also feel that the allocation of 10 per cent to biology does not reflect the quantitative nature of the subject, and would reinforce a perception that biology is 'easier' than the other sciences. An allocation of 15 per cent might be more appropriate, but only with an emphasis on the questions on those areas of mathematics that are particularly important in biology, including size and scale, data handling and statistical analysis of results. The use of mathematics in practical work is particularly important and we would hope to see this reflected in the questions used to assess both mathematical skills and practical work.

We would also like Ofqual to commit to require the assessment of all mathematical requirements over a two to three year cycle to ensure they are all taught, and carry out monitoring to ensure assessment across awarding organisations matches the requirements of the specifications. SCORE published a research report on mathematics in science A-levels taken in 2010 which may be of interest.

Practical science statement

We raised some concerns about the assessment of practical work in our response to your previous consultation. While we are pleased to see Ofqual is taking measures to secure the provision of practical work in schools, we would like some clarity on how Ofqual and the awarding organisations will define 'reasonable steps' taken by schools to ensure students have had the opportunity to undertake appropriate activities. We would also like to see confirmation of measures in place to protect students if, through no fault of their own, they have not been able to complete practical activities set by the awarding organisation, and can therefore not access the 15 per cent of marks allocated to this part of the specification.

We have suggested previously that deliberate malpractice should be dealt with at school level, rather than impinge on student results or result in teacher sanctions, and be linked to school performance measures. It would be useful to know if the the discussions between Ofqual and the Department for Education on this matter have been fruitful.

Yours sincerely

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Professor Julia Buckingham SCORE Chair