

Bringing a global dimension to the science classroom

Today we have record numbers of air travellers with many British people now regularly hopping over to New York for a spot of shopping. The pressures on our airports and our environment to satisfy this spiralling demand are just one small illustration of how we all live increasingly global lives. We could equally well mention fast food and obesity in young people or perhaps the latest mobile phone technologies connecting people the world over. To understand the complexities of such issues and their differing effects around the globe from a moral, ethical, economic and political dimension, young people require some understanding of the science and its applications behind it all.

The Government clearly recognises the importance of developing global perspectives so that young people have an understanding of the world and their role within it. It has hugely increased funding to support development education over recent years and prompted curriculum innovation such as citizenship and education for sustainable development. The recent *Sustainable Development Action Plan for Education and Skills* from the DfES and the OfSTED report on *Taking the first step forward... towards an education for sustainable development: Good practice in primary and secondary schools* indicate that there is plenty of scope to develop international perspectives within the science curriculum too.

However, it is sometimes difficult to see how such global perspectives can easily and effectively be incorporated into the science teaching and learning that takes place daily, when we are all already squeezed to cover the content required.

Science: the global dimension is a recent ASE publication in partnership with the Development Education Association (DEA), which illustrates the value of bringing global perspectives to science lessons, and gives confidence and ideas to teachers in doing this effectively.

Examples and recommendations from colleagues are often very valuable when introducing new ideas into the classroom. This issue of *EiS* features personal accounts from science teachers who have had the opportunity to develop a global dimension to their work from professional development experiences abroad.

Rosemin Najmudin's fascinating account (page 8) shows how her experiences as a Voluntary Service Overseas (VSO) teacher in Zimbabwe transformed her teaching back in the UK. She provides a wealth of manageable ideas for integrating global perspectives, often just changing the contexts to illustrate scientific concepts. I particularly like the simplicity of her practical work using everyday objects which pupils can relate to.

Chris Wiskin explores recent developments of science education in Singapore in meeting future economic needs (page 10). He makes some interesting comparisons with science education in the UK and speculates, in particular, on the value of e-learning, which is pertinent as the DfES is currently consulting on this subject.

On page 13, Alan Roberts shares experiences of his research on scientific misconceptions in a German school and how these may differ between countries.

All these accounts illustrate the value of first-hand experience. Each year the DfES Teachers' International Professional Development Programme provides opportunities

for teachers in England to experience good educational practice around the world and share expertise with colleagues. The General Teaching Council for Wales also funds international visits.

Not everyone has the possibility for professional development overseas and opportunities do exist closer to home, e.g. the full day of talks and workshops with global science themes at the International Day at the ASE Annual Meeting.

ASE is committed to facilitating a global dimension in science education. Our award winning Science Across the World programme enables pupils to explore science locally and then share their insights globally. There are currently more than 2,500 teachers with their pupils from over 60 countries involved in structured communications on varied topics including diet and health, energy, biodiversity and global warming. Science Across the World is developed and managed in partnership with GlaxoSmithKline. And this month, the DfES and the British Council launch their Global Gateway website, which will enable schools across the world to engage in creative partnerships. The aim is to provide best practice in international projects and curriculum partnerships, as well as professional development.

The ASE International Committee supports global initiatives and acts in an advisory capacity, providing regular news updates in *EiS*. On this occasion the Committee Chair, Lynne Symonds, gives a personal account of a meeting of Commonwealth Education Ministers, and reminds us of our responsibility as teachers and that science can be viewed differently in different societies.

ASE Global is an ASE website development, stemming from our partnership with the DEA. The Hot Issues section provides regular and up-to-date news articles with a global perspective for general classroom discussion activities.

Over recent months, ASE has collaborated with the DEA and the Wulugu Project in providing successful CPD workshops on Globalising Science Education (see page 30). This is part of the DfES and Wellcome Trust's Creative Science programme and we hope that such courses, with a global emphasis, may form an integral part of the future CPD provision by the network of the Science Learning Centres.

So, with the increasingly global nature of our lives comes an array of support from ASE and others for bringing global perspectives into the science classroom. The indications are that with a little forethought and confidence the global dimension can form a natural and regular part of teaching to enrich the learning experiences of our young people today.

References

- ASE and DEA (2003) *Science: the global dimension*.
 Website: www.ase.org.uk/html/ase_global/index1.php
 DfES (2003) *Sustainable Development Action Plan for Education and Skills*. Website: www.dfes.gov.uk/sd/
 DfES and the British Council (2004) *Global Gateway*.
 Website: www.globalgateway.org.uk
 OfSTED (2003) *Taking the first step forward... towards an education for sustainable development*.
 Website: www.ofsted.gov.uk/publications/

Marianne Cutler

Marianne Cutler is Director of Curriculum Development at ASE.