

Going Public

Developments in Education Award report

Alphabet of Science

■ Sue Assinder

Science – it's as easy as ABC! That was the message of the 'Alphabet of Science' project held in north Wales in March this year. This was a community-based project co-ordinated by CELTEC (North Wales Training and Enterprise), involving local schools, businesses, the University of Wales, Bangor and the general public.

The idea was simple. Participating schools were assigned a letter of the alphabet, plus a scientific topic beginning with that letter. Their task was to work with 'experts' at the university to research the topic and to produce material to decorate a stand to be displayed in Bangor High Street during National Science Week 2001.

The idea may have been simple, but the logistics of organizing an event of this scale were somewhat overwhelming. Permission was required from the County

Council, the Highways Authority and the North Wales Police. Aside from the obvious jobs of recruiting schools and organizing the university contacts, risk assessments had to be written, insurance cover arranged, press coverage and publicity organized and sites for stands negotiated with local tradespeople. I took on the role of liaison within the university and had soon gathered a willing band of students eager to share their skills. Topics were chosen to be as relevant as possible to the National Curriculum and to start with the same letter in

both Welsh and English, since all material would be produced bilingually. Some choices were easy (A is for Atom), whilst others required a bit of artistic license (Y is for Y chromosome!). Three microbiological topics were included – B for Bacteria, F for Fungus/Ffwng and V for Virus. Meanwhile, the Schools Advisory Service worked on recruiting the schools and these were then put in touch with an 'expert' contact at the university whom pupils could email for advice.

The design of the stands required careful planning – they needed to be robust enough to not fall over, yet light enough to be wheeled. The display part had to be transparent, but it also had to be possible to make it secure against vandalism. Fortunately, we had on hand the expertise of students at the Further Education College, Coleg Menai, who were able to turn our amateurish scribbles into professionally specified design drawings, which were then passed to a local engineering company for manufacture.

Although the costs of the stands were covered by CELTEC, additional money was needed to pay for publicity material and to give to the schools for production of the contents. Both the SGM and the British Mycological Society were generous in their support of the microbiological displays. Other funding came from local businesses, the British Association for the Advancement of Science (BA) and the Local Education Authority.

The quality of the material produced by the schools was outstanding, with many 3-D models and artefacts. The microbiological topics were well represented by excellent displays produced by sixth formers at Coleg Menai, and covered such diverse areas as AIDS, fungal 'friends and foes' and the biotechnological exploitation of bacteria.

On Friday 16 March children representing the participating schools assembled in Bangor's Penrhyn Hall for a ceremony attended by Professor Roy Evans, the Vice-Chancellor of the University and Mrs Betty Williams MP. Dr Louise Webb from Techniquest, Cardiff, opened the event on behalf of the BA, thereby marking the official launch of National Science Week Wales 2001. The stands were then ceremonially wheeled to their designated spots within and outside the shops in Bangor High Street, where they aroused considerable interest from passers-by during the following week.

National Science Week came to an end, but the Alphabet lived on. The stands were transported 60 miles down the coast to form one of the exhibits at the Wrexham International Science Festival at the North East Wales Institute. The Alphabet proved to be the better way of guiding visitors between the major attractions during



ABOVE:
Shoppers browse the Alphabet at
the Bangor Wellfield Centre.

RIGHT:
'B is for Bacteria'.

TOP RIGHT:
Finding out about 'F for Fungi'.





the 'Scientriffic' family day, which attracted several thousand visitors.

Inevitably, the project was not without its problems. High winds and torrential rain during National Science Week led to a need for running repairs to the stands and various mopping-up operations. An unanticipated challenge was the foot-and-mouth crisis, which hit hard in north Wales and almost certainly reduced the number of visitors. And the fact that the launch clashed with Red Nose Day did not help when it came to getting publicity. Nevertheless, there was positive feedback from

the public and teachers commented on the satisfaction felt by the children in contributing to a high-profile national event. Overall, the project strengthened links between local schools, shopkeepers and the university, and helped to raise awareness of the many ways in which science impinges upon everyday life.

Alphabet of Science – Evaluation

Formal evaluation of the schools' input was carried out via a questionnaire sent within 2 weeks of the event. Responses were generally positive. All schools felt that the children had enjoyed participating in the event and had benefitted from it. In some cases, schools had managed to incorporate the work into normal lessons. For example, the school working on slate researched the material as part of a history project into the development of Bangor in the 19th century and then produced the material during art lessons. Other schools produced the displays as special projects during lunch hours.

It proved to be more difficult than expected to persuade schools to participate, particularly if they could not see a direct link into a topic on the National Curriculum. All of the microbiological exhibits were produced by sixth formers at the local College of Further Education, probably a reflection of the lack of microbiology in the syllabus for the lower Keystages. With hindsight, it might have been better to allow the schools to choose the topics, but this would have made it difficult to get full coverage of the alphabet and to get a balance across the different areas of the physical and biological sciences.

Recruiting students from the University to participate in the event was easy and I was overwhelmed with volunteers. I sought informal feedback from all students who had made contact with a school and they all found it to be a positive experience. Disappointingly, not all schools wanted the help that was offered and some did not respond when contacted by the students. This is an issue which would need to be addressed if planning a similar event.

It was the original intention that students from Coleg Menai would interview members of the public as part of their Key Skills work. However, activities at the College were seriously disrupted by the foot-and-mouth crisis and it was felt that this would not be appropriate. Although formal feedback was not sought, regular visits to the event through the week showed significant interest from the general public in Bangor. The stands then had exposure to several thousand visitors at the Wrexham Science Festival. There was substantial local press interest, particularly of the launch event.

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Science and Engineering Ambassadors



SCIENCE YEAR

The Science and Engineering Ambassadors Scheme (SEAS) was announced in July 2001. Its objective is to be able to offer ambassadors to schools and bring young people together with role models working in science, technology, engineering and maths, so that they are encouraged to consider a career in these areas. This scheme is an outcome of the 2000 government White Paper *Excellence and Opportunity*. The Department for Trade and Industry and Department for Education and Skills are funding the project. SEAS wishes to build on, strengthen and enhance existing initiatives. It will do this by providing support, guidance and matchmaking services to schools, businesses and other organizations wishing to take part.

● How you can help

Members of the Education Group of the UK Life Sciences Committee, including SGM, have decided to produce, as its Year of Science activity, a database of scientists willing to work with schools and colleges. This database will be part of the SEAS which is to be launched in January 2002. It will be accessible to education providers on the web (www.Biology4all.com) or information will be distributed to schools on request.

If you wish to be included on the database please complete the questionnaire *Communicating Science to Schools* which can be downloaded from the SGM website (www.sgm.ac.uk/education). It should be returned to me at SGM HQ.

● **Dariel Burdass**
SGM Education Projects Administrator