

Enhancing experiences of science

Getting the student experience of science 'right' is something that I am sure we are all trying to achieve. Indeed this is probably why we came into teaching in the first place. We are, therefore, trying to ensure that what is available is engaging and seen to be relevant. For some students relevant means the work should be 'applied'. For others it is the need for some 'personal link', discussion of 'ethical issues', hearing about a scientific discovery or investigating something they personally find fascinating. To achieve this, we need to build flexibility into our teaching and, where possible, take advantage of some of the many opportunities that exist to broaden students' experiences of science.

As we start this new school year, we are all very much aware of the changes that are taking place, or being proposed, in the curriculum. Choices have to be made not simply as to which examination specification should be adopted but, importantly, how this will be approached in terms of teaching and learning, e.g. How can we introduce topics? How can we relate parts of the curriculum to everyday experiences? How can we make it a little more exciting and interesting? The spirit behind many of the changes is to open up opportunities for relating science to the wider experience of pupils.

As we all know, the 'formal' curriculum is only one part of the overall student experience of science and that there are many ways in which students can engage with science beyond the school laboratory. Some students will do this themselves but for many others we need to try to 'open their eyes' to the possibilities that exist by taking advantage of some of the many opportunities to extend experiences and, where appropriate, link them with the 'formal' curriculum. Unfortunately, the plethora of schemes and initiatives that exist can itself be a barrier.

Over two years ago, DfES embarked on the STEM Mapping Review that identified nearly 500 science-related initiatives supported directly or indirectly by government departments. In addition, there is a vast number of activities provided by other organisations, so it is little wonder that there is confusion. At the time of writing, DfES is about to publish a report on the outcomes of their review setting out proposals for bringing greater coherence to the situation. ASE has worked with other organisations to try and influence the outcomes, so that they are realistic and accessible to all schools. We can only wait to see the proposals and then endeavour to ensure that they are implemented in a way that is supportive and manageable.

There are, however, things happening already which provide ways of enhancing the experience of science for our pupils. In his article (p. 8), Roland Jackson reminds us of the value of these wider experiences, many of which can be easily linked with the curriculum. Importantly, he offers a powerful approach to how we might introduce such experiences by involving new people, visiting new environments and locations, and developing exploratory science. Obviously these dimensions can be combined in different ways to meet local circumstances, but the important thing is that there are ways in which all schools can enhance the experience their pupils have of science.

Yvonne Baker's article (p. 10) outlines a major development, Regional STEM Support Centres, which is gaining ground. This initiative attempts to bring greater coherence to ways in which enhancement activities can be accessed and provided. The Regional STEM Support Centres involve a whole range of organisations, including ASE, that have agreed to work together to reduce duplication but provide enhanced support. Importantly, the Regional Development Agencies are committed to the Centres and provide additional support at the regional level.



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Although at times we need to focus specifically on science, or one of its component disciplines, we also recognise the importance of engaging pupils in other areas of endeavour to which science makes a significant contribution. Specifically, we might think of technology, engineering, medicine and issues of sustainability and environmental impact, all of which provide further opportunities for enhancing the experience of science. Matthew Harrison outlines some developments in technology and engineering and the setting up of the TESS initiative bringing together a range of programmes in engineering and technology (p. 12).

Without question, there are plenty of opportunities to enhance experiences of science but there are logistical issues about how we can use them to best effect. Most issues of *EiS* provide examples of ways in which this might be done but we are very interested in your views, successes and failures, as these will help us to influence discussions at all levels (national, regional and local). So, in wishing you all the very best for the new school year, I would remind you that ASE is here for you. If you want advice or support – just ask and we will do all we can to help you!

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