

Professor Becky Francis CBE
CAR Review
Sanctuary Building
Great Smith Street
London
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22 November 2024

Beyond the call for evidence: The Royal Society of Biology seeks opportunity to deliver evidence and recommendations to the review panel

Dear Professor Francis,

The Royal Society of Biology has been preparing for curriculum reform in England for the last ten years, since the last round of reforms. RSB's experience of the last round of curriculum reform was that it was not well evidence based, was rushed, and missed an opportunity for excellence by not necessarily drawing on the expertise of our community. In response to this, the Society has convened a Curriculum Committee¹ of experts in primary, secondary and tertiary teaching, assessment and teacher training, and has drawn on research and best practice to form recommendations and a vision for biology education that aims to improve biology teaching and learning for all young people.

During this period RSB has worked with awarding organisations, regulatory bodies and governments to inform development of new qualifications, adjustments to existing specifications, and improvements to biology and science education for all young people. Therefore, RSB is uniquely placed to comment on what works well and identify issues in the current system, provide evidence-based recommendations and a long-term view of education for biology and the sciences. RSB's education policy development is informed by biology and science teachers, school and university student voice, a broad range of biology specialisms through its Member Organisations, Education Policy Advisory Group, and the expertise of a wide variety of individual Members, Fellows and others as part of our Biology Education Research Group², new Teaching Policy Advisory Group, Education and Science Policy Committee and Council. RSB also meets regularly with science organisation partners through the Science Education Policy Alliance to discuss, collaborate and coordinate policy messaging.

The Royal Society of Biology has submitted³ a more detailed response to the current call for evidence, and takes the opportunity in the appendix to this letter to highlight some of our main priorities for this stage of the review.

The Royal Society of Biology looks forward to the outcomes of the panel's interim report, and would be keen to deliver further evidence, advice and policy recommendations to the panel regarding the 5-19 biology curriculum and assessment. RSB has been part of a similar process in Wales, and will shortly join the curriculum improvement cycle in Scotland as a stakeholder for the sciences. The Society is well prepared and ready to put our work into action in England.

Yours Sincerely,



Professor Dudley E. Shallcross OBE FRSB
RSB Curriculum Committee Chair

¹ <https://www.rsb.org.uk/about-us/committees/biology-curriculum-committee>

² https://www.rsb.org.uk/images/pdf/Case_study_4_Education_Policy.pdf

³ https://www.rsb.org.uk/images/edpol/RSB_response_to_Curriculum_and_Assessment_Review_England_2024.pdf

Appendix: The Royal Society of Biology's priorities for curriculum and assessment reform

The Royal Society of Biology's education policy priorities⁴ set out two overarching aims to support high quality teaching and learning in the biosciences:

- All young people should have an unbroken chain of experts teaching in the science disciplines
- All young people should experience curricula and assessments which prepare them to be scientifically literate, able to make scientifically informed choices, and ready them for a diverse and evolving world of work.

In the context of the current curriculum and assessment review, RSB recommends:

- **The panel should prioritise inclusion of the sciences in the comprehensive 5-19 curriculum and assessment review.** RSB has noted that while reading, writing, maths and broader subjects of music, art, sport and drama are highlighted in the terms of reference for the panel and the call for evidence – the sciences are not. This is of particular concern as alongside English and Maths, Science is the only other subject that is a core subject in the National Curriculum up to 16.
- **Subject voice, subject organisations and representative bodies, must be at the centre of curriculum reform.** The Royal Society of Biology is uniquely placed to advise the panel, having prepared and published 5-19 biology curriculum recommendations, framework and learning progression exemplifications over the last few years, alongside further explorations of transferable skills, practical activities, ecology, sustainability education and primary science⁵.
- **Alongside partners in other science organisations, RSB advocates for a single route through the sciences at GCSE** - a new GCSE that will better prepare all learners for life, work and future studies in a variety of pathways. The existing inequitable system of the dual route (Combined Science GCSE and “triple science” route of Biology, Chemistry and Physics GCSEs) should not be replicated in the future qualifications pathways.
- **Less content, more time for depth and skills** - RSB understands that the panel has already heard from a wide variety of stakeholders that GCSE specifications are overburdened. We regularly hear from teachers and partner organisations that this is particularly true in Biology GCSE and the biology component of the Combined Science GCSE. Along with the majority of schools starting GCSE teaching for the sciences in Year 9, the Key Stage 3 curriculum also becomes overburdened through squeezing a three year programme of study into two years. RSB's Evolving 5-19 Biology⁶ makes recommendations for better 5-19 learning progressions that can reduce content and support transition between key stages and prepare all learners whether they continue to study biology or the sciences post-16, go into science-related careers, and as healthy, informed citizens that are able to make informed choices about their life, health and the world.
- **Inclusive and engaging primary science** - At primary level, we draw the panel's attention to a Framework for a Future Primary Science Curriculum and Developing a Primary Science Curriculum. These documents set out a vision for an inclusive and engaging primary science programme of study, drawing on every day experiences, supporting children to develop understanding for global citizenship, age-appropriate scientific knowledge children need by age 11 and examples of essential experiences and conceptual boundaries of the primary curriculum.

⁴ https://www.rsb.org.uk/images/RSB_Education_Priorities_2023-2028_Final.pdf

⁵ <https://www.rsb.org.uk/news/better-biology-and-science-education-for-all-young-people-across-the-uk>

⁶ www.rsb.org.uk/curriculum