

The sixth in a series of articles looking at the work of Creative Partnerships around the country; this issue looks at ways in which arts activity can impact on the teaching of science.

# Think arts and science can't mix? Think again!

When a visual artist takes their skills into the classroom, teachers and children have the best chance to learn in a new and creative way. **Betti Copperwood** explains.

For more than two years now, I've been working with the children and young people with Autistic Spectrum Disorder (ASD) at Rosehill school in Nottingham to explore how a creative curriculum that meets the diverse needs of students can be developed and sustained. This has also involved working closely with school staff to develop their skills and understanding. Rosehill's investigation of the creative curriculum was kick-started by a professional development day for all school staff. This day helped them recognise 'creative moments' and encouraged them to look for such moments in their teaching. Sculptor Steve Pool, who helped deliver the development day says, "The input of artists helped build the confidence of staff to take risks and make the most of the opportunities creative activities offered. It also helped me recognise what a measured risk might be, especially in the context of working with young people with diverse learning needs, as this was my first experience of working with a special school. I realised that every child could take something valuable



A Rosehill pupil during the light project

away with them from participating in a creative experience."

Steve and I then began to work with school staff to devise a programme of activities to tie in with Science Week. They wanted to draw on the work that had already taken

place, and also recognised that the trust I'd built up between the school's staff and pupils would allow them to experiment and take more risks. Rosehill is fortunate in having an annexe which has become a dedicated space for creative activities. It's a studio, rather than a classroom, and the different rooms mean that it can not only be used for messy and energetic activities, but can also be quiet and contemplative – in other words, a space where anything can happen.

It was decided that the focus for the Science Week project would be an exploration of the nature of light. Steve and I shared ideas with the staff and each other to create an installation with which all 70 pupils in the school would interact at various times during the week. "The nature of the activities was experiential," says Steve. "We wanted to provide a range of opportunities for all children to access the installation at their level,

so that every child could interact with the installation, and contribute their own creative ideas."

Activities included working in both lit and darkened, and in open and enclosed spaces. Smoke and mirrors were used to reveal and change beams of light, and children made personalised light boxes. Other equipment included torches, illuminated screens, projections and video. The activities were varied to respond to the diversity of the children's needs and interests, for example, the mirrors stimulated some children, while others were uncomfortable with them. It also enabled us to move on if a pupil became over-preoccupied with one particular activity, which can be a feature of ASD. For this reason, adults worked with children on a one-to-one basis, to support individual learning needs, manage any anxieties, and help guide children through the activities, essential where many are

non-verbal.

The project also demonstrated how assumptions about children's learning are being challenged through creative activities, especially with children whose level of understanding or ability may not be immediately visible externally. In special schools, assessment is often made by observing pupils experiencing and interacting, for example, seeing a child notice how a light beam moves and is changed by other objects. School staff found they changed their expectations of pupils' ability and understanding by seeing them work in a different context, and respond to the different approaches to learning offered by artists. The project has also generated ideas and resources that staff can use with pupils in future for learning across the whole curriculum.

Steve feels that experiential learning is more likely to enable learners to transfer knowledge to other situations, as it can help develop creative thinking through a process of practical exploration and investigation. This 'what happens if...' approach also leads artists and teachers to review and reflect on their practice, and perhaps demonstrates a meeting point of artistic and scientific practice. Steve and I agree that the 'collaborative' process of exploration demonstrated by this project has enabled them to develop their own practice and generate new ideas.

We also feel that there might be lessons to be learnt for how supposedly 'difficult' children can access and benefit from creative learning opportunities in any school. Certainly the success of this approach in Rosehill is recognised beyond the school. In their recent OFSTED report, the school was praised for "the sharing of skills between [creative] partners and school staff" with the result that "unprecedented interaction has been observed with individual pupils." ■

*Betti Copperwood is an independent artist.*

## What is Creative Partnerships?

Creative Partnerships is a government-funded programme delivered through Arts Council England, that aims to give schoolchildren in deprived areas throughout England the opportunity to develop creativity in learning, and participate in cultural activities.

Working with Creative Partnerships London South, renowned fashion designer Helen Storey and her business partner Caroline Coates created 'The Creative Laboratory,' a unique project that bridges the gap between art, design, science and technology. **Helen Storey** describes how she developed the lab.

## Blurring the boundaries



Heart hat by Philip Treacy

Housed in two classrooms in Churchfield School, The Creative Laboratory is a place for young people, teachers and creative professionals to come together and respond to 'Primitive Streak', a clothing collection charting the first 1,000 hours of human life. The combination of art and science acts as a catalyst to creative exploration. Combined with Amygdala, a two-metre high hand-made book, which examines creativity as a place of refuge, these two pieces of work have provided the stimuli for developing new ways of learning and teaching.

A guiding principle of the Creative Laboratory was that it should not be seen as purely a science lab or art studio, but as a place where anyone from any discipline could interact with both Primitive Streak and Amygdala and explore creative approaches to teaching and learning. Primitive Streak was an experiment. As a designer, it was unlike anything I had ever undertaken before. While 'Primitive Streak' was being created, I had to deal with feeling out of my depth and trust the process alone, much like the leap of faith and process of learning that children encounter in school every day.



A painting developed in the Creative Lab by Mona Kahajian, a year 10 pupil at Charles Edward Brooke School

The theme of experimentation became the backdrop to the first Creative Partnerships London South lab. There we invited schools from all over south London to come and use the collection and hear us recount what it took creatively to make it. The pieces were to act as stimuli for others to think differently about the ways in which we teach and learn.

I was most impressed by the depth and richness of the questions raised by students, they seemed to be as much about life and how a creative individual can live in these times as about a curiosity about how art and science connect. For teachers it seemed to offer a way to create new delivery mechanisms across curriculum subjects touching simultaneously on science, art, poetry, 3D design, Personal, Social and Health Education (PSHE), female health and broader emotional intelligence.

The results of the Creative Lab have been powerful and have helped new tools for learning to emerge, in part through teachers exchanging subject roles and by using equipment and techniques from each other's disciplines in novel ways. ■

Its vision is based on developing long-term partnerships between schools and cultural and creative organisations, these include architects, theatre and dance companies, historic buildings, musicians and online designers. Sixteen Phase One partnerships were established in July 2002 as an initial pilot for the programme. The

programme was then extended to cover 36 areas, which are currently being rolled out.

The programme is funded through the DCMS (with some additional funds from the DfES) and delivered by Arts Council England. Funding for the programme is currently confirmed until 2008.

COMING UP... Issue 100, will continue to focus on the impact arts professionals are having on the teaching and learning of science within schools.

[www.creative-partnerships.com](http://www.creative-partnerships.com)



Rosehill pupils experiment with light and shade