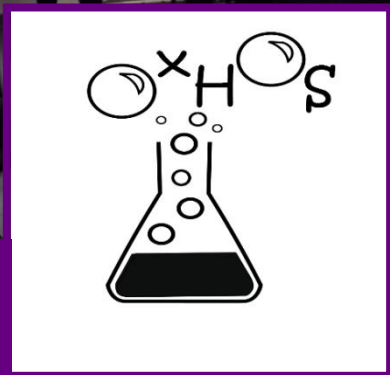


Oxford Hands-On Science (OxHOS) Summer Roadshow 2016 Report



Get in touch with us at contactoxhos@gmail.com
<https://oxfordhandsonscience.wordpress.com/>

About OxHOS

What is OxHOS?

Oxford Hands-On Science (OxHOS) is a student-run society in Oxford. We believe that science is fun and relevant to everyone! We aim to spread our enthusiasm for science to children and their families by taking lots of hands-on experiments drawn from a range of subject areas into schools and public venues, with lots of helpful student volunteers explaining the science behind the experiments!

OxHOS was founded in partnership with Cambridge Hands-On Science (CHaOS) in Summer 2015. We ran our first Roadshow in Autumn 2015, visiting schools and community and shopping centres around Oxfordshire. Since then, we've developed a range of interactive experiments from biology, chemistry and physics, and got the Roadshow ready to tour around the country!

Just to say - thanks very much. The children had a fabulous day - several of them said it had been the best school trip ever!

Teacher, Primary Science Day

Who runs OxHOS?

The Roadshow is organised by a team of science student volunteers who form the OxHOS committee. We work with public engagement staff and other researchers around Oxford to discuss our ideas too.

Lots of undergraduate and postgraduate students, as well as some staff, from the University of Oxford volunteer their time to make our events happen.

We offer volunteer training, given by experienced OxHOS members, alongside encouraging our volunteers to become STEM Ambassadors, in partnership with Science Oxford.

Pre-Roadshow Events



Before the main Roadshow, OxHOS was involved in several events around Oxford. We wanted to see how everyone liked the new experiments that we've been developing!

OxHOS committee members testing our "spinning chair"

First of all, we took some of our experiments to the centre of Oxford for the Big Green Day Out on 4th June, in partnership with the Oxfordshire Science Festival. Lots of our visitors enjoyed generating electricity by spinning magnets inside copper coils and using fruit to power a clock!



Making "fruit batteries"

We also took part in the University of Oxford MPLS Division Primary Science Day on 23rd June. Here, we saw 75 children from local schools' Year 5 and 6. They especially enjoyed our experiment on air flow, balancing ping pong balls in the air stream of a hairdryer!

We also ran a session for a group of Year 12 students taking part in the Northwest Summer School at Corpus Christi College on 21st June. First of all we got to talk about what OxHOS does and why it's important. Then we showed how we communicate the science behind some of our biology experiments to young people – like mimicking the digestive system using potato mashers, coloured 'enzymes' and pairs of tights, or using colour changes in food dyes to demonstrate compatibility of blood transfusions.

The Summer Roadshow 2016

Where did the Summer 2016 Roadshow visit?

Our first cross-country Roadshow lasted for two weeks. We started by taking part in two days of the Oxfordshire Science Festival, and visiting four schools in Oxfordshire, before travelling to South Wales. Here, we made a campsite our base and visited five schools!

Oxfordshire School Events

On 27th June, we visited Glory Farm Primary School in Bicester. We saw 120 Year 5 and 6 students, who particularly enjoyed our experiment on convection with “hot air balloons” and a toaster. Some of the students even sent us thank you letters afterwards!

It was very interesting to learn about things we wouldn't learn on a daily basis. Thank you for not just showing us the experiments and explaining how it works but for letting us take part and see for ourselves how everything works.

Student, Glory Farm Primary School



A demonstrator with our “cuddly microbes”

On 28th June, we visited Carterton Community College, bringing the Roadshow to around another 300 young people. Everyone wanted to have a go on our spinning chair – a fun way to explain angular momentum!

Banbury Academy enthusiastically hosted the OxHOS Roadshow on the 30th June. During the day we saw around 300 students, who got to try extracting DNA from kiwi fruit and exploring natural selection by competing as birds for seeds in different environments in “Clippy islands”.

Pupils benefitted from seeing 1) how many interesting things are explained by science and 2) how many young people/graduates, especially girls, can be science geeks and cool!

Teacher, Banbury Academy



“Clippy islands” experiment

Cheney School in Oxford was the final school we visited in Oxfordshire, on 1st July. Here we had a very busy day, seeing about 540 students, who especially loved our optics experiments run in partnership with the University of Oxford Optics and Photonics Society!



Demonstrators at Cheney School

The OxHOS team are enthusiastic, obviously passionate about science which in turn enthuses their audience. A super day thoroughly enjoyed by all. Many thanks.

Teacher, Liswerry High School

South Wales School Events

After travelling to South Wales in a minibus packed full of our volunteers and experiments, we set up our campsite and looked forward to a week of school visits!



Ready to head off to Wales!

Our first school in South Wales was Ebbw Fawr Learning Community on 4th July, hosting 300 students from Year 7 to 9 as well as a couple of classes from their linked primary school. The “digestive system” experiment was a big hit – everyone wanted to have a go following the journey from food to ‘poo’!

Excellent quality of scientific enrichment...Useful with regards to raising aspirations for future study.

Teacher, Ebbw Fawr Learning Community

On Tuesday 5th July, the Roadshow went to Liswerry High School, where we set up in the school hall and saw about 300 students. One of the day’s favourites was the non-Newtonian fluids experiment, using cornflour on a speaker!

Preparing the cornflour for “non-Newtonian fluids”



Next we went to Risca Community Comprehensive and saw 260 young people throughout the day. The students had a great time experimenting with acids and bases in our pH activity, making indicator from red cabbage and then testing the pH of household items, and getting to grips with some neuroscience with the “rubber hand”!

Fantastic – enthusiastic, welcoming, encouraging to all abilities. Clear explanations for all pupils.

Year 8 Teacher, Cwmbran High School

The Wales leg of the Roadshow continued at Lewis School on 7th July. Another 300 students benefited from having a go with our experiments, including the popular “polarisation”, finding out how polarising filters let you see in 3D at the cinema!

In the classroom at Risca Community Comprehensive



The final event of our Roadshow was on the 8th July, when we visited Cwmbran High School, the former school of one of our committee members. Around 300 students came to see the Roadshow, and enjoyed the experiments as science took – quite literally – centre stage in the school’s drama studio.

Excellent activities delivered with enthusiasm. Really got the pupils participating well. Come back soon!

Year 7 Teacher, Cwmbran High School

Public Events

We ran two events as part of the Oxfordshire Science Festival. To start with, we took part in the Street Science at the Opening Weekend, where we had stalls right in the centre of Oxford outside the shops! Here we were able to talk science to lots of passers by. Everyone loved getting involved with the rather messy digestive system experiment!

"It's so awesome and informative for the kids"

Event visitor



Set up & ready to go!

What did our visitors think?

Feedback about our public events was gathered using questionnaires given to groups of visitors. We were very pleased to see that 100% of those who completed the questionnaires would like to come to another OxHOS event. Everyone learned something new, and enjoyed or really enjoyed the event.



Measuring heart rate

We also took part in the Health Day at Templars Square Shopping Centre on 2nd July. Parents and children of all ages got stuck into the experiments, and lots of the parents remarked that they were impressed that their children were engaging with something educational at the weekend! One of the big favourites was looking at how heart rate changes before and after exercise – lots of star jumps!

Can OxHOS visit us?

OxHOS visits schools and public events both in Oxfordshire and further afield in the UK during Roadshows, mainly held during June/July. If you are interested in a visit, request a visit through our website at <https://oxfordhandsonscience.wordpress.com/> or get in touch at contact.oxhos@gmail.com.



Getting involved with digestion

How is OxHOS funded?

OxHOS Roadshows are made possible by the generous support of our sponsors, listed on the back cover of this Roadshow report. This financial support has made it possible for us to produce our interactive experiments, purchase camping equipment and hire vehicles so that our Roadshow can travel to areas of the country where students have less access to interactive science.



The student demonstrators in Summer 2016 were:

Ainslie Johnstone, Alexandra Smith, Amber Thomas, Ashmita Randhawa, Beatrice Tyrrell, Carlos Rios Ocampo, Christina Turner, Clare West, Caitlin Clunie-O'Connor, Caroline Telfer, Corinna Kulicke, Darren Valentine, David Heathcote, David Macdougall, Ellen Pasternack, Emma Lawrance, Isabel Wilkinson, Jacqueline Gill, James Tarleton, Josephine Pepper, Joseph Smith, Joshua Bull, Loyal Liverpool, Lottie Philpott, Lucy Taylor, Mallika Jaiprakash, Martin Larke, Matilde Stefanini, Mihai Vidrighin, Nidi Tapoulal, Qinrui Wang, Rabeah Adawiyah Abdul Razak, Rhys Pryce, Susan Leung, Thomas Hird, Tomasz Dobrzycki, Tim Davies, Tonia Thomas, Trang Tran, Victoria Davis.

The committee members active in organising the Roadshow were:

Beatrice Tyrrell (President), Corinna Kulicke (Secretary), Tonia Thomas (Fundraising Officer), Megan Sloan (Webmaster), Christina Turner (Treasurer), Emily Brooke (Schools Officer), Jacqueline Gill (Volunteers Officer), Rhiannon Main (Safety Officer), Martin Larke (Building Officer), Matilde Stefanini (Experiments Officer), David Macdougall (Physics Coordinator), Susan Leung (Chemistry Coordinator), Ainslie Johnstone, Lottie Philpott, Josephine Pepper & Shannon Guild (Biology Coordinators), Isabel Wilkinson & Susan Wright (Social Secretaries).

With many thanks to:

- All the schools and public venues for their hospitality and feedback
- Science Oxford for training our volunteers as STEM Ambassadors
- The Oxfordshire Science Festival & the Optics and Photonics Society for collaboration
- Professor Keith Gull (St Edmund Hall) & Dr Sian Tedaldi (Department of Physics)
- Professor Garrett Morris for a private donation
- All of our sponsors, listed below

Generously supported by

