

Outreach Newsletter: November 2023

Welcome to the November 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!

Contents

Click to view

Upcoming Events:

KS5 Chiral Chemistry
Workshops **[UPDATE]**

Explore Chemistry (KS5)
[UPDATE]

Christmas Chemistry
Conference (KS5) **[NEW]**

Catch Up:

KS5 Autumn Chemistry
Conference **[UPDATE]**

Future Events:

Top of the Bench **[NEW]**

School / Community
Workshops (KS2) **[REPEAT]**

Oxford College Workshops
(KS4/5) **[REPEAT]**

Other Opportunities:

Oxford Astrophoria Foundation
Year **[NEW]**

Women and Non-Binary
People in STEM Programme
(KS4) **[NEW]**

RSC WiC **[REPEAT]**

RSC Chemistry Olympiad
[REPEAT]

Work experience **[REPEAT]**

Learning Resource:

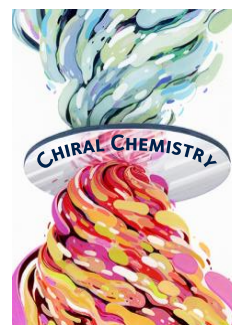
Chemistry of Bonfire Night
[UPDATE]



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.

[REQUEST A SPACE](#)

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

Thursday 9 th November	15.45-16.45	Thursday 8 th February 2024	15.45-16.45
Tuesday 5 th December	15.45-16.45	Tuesday 5 th March 2024	15.45-16.45
Tuesday 16 th January	15.45-16.45	Wednesday 24 th April 2024	15.45-16.45

Explore Chemistry - A super-curricular series **[UPDATE]**

Our next Explore Chemistry talk on **Monday 20th November 17.10-18.00** will feature Oxford DPhil Freya Butler, who will share her journey to Oxford Chemistry and insights from her current research into waste carbon dioxide and the global plastics problem. There will also be an opportunity to ask questions.



The Explore Chemistry series is open to KS5 UK state school students and their teachers. If you're interested in attending our event on the 20th, please ensure you have signed up to our mailing list by **12pm** on the day.

[SIGN UP TO THE SERIES](#)

Please note that for Chiral Chemistry and Explore Chemistry places are limited to students from state schools in the UK, Isle of Man and Channel Islands, and 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>

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

On **Tuesday 12th December 15.45–16.45** we'll be hosting a Christmas Chemistry Conference both online and in person at **Trinity College, Oxford** for KS5 (16–19 yrs) students, parents and teachers showcasing some of the cutting-edge research in the field of Chemistry.

Priority for in-person spaces will be given to local state schools working with Trinity College, but other schools, and those further afield are welcome to apply for surplus places. Please apply by **11:00, 12th December** to attend online. For attendance in person, applications must be received by **11:00, 5th December** at the latest. Tickets will be allocated weekly, so the earlier the requests are made, the more likely they will be fulfilled.

[REGISTER HERE](#)

About the Speaker:

Professor Peter Hore FRS is Professor of Chemistry at the University and Fellow of Corpus Christi College. His research interests centre on trying to unravel the biophysical mechanism that allows migratory songbirds to detect the direction of the earth's magnetic field as an aid to navigation. In this lecture, Professor Peter Hore will discuss the theory that the birds' magnetic compass relies on a quantum mechanism in their eyes that is much more sensitive than previously thought possible.



Catch up:



KS5 Autumn Chemistry Conference **[UPDATE]**

Thank you to those of you who attended our Autumn Chemistry in September. Our own Professors Claire Vallance and Tom Brown shared some fascinating insight into current research into molecular collisions and mRNA vaccines, and responded to questions from our audience. If you missed it, you can catch up on the conference via the link!

[WATCH HERE!](#)

Future Events:

RSC Top of the Bench **[NEW]**

This year's Top of the Bench Thames Valley local section heat to select the team to go forward to the National Finals in 2024 will take place on **Wednesday 10th January 2024, 10:00-14:30**.

Register your team of four students, made up of two year 9, one year 10 and one year 11, to compete against other schools at the University of Oxford's Chemistry Teaching Labs.



We do need students to be accompanied by an adult, but this does not need to be a member of the chemistry teaching staff as they will not be assisting the students. We offer small bursaries for state funded schools to help with costs, please do ask for further details if this would help to make it possible for your school to attend.

If you are a private school currently collaborating with a local state school, we would encourage you to work together so that both schools can enter a team. Please register the schools together, but provide contact details for both the teachers.

Email thames.valley.rsc@gmail.com to register. You must live or go to school in the RSC Thames Valley Local Section area to be eligible (Postcodes GU11/12/14/51/52; OX1-7/9/10-18/20/25-29/33/39/44/49; RG1/2/4-10/12/14/17-31/40-42/45; SL4-6; SN7).

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.

Dates for the 2023-24 academic year (starting in January) will be released shortly.

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.

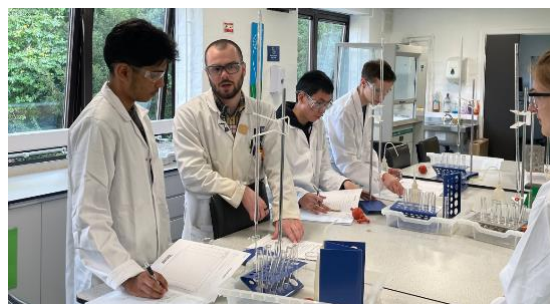


You can mix and match Graffiti Game, Poison Puzzle and Lab Lurker puzzle boxes for groups including Year 9, KS4 and KS5 students, as long as there is a minimum of 12 students in total (a minimum of three from a Key Stage is required).

Other Opportunities:

Oxford Astrophoria Foundation Year in Chemistry **[NEW]**

The University of Oxford's Astrophoria Foundation Year is a fully funded one year course for UK state school students who have experienced disadvantage or disruption during their education. It is also for students that have been unable to meet the academic entry requirements for their chosen undergraduate degree programme (e.g. A*A*A for Chemistry). The requirements for Chemistry programme are AAB at A-level. A number of other qualification types are also accepted.



Students who successfully apply for [Chemistry with Foundation Year](#) and pass the course at the required level can progress automatically onto the Chemistry undergraduate degree at Oxford. Applications are submitted through UCAS and the deadline to apply is on 31 January 2024.

Find out more about the programme and its eligibility criteria [here](#).

Women and Non-Binary People in STEM Programme **[NEW]**

St Anne's College, Oxford (in conjunction with Fitzwilliam College, Cambridge) are running a Women and Non-Binary People in STEM programme this year for UK Year 11s identifying as female or other marginalised genders.

The programme consists of 10 online after-school taster lectures on various STEM subjects (including Chemistry) across January 2024, followed by a visit to St Anne's or Fitzwilliam College in April. Online sessions are open to students from any background; state schools from St Anne's link will be prioritised for the in-person visit.



Sign up for the programme [here](#) – the deadline for applications is **midnight** on **Sunday 26th November**. More info from last year's programme can be found [here](#).

UK Chemistry Olympiad 2024: Register Now! **[REPEAT]**

Registration is now open for the 2024 RSC UK Chemistry Olympiad. This competition for UK students (aged 16–18) aims to test knowledge, develop creative thinking and problem-solving skills, and push students to excel in chemistry. [Supporting resources and past papers](#) are available in advance on the first round written test in January.

Registration is open to all members of [Teach Chemistry](#) – a free scheme to provide additional support to secondary education teachers and technicians. Members can register their school or college through their Teach Chemistry account (you do not need to provide student names at this stage). Further info on this can be found [here](#).



Register [here](#). Registration will close on **7 January 2024**.

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!

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.

Learning Resource: [UPDATE]

Featured resource: The Chemistry of All Hallows' Eve and Bonfire Night

Join Saskia O'Sullivan (Oxford Chemistry) and the late Tim Harrison (Bristol ChemLabS) as they explore the underlying chemistry of two of our most popular celebrations. This lecture-demonstration was recorded at Bristol ChemLabS in October 2021 by Dr Jonny Furze (Bristol ChemLabS). Watch the video [here](#).

