

Outreach Newsletter: December 2024

Welcome to the December 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 for reading!

Contents

Click to view

Catch Up:

Autumn Chemistry Conference
(KS5) **[REPEAT]**

Upcoming Events:

Explore Chemistry (KS5)
[UPDATE]

Chiral Chemistry Workshops
(KS5) **[REPEAT]**

UNIQ 2025 (Yr 12) **[REPEAT]**

Chemistry - Women and Non-
Binary People in STEM (Yr 12)
[NEW]

St John's College Chemistry
Study Day (Yr 12) **[NEW]**

Balliol College Insight into
Science Talks (Yr 11/12)
[NEW]

Future Events:

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

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

Other Opportunities:

Trinity College Teacher CPD
Programme (Teachers) **[NEW]**

PERIODically Podcast (All)
[REPEAT]

Oxford Materials Science Open
Days (Yr 11/12) **[REPEAT]**

Centre for Personalised
Medicine Art Competition (Yr
7-9) **[REPEAT]**

Uncover Engineering:
Residential Programme (Yr 10)
[REPEAT]

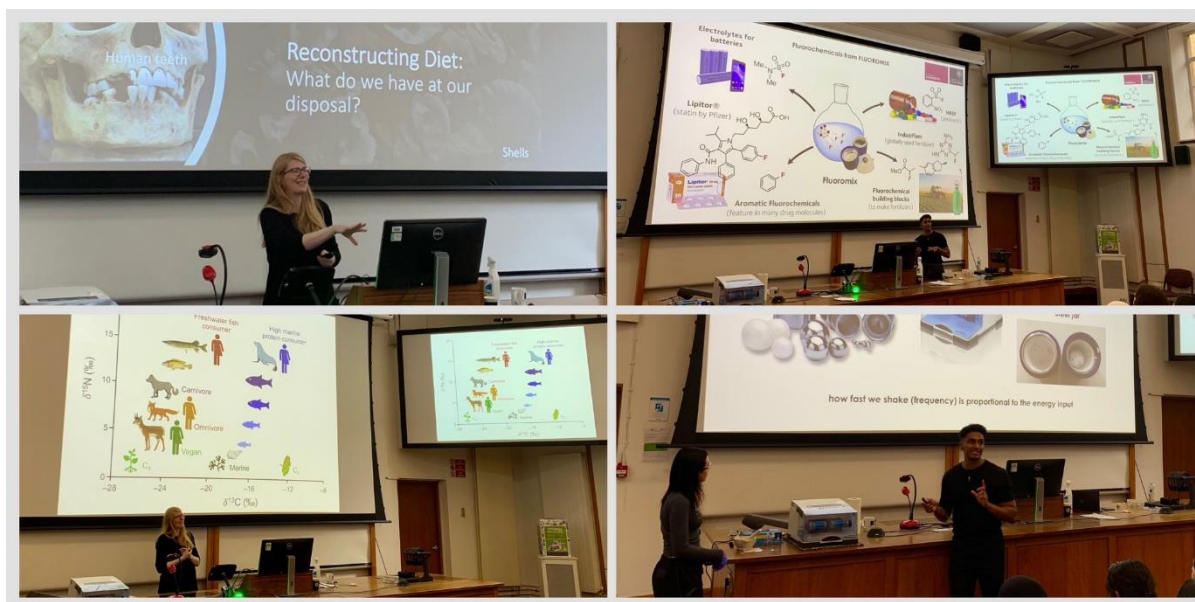
RSC Women in Chemistry
(Yr6-Yr9) **[REPEAT]**

Learning Resource:

Mass Spectrometry for
vaccine screening (All)
[REPEAT]



Catch Up:

KS5 Autumn Chemistry Conference **[REPEAT]**

Thank you to everyone who attended our Key Stage 5 Autumn Chemistry Conference on 26th September. Associate Professor Amy Styring shared fascinating insights into the use of chemistry in archaeology to study ancient diets and migrations, and DPhil Calum Patel captivated us with his innovative work in fluorine chemistry across various industries. In case you missed it, you can catch up on the conference via the link.

[WATCH HERE!](#)

Upcoming Events:

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

Our next Explore Chemistry talk on **Tuesday 10th December, 17.15-18.00** will feature Dr Joe Ford (Gouverneur Group), who will share his journey to Oxford Chemistry and insights from his PhD research into fluorinated compounds. This is a live session with an opportunity to ask questions.

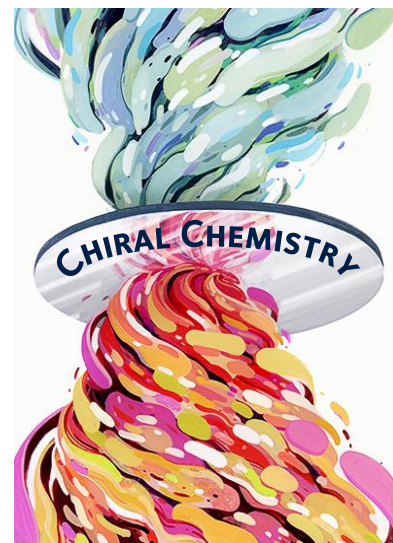
Ensure you are subscribed to the mailing list to receive updates on all talks, and by 11:00 the day before a scheduled talk!

[SIGN UP TO THE SERIES](#)

KS5 Chiral Chemistry Workshops [REPEAT]

A reminder of our 2024-2025 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.

Tuesday 10 th December 2024	15:45-17:00
Tuesday 28 th January 2025	15:45-17:00
Tuesday 25 th February 2025	15:45-17:00
Tuesday 18 th March 2025	15:45-17:00
Thursday 3 rd April 2025	15:45-17:00



**REQUEST A SPACE BY
11:00AM THE DAY BEFORE
THE WORKSHOP**

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>

UNIQ 2025 [REPEAT]

UNIQ is the University of Oxford's access programme for state school students. We prioritise places for students with good grades from backgrounds that are under-represented at Oxford and other universities. Every year more students from diverse backgrounds get offered places at Oxford with help from UNIQ.

Applications for UNIQ 2025 will open on 12th December and close on 23rd January. [Sign up](#) to the UNIQ mailing list to receive updates and important dates for the summer 2025 course application process.



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

On 27th January 2025, from 16:30 to 17:30, students aged 16-17 years old (Year 12) are invited to attend the third online session in the Women and Non-Binary People in STEM series, which is focused on Chemistry. This exciting event, organised jointly by Somerville, St Catherine's, and St Anne's colleges, is part of a broader program featuring 13 online sessions covering various STEM subjects taught at Oxford.



Each session provides a comprehensive introduction to the courses at Oxford, a short taster session led by a college representative, and an engaging Q&A with current Oxford students. To conclude the series, participating students will have the opportunity to visit one of the three organising colleges for an in-depth exploration of STEM at Oxford.

This event is free, but booking is required. [Book here.](#)

St John's College Chemistry Study Day – 26th February 2025 Applications Now Open! **[NEW]**

St John's College is excited to announce that applications are now open for this year's Chemistry Study Day, a free event designed for Year 12 students from non-selective state schools across the UK. The day provides a fantastic opportunity for students to delve deeper into Chemistry and experience academic life.



Deadline 19th January: Sign up [here!](#)



Balliol College Insight into Science Talks – Applications Open! [NEW]

Balliol College is delighted to offer the Insight into Science programme, a series of online academic sessions led by Oxford University graduates. These interactive workshops explore cutting-edge topics linked to the presenters' own research, providing a unique super-curricular learning opportunity.

Programme Highlights:

Who: Open to Year 12 students and interested Year 11s

When: Sessions run from 16:00-17:00 UK time

Where: Online

Cost: Free to attend

Access: No limit on the number of sessions students can join, and recordings will be available later. Participants will have the chance to engage with fascinating topics and ask questions during the sessions. The talks are designed to inspire curiosity and deepen understanding of subjects beyond the standard curriculum.

Chemistry-Relevant Talks:

Thursday 9th January 2025: The Chemistry Behind Beating the Superbugs

Wednesday 15th January 2025: Sustainable Living: The Consequences of Everyday Decision-Making

Monday 20th January 2025: Learning the Lessons from Covid-19 to Prepare for Future Pandemics

Wednesday 22nd January 2025: Structure-Based Drug Discovery in Biomedicine

Wednesday 29th January 2025: Seeing Molecules Through the Eyes of an Organic Chemist

Thursday 6th February 2025: Complicated Chemists — The Dark History of Chemical Inventions

Monday 10th February 2025: The Chemistry of Art

Wednesday 12th February 2025: Drug Discovery — From Benchtop to Patient

Thursday 13th February 2025: The Importance of Hydrogen to the Present and Future

Monday 3rd March 2025: How the Structure of Proteins Influences Their Functions — with a Brief Introduction to Molecular Modelling

Tuesday 22nd April 2025: How to Effectively Read Scientific Papers

Eligible students can apply using the following [link](#) and can select from any of the talks on offer.

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 or Zoom, whilst undertaking small-scale investigations using materials which have been sent to the school in advance.

Dates for the 2025 will be released in our February 2025 newsletter.

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](#). Please note, the inclusion of one of our workshops is subject to the college's capacity to host your visit. Please do copy us (outreach@chem.ox.ac.uk) into any correspondence with the College team regarding the inclusion of one of our workshops. *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.

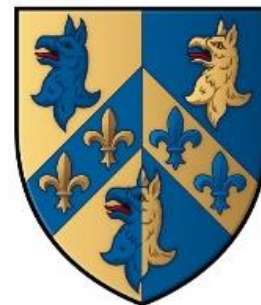
You can mix and match Graffiti Game, Poison Puzzle and Lab Lurker puzzle boxes for groups including Year 9, KS4 and KS5 students, as long as there is a minimum of 12 students in total (a minimum of three from a Key Stage is required).



Other Opportunities:

Trinity College Teacher CPD Programme **[NEW]**

Trinity College invites state school teachers and colleagues responsible for student progression to university to participate in their free online Continuing Professional Development (CPD) programme. This comprehensive programme is designed to provide practical information, guidance, and support for teachers working with students aspiring to apply to Oxford or other higher education institutions.



What's Included?

- Insights into the Oxford application process, admissions tests, and interviews.
- Strategies for higher education applications, personal statements, and teacher references.
- Flexible attendance with a certificate for completing all six sessions.

Who is it for? UK state school teachers, and we particularly welcome teachers from non-selective schools, especially those new to Oxford applications, Russell Group universities, or higher education progression in general.

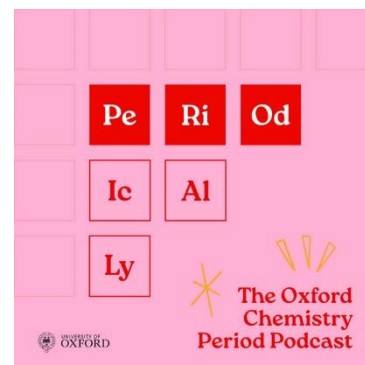
When and where: Sessions from 13th January to October 2025, online. Residential Easter 2026.

Programme Highlight: optional Residential: A free, fully funded three-night Teacher Enrichment Residential during Easter 2026, allowing participants to explore a subject area or teaching practice using the University of Oxford's library collections.

How to Register: Sign up [here](#)

PERIODically Podcast **[REPEAT]**

PERIODically is a podcast created by undergraduate and postgraduate Chemistry students at the University of Oxford to discuss their experiences of how having a period has affected their time studying Chemistry. The podcast aims to discuss how the physicality and intensive nature of studying Chemistry can be affected by symptoms of periods (such as cramps, mental health and medical issues) and seeks to shed light on these problems, tackle stereotypes and misconceptions, and start a conversation on how study can be improved for those with periods. You can find further information and links to listen [here](#).



Oxford Materials Science Open Days **[REPEAT]**

Registration is now open for the **2025 Materials Science Open Days at the University of Oxford!**

These events are open to prospective students in Years 11 and 12 who are curious to explore the field of Materials Science. During these sessions, students will enjoy taster lectures, hands-on workshops, a department tour, and the chance to meet current students. Places for in-person open days are limited, and booking is essential. This is a fantastic opportunity to gain insight into Materials Science at Oxford, including advice on applications and a look into the latest research at the department.

The **in-person Open Days** will take place at the Department of Materials on **18th & 19th February 2025** (deadline 5pm 28th January, sign up [here](#)) and **18th & 19th March 2025** (deadline 5pm 25th February, sign up [here](#)).

There will also be an **online Open Day** on **21st February 2025** (deadline 4pm Thursday 20th February, sign up [here](#)) for those who cannot attend in person.



Centre for Personalised Medicine Art Competition **[REPEAT]**

The Oxford Centre for Personalised Medicine is asking young people in Years 7-9 to create art about how personalised medicine affects our planet. Personalised medicine aims to use what we can measure about people to help work out the best healthcare for them. If it helps people stay healthy so they don't need lots of hospital stays, that could help lower the NHS's carbon footprint. But working with lots of measurements needs lots of computers, which need electricity. Research to develop personalised medicine needs labs which use lots of single use plastic.



So, what might personalised medicine mean for our planet? They want to see what you think! You can make a drawing, a painting, a collage, a sculpture – anything goes as long as you can take a photo of it. Every entrant gets a certificate, and there are cash prizes for the best artworks. They welcome group entries as well as individual entries. So far, they have displayed some of the best artworks from previous years of the competition in the John Radcliffe Hospital, the Centre for Human Genetics, and St Anne's College in Oxford (click here to see the winners and finalists for [2022-23](#) and [2023-24](#)).

Entries open on 2nd September, and close on 31st January 2025 at 1pm.

Please see the competition page [here](#), which contains further information, a short video about the competition, and how to apply.

Uncover Engineering: Year 10 Residential Programme **[REPEAT]**

This exciting initiative invites Year 10 girls and/or Black African and Caribbean heritage students to explore the world of engineering and discover how maths and physics drive this dynamic field.



Participants will stay in a college for four days, taking part in engineering-focused workshops and activities led by the Department of Engineering Science. Evening events include social activities and opportunities to connect with other budding engineers. Students will also experience Oxford life, with college tours and a formal dinner, while parents are invited to join the final day for an introduction to studying engineering at university.

The programme is entirely free, including travel bursaries for eligible students. Students will also have the chance to continue in a follow-on programme, designed to build the Uncover Engineering community.

Who Can Apply?

The programme is open to Year 10 students from UK state schools, with priority for students from under-represented backgrounds in higher education. Applicants should have a keen interest in science and be predicted to achieve a minimum of six GCSEs (or equivalent) at grades 7-9.

Programme Dates:

- Uncover for Girls – 7th to 10th April 2025 at St Hugh's College
- Uncover for Black African and Caribbean Heritage Students – 14th to 17th April 2025 at Exeter College

Applications close on **31st December 2024**. Visit the Uncover [Engineering page](#) for more details on eligibility and to [apply!](#)

RSC Women in Chemistry **[REPEAT]**

A reminder that there are resources for practical challenges, information about research and profiles of team members available via the [website](#). These are particularly suitable for Science Clubs in schools, community groups, such as Scouts and Guides, as well as for enjoyable holiday challenges.

Learning Resource: Mass Spectrometry for vaccine screening [REPEAT]

A team from the University of Oxford have developed a first of its kind mass spectrometry method for vaccine authenticity screening using machine learning. Find out more [here](#).

