SCORE - Education and Professional Development Policy

This paper sets out what the seven organisations that collectively constitute SCORE (***S***cience ***Co***mmunity Pa***r***tnership Supporting ***E***ducation) believe to be the purpose of each phase of education from age 5 to 19 and of professional development for those who teach these age ranges. The paper also summarises associated broad policy aims and lists objectives.

There are a number of overarching principles that influence our policies and our statements, whether pro-active or reactive:

- Policy is based on evidence and established good practice.
- There is a need for close links between education, training and employers.
- Teachers and technicians have an entitlement to and an obligation to participate in Continuing Professional Development (CPD).
- Science educational initiatives often work best when initiated and driven by science teachers.
- Schools and colleges must have an adequate supply of appropriately qualified science teachers and technicians and appropriate funding for facilities and other resources.
- We recognise and celebrate the achievement of students and their teachers.
- We support the endeavours of professional scientists working to improve the teaching of science in schools and colleges.
- The teaching profession needs to benefit from good practice in other countries and to contribute internationally.

Policy is pursued at all levels including engagement with Government ministers, contribution to the work of Government agencies and awarding bodies and supporting teachers and technicians.

The following sections summarise what we consider to be the key purposes of the particular phase of education or professional development, and our policy aims and objectives.

1. Primary (5-11 years)

Purpose

- Stimulate curiosity and provide understanding of the animate and inanimate world.
- Provide an introduction to the processes of science.

Policy

- We work to maintain the place of science within the curriculum.
- The curriculum covers both process and content.
- Science teaching requires suitable provision for practical work.
- Teachers need to have appropriate subject knowledge and resources.

We

- support teachers' subject knowledge and provide worked teaching and learning activities;

- illustrate to children the importance of science in everyday life and as a career;
- support locally delivered activities across the UK.

2. Secondary (11-16 years)

Purpose

- Enhance the role of science in the education of students as present and future citizens.
- Stimulate interest in the further study of science and careers resulting from science.

Policy

- We work to secure the place of science within a broad and balanced curriculum.
- The curriculum should be taught in a relevant and engaging manner and enable students to study science at a higher level.
- Teachers should be graduate scientists and, when teaching 14-16 year-olds, should have the appropriate specialism(s) within science to teach one or more of biology, chemistry and physics.
- Science teaching requires good laboratory facilities and appropriately trained technicians.
- Students should have available to them informed guidance on science courses and career options.

We

- modernise curricula;
- work to secure the supply of science teachers with appropriate specialisms within science;
- support teachers' subject knowledge through publications, in-service education and training;
- provide worked teaching and learning activities;
- support science teachers preparing for subject leadership positions;
- illustrate the importance of science in everyday life and as the basis for a career;
- produce and disseminate careers information and advice to students, teachers and parents;
- run events to promote science;
- support locally delivered activities;
- contribute to the activities of other organisations;
- commission research and gather evidence to inform policy and activities.

3. Secondary (16-19 years)

Purpose

- Educate the next generation of science-based professionals.
- Stimulate an interest in further study of the sciences and careers based upon them.

Policy

- We work to increase the numbers of students studying the sciences at this level.
- Biology, chemistry and physics should exist as subjects in their own right.
- Teachers should be subject specialists in biology, chemistry or physics.
- Science teaching requires specialist laboratory facilities and technicians.

- The curriculum should enable students to study the sciences at a higher level.
- Students should have available to them guidance on course and career choices.

We

- modernise curricula
- work to secure the supply of specialist biology, chemistry and physics teachers;
- provide subject-based support for the teaching of biology, chemistry and physics;
- support the range of study programmes available;
- support locally delivered activities;
- run events to promote the sciences;
- produce and disseminate information and advice to students, teachers and parents;
- illustrate the importance of the sciences in everyday life and as the basis for careers;
- support students, and their parents, in applying to higher education.

4. Professional Development

Purpose

- Maintain and develop the knowledge and skills required for continuing professional practice.

Policy

- All science teachers and technicians should have an entitlement to CPD support from their employers and have an obligation to maintain competence.
- There should be incentives for employers to provide CPD opportunities and for employees to take advantage of these.
- Systems for public funding and approval for CPD courses and qualifications should be transparent and straightforward.

We

- help provide a framework for science teachers and technicians to determine, plan and record their professional development;
- provide opportunities for CPD;
- provide recognition to teachers and technicians through qualified membership, and/or including chartered status, and specialist qualifications;
- ensure and recognise competence in ‘licence to practice’ and other key areas.

5. Education Policy

Purpose

- Maintain standards, ensure equality, increase efficiency and improve outcomes in science education through the decisions of Government and its agencies and by influencing other policy makers and influencers.
- Through law, and the actions of public bodies, set strategic direction with regard to science education for the curriculum, assessment, teacher training, teacher support, school funding and school management.
- Help build a commonality of vision within the science community.

Policy

- Education policy should be based on sound evidence and consultation with stakeholders, and be adequately trialled before implementation.
- A positive impact on young people and teachers should be the main consideration when changing and/or influencing education policy.

We

- work in partnership, combining resources and intelligence, to commission and assess evidence for policy decisions;
- offer a mechanism for open and constructive dialogue between Government, its agencies and key organisations in the science education community;
- engage with the wider stakeholder community in science education policy wherever possible;
- anticipate and monitor the impact of policy, and speak publicly and independently on issues of greatest concern.

Association for Science Education
Biosciences Federation
Institute of Biology
Institute of Physics
Royal Society
Royal Society of Chemistry
Science Council

May 2007