

Cyflwynwyd yr ymateb hwn i ymchwiliad y [Pwyllgor Plant, Pobl Ifanc ac Addysg i weithredu diwygiadau addysg](#)

This response was submitted to the [Children, Young People and Education Committee inquiry into Implementation of education reforms](#)

IER 03

Ymateb gan: Y Gymdeithas Fioleg Frenhinol

Response from: Royal Society of Biology

Nodwch eich barn mewn perthynas â chylch gorchwyl yr ymchwiliad. | Record your views against the inquiry's terms of reference.

The Royal Society of Biology is a single unified voice for biology: advising Government and influencing policy; advancing education and professional development; supporting our members, and engaging and encouraging public interest in the life sciences. The Society represents a diverse membership of individuals, learned societies and other organisations. Individual members include practising scientists, students at all levels, professionals in academia, industry and education, and non-professionals with an interest in biology.

One of the priorities of the Society is to support Biology education at all levels through the stages of compulsory schooling, into further and higher education and beyond with training and professional development opportunities for the biosciences community. We recognise teachers in schools and universities with teaching awards and the Chartered Science Teacher (CSciTeach) professional register and support teachers membership of this through our professional development programme. We have produced and collated resourcesⁱ which help support the teaching of biology and the biosciences in schools, colleges and universities and also develop content for students.

We actively engage with education policy through formal consultation responses, convening special interest groups and collaboration and coordination with other scientific organisations (education prioritiesⁱⁱ, collaborative work, policy responsesⁱⁱⁱ etc) As such, The Society has regularly engaged with Qualification Wales throughout all stages of the current education reforms; including taking part in discussions during the development phases of Curriculum for Wales, additionally we are member of the Areas of Learning Experience (AoLE) network and provide input regarding the new qualifications. As part of this engagement, the Society, alongside the Institute of Physics (IOP) and the Royal Society of Chemistry (RSC) wrote a joint letter from the



CEO's of our organisations to the Cabinet Secretary for Education in Wales in 2018 (unpublished).

The Royal Society of Biology are submitting a response to the consultation based on the three relevant areas of the consultation:

- Implementation of the Curriculum for Wales in early years settings, primary and secondary schools.
- The level of consistency and equity of learning opportunities for pupils across Wales, given the flexibility for schools to develop their own curricula within a national framework.
- The associated reform of qualifications to align with the Curriculum for Wales.

Regarding the level of consistency and equity of learning opportunities for pupils across Wales, the Royal Society of Biology strongly advocates for **a compulsory requirement for all students to study the sciences until age 16** and would seek reassurance that the teaching and assessment of biology will be compulsory for all students within this age range in Wales to ensure that they are not disadvantaged from progressing onto routes relating to the biosciences at post 16. It is critically important that pupils in Wales are qualified for a future, not only within Wales, but beyond and that students in Wales, who take the new science GCSE, are not disadvantaged in comparison to students in England, Scotland or Northern Ireland.

The RSB **welcomes the proposal for a single-route for the sciences at GCSE that is equitable in size to two GCSEs (or 240 guided learning hours)**. The Society holds the view that all students should have equitable access to high quality study of the sciences and that the best way to achieve equity of learning opportunities is through the creation of a single-route at Key Stage 4; removing the need for students to make decisions at the age of 14 that could limit their future choices.

Regarding the implementation of the Curriculum for Wales, the RSB is pleased that Qualification Wales is considering **reporting separate grades for each of the science disciplines** and would advocate that specialist teachers are deployed to teach each of the disciplines, with the exception of the proposed interdisciplinary element, to provide the best quality of delivery of biology education. Rational behind our position was shared with Qualification Wales in our response ¹to their consultation in April 2021.

¹ https://www.rsb.org.uk/images/Qualification_Wales_consultation_response.pdf



To ensure successful implementation of the Curriculum for Wales, the RSB would recommend that considerations for schools' resources and infrastructure are of utmost importance throughout the implementation of the reforms and that a robust package for resources, equipment and CPD are delivered to support the introduction of the new qualification in a timely manner to ensure that schools can confidently and effectively deliver the curriculum.

Regarding the reform of qualifications in Wales, the RSB continues to have concerns about the lack of prescription in the published new Curriculum for Wales² and about the timelines involved in developing the qualification, which may provide barriers to expert input to the process and increase the risk of errors and omissions. The *RSB's Evolving 5-19 Biology: recommendations and framework for 5-19 biology curricula*³ sets out our view of a cohesive and coherent 5-19 bioscience education and has been informed by research and evidence. The RSB would welcome further opportunities to engage with Qualification Wales to develop detail for specifications using our curriculum framework to inform this process.

The RSB views practical work and the development of practical skills and the assessment of them as essential and must be an integral part of all biology taught in schools and colleges. Practical work should be understood as an integral part of answering the big question '*How do we study the biological world?*' and learners should have the opportunity to encounter a range of practical skills appropriate to their stage of education.

ⁱ [RSB education and teaching resources.](#)

ⁱⁱ [RSB education priorities 2017-2022](#)

ⁱⁱⁱ [RSB consultation responses](#)

² <https://hwb.gov.wales/storage/b44ad45b-ff78-430a-9423-36feb86aaf7e/curriculum-for-wales-guidance.pdf>

³ [Evolving 5-19 Biology: recommendations and framework for 5-19 biology curricula](#)

