

Introduction

The academic year 2008-2009 has been a record breaking year for the Bristol ChemLabS team. As well as providing the UK's leading environment for studying undergraduate chemistry, the work of the School of Chemistry has reached out to children of all ages.

We thank you for your donations to ChemLabS and its important outreach work. This is extremely important to inspire the next generation of scientists and to encourage all pupils, whatever they go on to study, about the value of science and its relevance to everyday life. Your gifts have enabled the team at Bristol to make a real difference to many, many individuals.

Highlights include:

- Our Outreach team was 'Highly Commended' in Business in the Community's National Awards for Excellence.
- We engaged with at least 25,000 people, mostly schoolchildren, over the past 12 months.
- LabSkills was launched to support A Level students.
- The Sunday Times put Bristol Chemistry at the top in its University Guide.

The Big Tick

We were delighted to be awarded a Big Tick in BITC's Awards for Excellence 2009. An independent panel judged the project's outreach and engagement activities with schools, teachers and students to be making a strikingly positive and sustained impact on the community. ChemLabS Outreach was also Highly Commended in the national award which was announced at an event hosted by HRH, The Prince of Wales.

This is the first ever Big Tick awarded to a university department for outreach activities and is also the first awarded to an educational programme in the chemical sciences. It is a peer-assessed award and an opportunity for UK plc to recognise those who are leading the way in responsible business.

Primary Schools

A huge variety of activities with over 70 primary schools across the UK have involved teachers, parents and pupils of all abilities. Events have included:

- 'Gases in the Air', a popular talk for school assemblies, complete with exciting demonstrations involving liquid nitrogen, oxygen foam, dry ice and a few explosions!

"The best assembly EVER!", a pupil at Ashley Down School in Bristol

- Primary Science Visits and Science Days organised by Bristol ChemLabS and hosted at secondary schools are continuing apace. These are very



popular with events being delivered as far apart as Kent, Cornwall and Yorkshire with many repeat bookings.

- Two conferences have now been held for around 200 gifted and talented Year 5 & 6 (age 9-11) pupils with their teachers or parents.
- Chem@rt is a poetry/prose competition where pupils are sent a series of scientific images and use them to inspire their writings. Chem@rt 2008 was even used in South Africa. Chem@rt 2009 is now entirely web-based and freely available.
- For the first time we opened up our undergraduate teaching labs to primary age children, holding a successful workshop for local underachieving Year 5 girls.
- We are now holding lecture-demonstrations at the School of Chemistry for pupils from Years 5 & 6 every term, giving a rare opportunity for primary aged children to visit a university for such an activity.

Secondary schools

3,000 secondary school students have visited the School of Chemistry over the last year, with half of these working in our teaching laboratories. Students have represented more than 180 schools.

Our schools programme includes day-long workshops that are attended by up to 100 students.

Topics include:

- Perfume Chemistry
- Polymers
- Climate Change
- Spectroscopy



Visits to schools remain very popular, with the lively 'Pollutant's Tale' lecture being delivered around 15 times each month. Schools are increasingly keen to host these lectures for multiple performances of up to five per day! An additional lecture-demonstration, 'A Chemical Delight' which is based around reactions and colours, has also been developed.

Twenty-two pupils who are soon to decide about applying to university took part in this year's Chemistry Summer Experience course designed to give students a flavour of what it would be like to read a chemistry degree. The mix of A-Level and International Baccalaureate students spent two packed days in the laboratories and lecture theatres, and enjoyed an overnight stay in halls of residence.

International Outreach

Over the past year we have delivered a mixture of academic lectures, worked with schools, run summer schools and trained science demonstrators across the globe. Students and teachers in Spain, Italy, South Africa, Malta, Slovenia, France, Australia, South Africa, Singapore, Turkey, India and Ireland have benefitted from this.

Whilst the primary function of the international work was originally to raise the profile and increase engagement with Bristol, this work is now having a greater impact. Young people are inspired, and teachers are learning how to enthuse students in the future through teacher training. A great example of this is the team's work with

dozens of schools in the South African townships. The South African government is now looking to Bristol for training in their schools and universities.

Academics from Ireland, South Africa, Australia and New Zealand have visited to observe and discuss outreach activities.

LabSkills

LabSkills builds on the electronic laboratory manual that we have designed and implemented for our own undergraduates, where students can prepare for practical classes by exploring the techniques and experiments they will encounter in the laboratory. LabSkills is for use in schools by AS Level students and provides an opportunity for teachers to engage their students in practical science in a new and exciting way. By doing this interactive, computer-based work before coming to the laboratory, students are able to perform better and engage in the experiments in a very real way, allowing teachers to spend their time proactively developing students' practical skills.

The University profits from LabSkills are being ploughed back into the School of Chemistry, but more importantly it is inspiring young people to think about science and support them to succeed at AS Level.

The future

The year ahead looks to be even bigger and better. The team are already booked in to many schools and festivals throughout next year, including Scifest Africa 2010, the biggest science festival in Africa, where we will deliver seven public lectures.



“Thank you”