

SMARTER UK WORKSHOPS – THE STORY SO FAR

Science Oxford, in partnership with Oxford University neuroscientists, has funding from the Wellcome Trust to visit 20 WBOB secondary schools during 2012 with free workshops that are designed to enable Y9-11 pupils to explore the issue of 'smart drugs' and to help them to understand more about the brain and the work of neuroscientists.



Ten schools have booked these sessions so far, so we can still take bookings from ten more schools.

"The workshops were really informative for the students. They enjoyed being able to talk to a 'real' neuroscientist and were definitely impressed with the knowledge that their opinions were

going to count towards a 'real' study. The debates were fun and really gave the students a chance to think about what they had been told and decide on different situations for themselves. Thank you for coming into our school!" Sam De Chenu, Warriner School

"A key aim of science week is to get students to consider how science affects all of our lives and the ethical questions that are brought about by new technologies and discoveries. An example of this was the incredible work of Science Oxford, who came in to work with our Year 10 students on the ethics of so-called 'smart drugs.'" Dr Gillespie, Head of Science, Burnham Grammar School

"What we enjoyed most was being asked to discuss and share our ideas and then vote about our thoughts on the ethics of these drugs by answering a range of questions: such as how do you feel about the availability of such a controversial drug and who should take it. Our responses are being collected as a part of Science Oxford's



research too. All in all it was a great experience, an introduction to the fascinating field of neuroscience and one we will be covering later on in the year in Biology." Avi Marwaha, Y10 pupil, Burnham Grammar School

If you would like Science Oxford to visit your school for a day with a neuroscientist and run three free workshops (1 or 2 hour sessions available) with three classes from Y9-11 then please contact bridget.holligan@scienceoxford.com for more information and to arrange a date and session times in 2012 that suit you.

CREST TWILIGHT SESSION

Science Oxford recently hosted a twilight information session for teachers interested in introducing CREST awards into their schools. Those attending heard what CREST Awards can offer young people, and had the opportunity to view previous successful projects as well as to discuss their own schools requirements with their local CREST co-ordinator and the British Science Association.

Presentations were given by Lego Education on the First Lego League

competition and by Practical Action, who described their vast array of technology resources based on the solving of real life problems in the developing world.

If you would like to receive a copy of any of the material presented on the evening please contact cathy.sturrock@scienceoxford.com

"Thank you for a really informative evening" Martin Pugh, Gillotts School



A British Science Association programme

STEM SUPPORT IN WEST BERKS, OXON AND BUCKS

AS STEMNET CONTRACT HOLDERS FOR THE REGION OF WEST BERKS, OXON AND BUCKS, SCIENCE OXFORD'S PURPOSE IS TO HELP ALL SCHOOLS AND COLLEGES IN OUR REGION TO UNDERSTAND THE RANGE OF STEM ENHANCEMENT & ENRICHMENT OPPORTUNITIES AVAILABLE TO THEM AND THE BENEFITS THESE CAN BRING TO EVERYONE INVOLVED.

As part of this role STEM Resources Manager, Cathy Sturrock, has embarked on a regional tour of all secondary schools to talk individually about current enrichment provision and potential opportunities for your STEM departments.

Having already visited approximately 50% of our secondary schools this approach has provided a very useful insight into the enrichment needs of our schools. As a result we have managed

to match a number of schools with STEM Ambassadors to deliver activities varying from workshops on nanotechnology to speaking at career fairs.

These meetings have also allowed us to tailor our service to the particular needs of the school and offer specific advice on funding opportunities, industrial links and STEM Ambassador support.

If you would like to arrange a visit from Cathy to discuss enrichment opportunities in your school then please

contact her on cathy.sturrock@scienceoxford.com

"I found it really worthwhile taking an hour out of my day to talk to Cathy about our enrichment provision." Adam Wood, Head of Science, Bartholomew School



MEET A STEM AMBASSADOR

Name: Dr Kerry Broom

Employer: Health Protection Agency

Position: Principal Radiation Scientist

Main responsibilities: Half of my job is laboratory research on the biological effects of Electro Magnetic Fields, and the other half of my job is scientific management of a research programme.

What I like best about my job: I like having the opportunity to be able to do both lab work and administrative aspects as well and I get to travel a lot to different meetings and conferences. I enjoy working as part of a team in both areas of my job.

Ambassador Activities: What's my Line? careers events, hosting work experience students, talks about my work and my career and encouraging "dads and lads" to get involved in science.



You can sign up to our regular secondary schools & colleges STEM e-newsletter by visiting www.scienceoxfordnext.com

We are the STEMNET contract holders for all schools in WBOB, providing tailored information and advice to enable you to access STEM enrichment activities and STEM Ambassador role models.

For secondary schools & colleges in West Berkshire, Oxfordshire and Buckinghamshire (WBOB)

Science Oxford works with schools to connect young people with science and enterprise

Supporting STEM Science, Technology Engineering and Maths

SCIENCEOXFORD

NEWS

SPRING 12

STEM EVENTS
WHAT HAVE OUR LOCAL SCHOOLS BEEN UP TO?

SMARTER UK
USING DRUGS FOR BRAIN ENHANCEMENT

STEM SUPPORT
TALKING TO TEACHERS

MEET A STEM AMBASSADOR
DR KERRY BROOM



MINISTERS AND MAYHEM

The fun of a County Science Day



WHAT HAVE OUR LOCAL SCHOOLS BEEN UP TO? THE FUN OF A COUNTY SCIENCE DAY!

WE ARE KEEN TO FEATURE AS MANY STORIES FROM SCHOOLS AS POSSIBLE IN OUR NEWSLETTER.

Please get in touch with us if you have something that you would like us to share with others as an example of good practice in STEM enrichment. Please also contact us if you would like our support in order to help you to set up something similar in your own school.

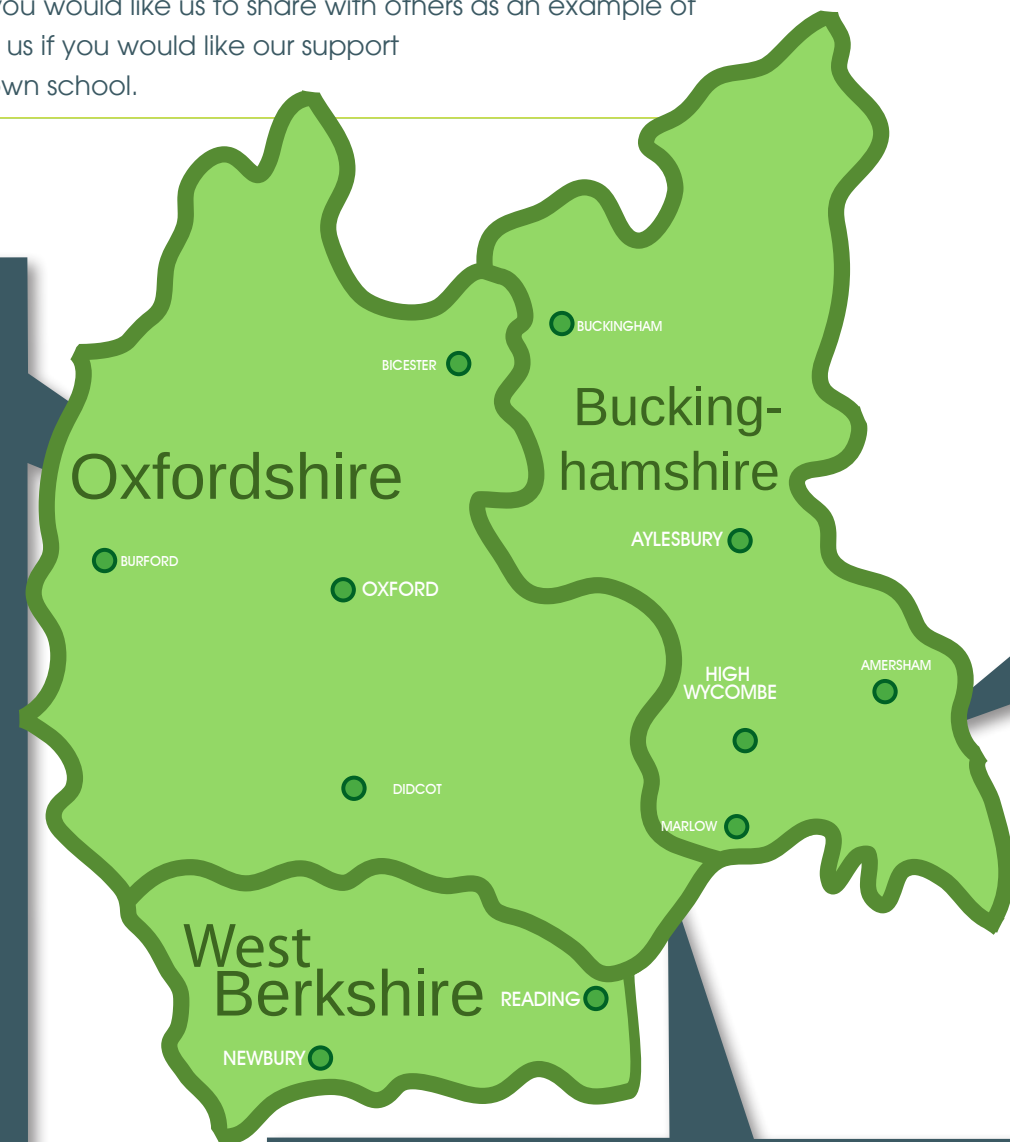
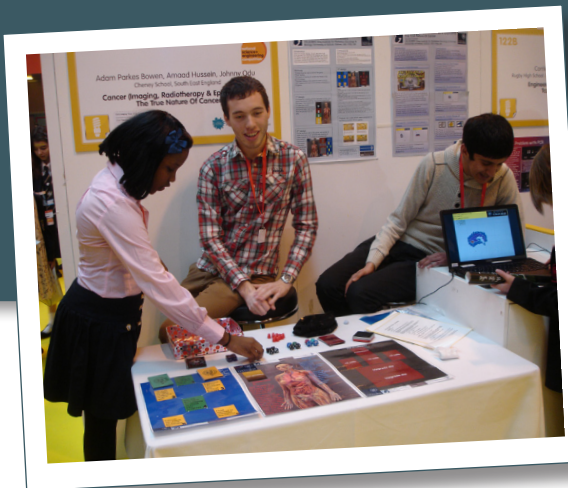
LOCAL SIXTH FORM STUDENTS AT THE NATIONAL BIG BANG FAIR

Three Oxfordshire sixth formers, who completed a Nuffield science Bursary Project at Oxford University's Department of Oncology last summer, were selected to go forward to the finals of the National Science & Engineering Competition at the Big Bang Fair in Birmingham.

Johnny Odu from Cheney School, Amaad Hussain of Cherwell School, and Adam Parkes Bowen from Henley College came up with two games to make the latest cancer research easy to understand.

Under the guidance of Dr Martin Christlieb, Public Engagement Manager for the Department of Oncology, they designed a board game that illustrates how cancer begins, and how the disease and its treatment can take different courses in different people. They also used freely available software to develop a guide to take users through the planning and delivery of radiotherapy to treat tumours.

Martin Christlieb joined Johnny, Amaad, and Adam in Birmingham for the finals of the competition at one of Britain's largest science festivals where their project was viewed by over 29,000 visitors over the 3 days between 15 and 17th March.



INAUGURAL SCIENCE FAIR AT CHALFONTS COMMUNITY COLLEGE

Year 7 members of the Chalfonts Science Club proved that they had the "S-Factor" at the schools' first ever Science Fair which was attended by teachers, parents and supporters.

More than 27 students had worked on their projects since the beginning of February on topics such as volcanoes, satellites and guinea pig psychology. The standard of work was amazing and all those taking part hope to go on to gain their CREST Bronze Awards.

Organiser of the fair, Sinead Mary, wanted to run an event to help enthuse the students about science, encourage cross curricular working and to introduce the students to independent research. The school also recruited the help of their sixth form curriculum leaders who helped to promote the event and work with the younger students.

All the students were winners on the night, but the first prize of a chemistry set was awarded for a detailed and expertly communicated project on healthy eating.

"It was brilliant to see so many exciting, well-researched projects at the Science Fair." Mrs S. Tanner, Principal



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STUDENT INTERVIEWS STRUCTURAL ENGINEERS OF THE SHARD

As part of the STEM Leaders Award, William Morley from Henley College was recently chosen to be one of six students given the opportunity to interview two of the structural engineers responsible for the iconic new Shard building in London.

William, who hopes to go on to study structural engineering at university, met Kamran Moazami And Roma Agrawal at Design Engineers WSP in London and after the interview was required to produce a written article which could lead to publication on the Leaders Award website.

The Leaders Award for STEM gives students the opportunity to meet and interview professionals across many Science, Technology, Engineer and Mathematics fields but only occasionally do these exceptional opportunities arise to meet outstanding people at the very cutting edge of their fields.

"This was a fantastic opportunity for William and he obviously gained an awful lot from it." Louise Heffernan, G&T co-ordinator, Henley College



Science Oxford provides the STEM Advisory Service for all schools in West Berkshire, Oxfordshire and Buckinghamshire (WBOB). The service is free for schools and includes linking schools with STEM Ambassadors. Our STEM Resources Manager, Cathy Sturrock, can make visits to STEM teachers from all WBOB secondary schools to discuss how we can best support STEM enrichment in your school.

If you would like to request a visit or find out more about the support we can offer please e-mail stem@scienceoxford.com

The Oxfordshire County Science Day took place on 25 January, hosted by Rutherford Appleton Laboratory (RAL), coordinated by the Oxfordshire Independent and State School Partnership (OISSP) and delivered by Science Oxford.

It was attended by 64 Year 7 pupils from sixteen schools across Oxfordshire and was also visited by Nick Gibb, Minister for Schools. Pupils were engaged by a range of activities from quizzes and coke can racers to construction challenges, science show demonstrations and 'Backstage Science' videos from RAL - <http://www.backstagescience.com/>

Pupils also got an opportunity to meet and interact with a range of STEM Ambassador role models from RAL, Diamond Light Source and beyond by taking part in Science Oxford's innovative 'What's My Line?' event format facilitated by Cathy Sturrock.

"The tower building competition was challenging - it encouraged great team work and allowed them to use

their own ideas. Meeting the STEM Ambassadors really gave them an insight into the kinds of professions they could choose to go into and adding the competitive element made them engage even more with interesting topics and jobs. The science show was really interesting and engaging and they found out some new science they didn't know." Katy Black, Teacher, The Cherwell School

"The auditorium Science Show using reactions was great and we learnt that physics graduates can basically choose who they work with." Year 7 pupil, Wallingford School



Photo courtesy STFC

THE FUTURE OF OISSP

OISSP has been the largest and longest running secondary school partnership in the country, operating since 1997. Over the past five years the partnership has focussed on improving science teaching, enrichment and uptake in Oxfordshire and this has been facilitated by a close link with Science Oxford. Government funding for partnership models of this type has now ceased and so from April 2012, Science Oxford will be moving the OISSP science legacy forward by developing the OISSP celebratory events for pupil achievement and by continuing to run the Oxfordshire County Science Day with RAL. For more information please contact bridget.holligan@scienceoxford.com



Photo courtesy STFC