Education priorities

This document outlines several important areas within the education sector that require future focus by government, institutions, learned societies and other stakeholders.

Teaching workforce

The professional status of teachers must be raised at primary, secondary and tertiary levels. This will be achieved through:

- 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
- development of a UK wide strategy for recruiting and retaining excellent teachers

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

Curriculum development

A period of stability is needed to allow teachers and students to adapt to the changes that have occurred across the curriculum during the recent 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
- numbers of students entering STEM careers and training[1]

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:

- 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 providing careers support and resources, enabling teachers to reference and signpost students to a variety career paths including both academic and vocational routes into the sciences.

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
- accountability measures in place

Widening participation

There must be equality of access to academic 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.