

Education priorities 2017 - 2022

This document outlines several important areas that the Royal Society of Biology have identified as priorities for biology education.

Teaching workforce

We need to recruit and retain more teachers and the professional status of teachers must be raised at primary, secondary and tertiary levels. This could be achieved through:

- development of a UK wide strategy for recruiting excellent teachers which addresses nationwide and local recruitment issues in schools and colleges
- continued support for and development of excellent initial teacher training programmes in universities and schools
- development of a strategy to support the retention of our excellent teachers in schools and colleges
- ensuring **all** teachers have a recognised teaching qualification or are working towards one
- enabling **all** teachers to have access throughout their careers to support and professional development opportunities, including subject specific CPD to ensure subject knowledge is up to date
- targeted support for primary school teachers to increase their confidence and skills as teachers of science
- development of teacher networks to enable collaboration throughout the teaching community
- encouraging best practice based on education research, and routes to embed research in practice.

Practical Science

Practical work and the development of practical skills are highly valuable; they must be an integral part of all biology taught in schools and colleges, and bioscience courses at universities. There is therefore a continued need for:

- funds that support the resourcing of practical subjects in schools, colleges and universities
- opportunities for students to do wider investigative project work and fieldwork encouraging participation in outdoor learning experiences
- accountability measures to ensure that students are given equal access to practical experiences
- monitoring of the changes that have taken place relating to practical work in schools and colleges

Curriculum development

A period of stability is needed to allow teachers and students to adapt to any changes that occur across the curriculum during reforms.

Evidence should be gathered on the impacts of education reform including:

- monitoring the amount and quality of practical work taking place in schools in the science subjects
- uptake of Science Technology Engineering and Maths (STEM) subjects post 16 and post 18
- impact on preparedness for entry into tertiary education and the workforce
- numbers of students entering STEM careers and training¹

Technical and Vocational Education

It is important that there is parity of esteem for technical, vocational and academic pathways that enable students to successfully enter a bioscience career.

- there must be clear career progression pathways through the technical routes

Careers Education

To ensure there is an appropriately qualified bioscience workforce, there needs to be excellent and consistent careers provision from primary through to tertiary education and beyond. This must include:

- support for schools and colleges to implement the recommendations in the Good Careers Guidance Report¹
- stronger relationships between schools, colleges and the National Careers Service, with every secondary school and FE College having a Careers Plan.
- relationships built between schools, universities and industry to demonstrate the range of bioscience careers available
- a range of appropriate role models to encourage students to understand the range of career opportunities within and from the biosciences;
- high quality initial teacher education and CPD for teachers in providing careers support, including up to date information on labour markets and on the range of post-16 and post-18 courses available. This should also include information on non-degree routes into bioscience careers, such as apprenticeships.

Maintaining High Standards

In order to maintain consistently high standards across formal education there is a need to have:

- research informing best practice within education at all schools, colleges and universities.
- accreditation of degree courses to ensure high quality experiences for students
- valuing teachers in schools, colleges and universities
- suitable accountability measures in place
- more subject specialist teachers in secondary schools teaching post-16 biology

Widening participation

There must be equality of access to academic, technical and vocational routes into the biosciences for all. To encourage people to enter the biosciences we should be:

- encouraging the scientific community to be involved with public engagement
- highlighting excellent informal education opportunities
- making sure barriers to accessing the biosciences are identified and strategies put in place to combat the issues.

1. The 'Good Career Guidance' report published by the Gatsby Foundation, recommends that every secondary school should be responsible for publishing the destinations of all pupils for three years after their leaving date. Holman, J. (2014). Good Career Guidance. The Gatsby Foundation, London