

For many of those reading this edition of *EiS* the idea of large-scale curriculum change will be novel. Since the National Curriculum was introduced to England and Wales in 1989 teachers have experienced several 'tweaks' to the statutory science curriculum but no real change. A few of us remember earlier times when 'a thousand flowers bloomed' and there were literally hundreds of local ('mode 3') syllabuses. We are now entering new and exciting times when curriculum change is again possible, in fact is already happening, not only in England and Wales but across the UK. The curriculum in Northern Ireland is under review and the curriculum in Scotland is also changing. There will be no 'free for all' but, hopefully, considered and well planned change.

The curriculum, like everything else in education, is about young people and improving their life opportunities; it is not about educational or any other dogma. Perhaps the most encouraging aspect of current curriculum change is that it focuses on the needs of pupils. For example 21st Century Science seeks to provide an understanding of how science works and deals with current science-related issues, as well as enabling young people to set out on the path of scientific study and careers. Applied Science uses work-related practices and contexts as an alternative path to scientific literacy and work opportunities. Can we really create science curricula that meet the needs of all pupils and avoid the danger of elevating some aptitudes above others? Yes, I believe we can!

However, the curriculum is not the same as examination syllabuses, schemes of work or even statutory frameworks; it is about the classroom experience of pupils in its totality. Even the most exciting syllabus can pale and schemes of work, though helpful, can stagnate; to say nothing of statutory frameworks! If we are to take advantage of the freeing up of the curriculum, then classroom practice is the key. Huge talent, expertise and enthusiasm are available which curriculum change can unlock.

I have been privileged to visit schools involved in both Applied Science and the 21st Century Science pilot. Two things have particularly struck me; the enthusiasm of those involved and the need for teachers to acquire new teaching skills. As one teacher said: '*We are excited and want this to be really different – not just the old science repackaged*'. Leading a discussion, dealing with controversial issues, setting science in industrial contexts, teaching pupils to produce risk assessments, compiling and assessing portfolios; these are new skills to many science teachers, yet without them the curriculum experience of pupils will not change.

So how can we maximise the present opportunities for curriculum change and make sure that these are

sustained? The following seem to be essential:

- willingness to 'take risks' in teaching by trying different approaches and responding to pupils rather than always pressing ahead with covering content;
 - collaboration and participation in networks so we can learn from each other, particularly in areas that may be beyond our own experience, such as industrial contexts for Applied Science;
 - celebration and sharing of good practice and ideas. We all have something to offer – there is no room for modesty!
 - recognition of the value of CPD. Whatever stage you are at in your career, you have something to learn and contribute; and
 - a positive approach. Let's make sure 'bygones are bygones' and welcome the new opportunities.
- For most of us the prospect of change results in both excitement and insecurity. In order to achieve real and sustained change in the curriculum, leadership and professional development are essential; leadership to channel the excitement and professional development to give teachers the confidence and capability to implement change. Successive reports and surveys have shown that science departments are very well run and organised, but more than that is needed. Busy heads of department and course leaders need also to be:
- initiators of change and leaders by example;
 - team leaders – curriculum change requires co-operation;
 - listeners to the change-induced anxieties of others; and
 - encouragers – curriculum change is hard work and doesn't always run smoothly!

In this edition of *EiS* Martin Hollins from QCA sets out the planned changes to the curriculum framework, and perhaps dispels some of the myths about what may happen. Annette Montague explains how the Specialist Schools Trust (most secondary schools have some involvement with the Trust) can help us tackle curriculum innovation and change. Adrian Fenton then reminds us of some of the issues and the vital part the ASE can play in supporting teachers.

These articles will, hopefully, help you play your part in curriculum development. But let's not forget that the goal of these changes is to enthuse and inspire young people in science, as well as giving them information. It's about 'lighting fires not filling pots'; if we can succeed in doing that, then it's worth all the effort we can give.

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