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Next generation of scientists could be lost say key science organisations

The next generation of scientists could be lost if urgent, concerted action is not taken to address the major challenges facing science education, a new partnership of scientific learned societies, science teachers and other key science organisations – brought together by the Royal Society – said today (Tuesday 26 September 2006).

The unprecedented partnership – **S**cience **Co**mmunity Pa**r**tnership Supporting **E**ducation (SCORE) – which has been announced today, aims to address the serious problems, such as the decline in numbers of young people taking A-level physics and the unacceptable shortages of specialist teachers in physics and chemistry in our schools and colleges.

The founding members of SCORE are the Institute of Physics, the Royal Society of Chemistry, the Institute of Biology, the Biosciences Federation, the Science Council, the Association for Science Education and the Royal Society.

Professor Martin Taylor, Vice President of the Royal Society, said: "We have a window of opportunity in the next five years to ensure that we stem the decline in the sciences. If we get this wrong, we risk losing a generation of scientists. We need young people to be inspired by the sciences and mathematics so that they choose these subjects in sufficient numbers to ensure that the UK's economy prospers and that we retain our place as a world leader in science and technology.

"The Government won't reap the returns from its significant investment in scientific research unless we have a workforce able to formulate great ideas and turn them into reality, and that takes not just expert scientists but a whole raft of technicians, managers and support staff with a sound science education.

"While there are clearly no easy answers, SCORE will provide the Government with a coherent voice from the scientific community, advising on how to best address some of the key issues facing science education.

"Science education is facing troubled times. In particular, at A-level Physics is under siege. This year A-level entries in physics reached a new low with a massive 37 per cent fewer students choosing to take the subject than in 1991. And the Government also faces huge challenges concerning getting more specialist science teachers into schools, with figures published last month showing that PGCE applications for initial teacher training in the sciences and mathematics are down on last year."

Peter Main, director of education and science at the Institute of Physics said: "With the formation of SCORE, we are creating a stronger coherent voice for the science education community. Our aim is to build upon the recent upturn in the number of young people continuing to study mathematics after GCSE level and extend that trend to science. We welcome the opportunity to work with the other organisations involved in SCORE. This will give us all the chance to pool our ideas of ways to deal with the current problems in schools, such as the lack of specialist teachers and good careers advice. SCORE will also help us to talk to government with a much more unified voice and help them achieve the ambitious targets that were set for teacher recruitment in the 'Next Steps' document."

Professor Alan Malcolm, Chief Executive of the Institute of Biology, said: "While Biology as a subject is not at the same crisis level as other sciences, it is vital that it is underpinned by a good understanding of physics and chemistry. That means we need more good teachers in these subjects."

Richard Dyer, Chief Executive of the Biosciences Federation said: "The co-ordination of our initiatives and activities with those of other organisations will increase the effectiveness of all our individual contributions. For this reason, the BSF is delighted to be part of the SCORE initiative"

Diana Garnham, Chief Executive of the Science Council said: "Science and its applications will play a vital part in our ability to tackle issues such as the sustainable environment, improving human health and wellbeing and increasing wealth creation so it is important that we both encourage young people to sign up for science education, and that we support them with good teaching in a good environment. We have to make this a higher priority if we are to increase the numbers of talented scientists and science literate individuals in the UK workforce."

Derek Bell, Chief Executive of the Association for Science Education said: "Ensuring high quality science education is available to all young people requires a clarity of purpose and strong support for both our teachers and pupils. The Association for Science Education is therefore very pleased to be a full member of the SCORE partnership and to play its part in creating a climate in which science and science education in the UK can flourish."

NOTES FOR EDITORS

1. The Royal Society is an independent academy promoting the natural and applied sciences. Founded in 1660, the Society has three roles, as the UK academy of science, as a learned Society, and as a funding agency. It responds to individual demand with selection by merit, not by field. The Society's objectives are to:

   - strengthen UK science by providing support to excellent individuals

- fund excellent research to push back the frontiers of knowledge
- attract and retain the best scientists
- ensure the UK engages with the best science around the world
- support science communication and education; and communicate and encourage dialogue with the public
- provide the best independent advice nationally and internationally
- promote scholarship and encourage research into the history of science

2. The Institute of Physics is a scientific membership organisation devoted to increasing the understanding and application of physics. It has an extensive worldwide membership (currently over 35,000) and is a leading communicator of physics with all audiences from specialists through government to the general public. Its publishing company, Institute of Physics Publishing, is a world leader in scientific publishing and the electronic dissemination of physics.

3. The Royal Society of Chemistry is the UK Professional Body for chemical scientists and an international Learned Society for the chemical sciences with some 43,000 members worldwide. It is a major international publisher of chemical information, supports the teaching of the chemical sciences at all levels and is a leader in bringing science to the public.

4. The Institute of Biology is the professional and charitable body charged by Royal Charter to further the study and application of the UK's biology and allied biosciences. It has 13,500 members and over 50 specialist learned Affiliated Societies

5. The Biosciences Federation is a single authority representing the UK's biological expertise, providing independent opinion to inform public policy and promoting the advancement of the biosciences.

5. The Association for Science Education (ASE) is the largest subject association in the UK with a membership which includes teachers, technicians and others involved in science education. The Association plays a significant role in promoting excellence in teaching and learning of science in schools and colleges. Working closely with the science professional bodies, industry and business, ASE provides a UK-wide network bringing together individuals and organisations to share good ideas and tackle challenges in science teaching, develop resources and foster high quality Continuing Professional Development. Further details of the ASE and its regional, national and international activities can be found at its website www.ase.org.uk

6. The Science Council is a representative membership body for professional and learned organisations across the spectrum of science and its applications and it aims to promote the members' collective knowledge, resources and achievements. Membership comprises the core subject societies of physics, biology, chemistry and mathematics, as well as specialist discipline institutes and professional organisations. Through its member bodies the Science Council now represents some 400,000 practicing scientists in academia, the public sector, industry and commerce who are working across all areas of science: in health, engineering, technology and the environment.

For further information contact:

Sue Windebank

Press and Public Relations

The Royal Society, London

Tel: 020 7451 2514/2510