Outreach Newsletter: February 2024

Welcome to the February edition of our Outreach newsletter!

Please do pass this on to anyone who may be interested in receiving this bulletin. They are very welcome to subscribe using this link. If you wish to be removed, please email outreach@chem.ox.ac.uk.

Thank you!

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Upcoming Events:

**KS5 Chiral Chemistry Workshops [UPDATE]**

We would like to announce the 2023-2024 academic year dates for our Chiral Chemistry workshop. This is our online workshop for UK state school KS5 Chemistry students and teachers, which is delivered by our Department Ambassadors. Dates and times have been designed to avoid interruption of lessons. The session focuses on 3D shapes, chirality, the role of chirality in biological systems and the resources available to research chemists looking at proteins, such as the main protease in SARS-CoV-2, the latter being an active area of research in our Department. There is also an opportunity to ask our Ambassadors questions about their research and their academic careers to date. Students may attend without a teacher, provided we have a teacher contact.

The workshop will be delivered on the following dates/times (please note the workshop is running at a slightly earlier time than last year):

- Tuesday 5th March 15.45-16.45
- Wednesday 24th April 15.45-16.45

Please note that places for Chiral Chemistry are limited to students from state schools in the UK, Isle of Man and Channel Islands. Where we are oversubscribed, we will prioritise places for students who meet our widening participation and access criteria. Further information about this can be found at [https://www.ox.ac.uk/about/increasing-access](https://www.ox.ac.uk/about/increasing-access).

**Catch up:**

**Christmas Chemistry Conference 2023 – A Quantum Christmas Robin [UPDATE]**

Thank you to those of your who attended our Schools Christmas Chemistry Conference – online and at Trinity College! Professor Peter Hore shared his fascinating research into the quantum mechanisms inherent in migratory songbirds, and answered some insightful questions from our audience. In case you missed it, you can catch up on the recording via the link.
Future Events:

School / Community Workshops [REPEAT]

Online Primary Workshop: Plastic Fantastic?
This workshop is for a class of students in Years 5/6 (England and Wales), P5/6 (Scotland) and P6/7 (NI) in a UK primary school. Co-led with the class teacher, the students will interact with Oxford Chemistry ambassadors via MS Teams, whilst undertaking small-scale investigations using materials which have been sent to the school in advance.

The following date is now available to book for the workshop:
- Tuesday 5th March, 13:30-14:30

Oxford College Workshops [REPEAT]

You are warmly invited to request a College Workshop when arranging a group visit with a College. Find out about your link colleges here. If you do not hear back from your link college within 14 days, do get in touch directly with us.

Unlock the OxBox – Graffiti Game
A new puzzle box workshop for Year 9 (13-14 yrs), featuring a series of practical and theoretical problems. Minimum of 12 students, state schools please.

Unlock the OxBox – Poison Puzzle
This is for KS4 (14-16 yrs) and is a series of practical and theoretical chemistry problems. Minimum of 12 students, state schools please.
“It is fantastic for the students to have this opportunity to apply their knowledge to a problem-solving activity and so enjoyable for them.” – Teacher

Unlock the OxBox – The Lab Lurker
A series of practical and theoretical chemistry problems for KS5 (16-19 yrs) students. Would suit a class where at least half of the students are studying A level (or equivalent) in Chemistry. Minimum 12 students (at least six studying Chemistry A level, or equivalent), state schools please.

You can mix and match Graffiti Game, Poison Puzzle and Lab Lurker puzzle boxes for groups including Year 9, KS4 and KS5 students, as long as there is a minimum of 12 students in total (a minimum of three from a Key Stage is required).
Other Opportunities:

**National Scientific Thinking Challenge** [NEW]

Entries are now open for the 2024 National Scientific Thinking Challenge, taking place on the last school week of April.

Devised for Year 10 students by academic staff from 6 major UK universities, this challenge comprises a series of questions on real-world applications of chemistry, and tests skills such as deduction, data analysis and problem solving. The challenges are marked and students who are within the top tiers nationally will be awarded gold, silver and bronze ranks (with printable certificates provided).

The challenge is open to all UK schools and is designed to take place in school science lessons. Further details, registration, sample questions and past papers can be found [here](#).

**Balliol Year 12 Chemistry Taster Day** [NEW]

Bookings are now open for Balliol College’s Year 12 Chemistry Taster Day. This event includes academic sessions, an interactive workshop and a demonstration interview, as well as an opportunity to speak to tutors and current undergraduates.

The day is designed for students currently studying Chemistry and Maths at A-Level (or equivalent), and who are intending to study Chemistry at Oxford. Priority will be given to applications from disadvantaged students and from groups that are underrepresented at university level.

The deadline for applications is **Friday 15th March**, with successful applicants notified by Friday 22nd March. You can apply [here](#).

**Balliol College Insight Talks** [NEW]

Booking is now open for Balliol College's Insight talks - a series of online talks aimed at post-16 pupils with an interest in science. Each talk will be taught by an Oxford University postgraduate student, giving the audience an insight into their particular research specialism.
Although aimed primarily at year 12 and above, passionate KS4 pupils may also find these talks interesting. Talks currently listed explore areas such as the Neuroscience of Food or the Causes and Treatment of Obesity.

You can book onto these talks here.

**St Johns Chemistry Inspire Study Day [NEW]**

Applications are now open for the St John's Inspire Chemistry Study Day on Thursday 6th June 2024. The day will feature talks and workshops led by Chemistry tutors, along with the information about the Oxford course, admissions tips and the opportunity to meet current St John’s students.

The Study Days are open to high-achieving Year 12 students at non-selective state schools. Participants must be predicted to achieve at least AAA at A-level (or equivalent). Lunch is provided but students must make their own travel arrangements to and from Oxford.

The application for can be found here. The deadline for applications is midday on Wednesday 8th May 2024.

**Work experience [REPEAT]**

It is with regret that we are unable to offer work experience placements in the 2023–24 academic year. We do understand that many students are keen to undertake work experience having had these opportunities severely curtailed in the pandemic. We are hopeful to be able to offer placements in the future, which will be advertised via our website. Please do not send us unsolicited requests for work experience opportunities in the meantime, thank you.

**RSC Women in Chemistry [REPEAT]**

In-between our scheduled RSC Women in Chemistry events, a reminder that there are lots of exciting opportunities to participate in practical work, including Science Clubs. Do keep an eye on our website and Twitter for further information on future events and activities!
Learning Resource: Unlocking more sustainable futures with green chemistry

Showcasing the work of the Williams and Gouverneur groups at Oxford Chemistry, this article focuses on using ‘green chemistry’ to achieve sustainability goals, including research into solving global plastic pollution to improving performance of rechargeable electric car batteries. Researched and written by Isabel Williams, a former Masters Student at the University of Oxford. You can read the article here. For further resources for engaging younger audiences in polymer batteries and sustainability, try our Power UP! activities produced as part of RSC Women in Chemistry: Making a Difference.