

Outreach Newsletter: April 2025

Welcome to the April 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

Upcoming Events

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

Explore Chemistry (KS5)
[UPDATE]

Chemistry Teaching
Laboratory (CTL) Workshops
(KS4 – KS5) **[NEW]**

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

Oxford College Workshops (Yr
9–12) **[REPEAT]**

RSC Professional Development
(Teachers) **[REPEAT]**

The 2025 Science Teaching
Survey! (Teachers) **[REPEAT]**

Other Opportunities:

Big Think Competition 2025
(Yr 11–13) **[NEW]**

National Scientific Thinking
Challenge (Yr 10) **[NEW]**

Balliol College Chemistry
Events (Yr 12) **[REPEAT]**

Lincoln College Study Days
2025 (Yr 12) **[REPEAT]**

Beyond the Classroom –
Online Academic Enrichment
Programme and Y12 Extension
(Yr 7–12) **[REPEAT]**

Trinity College Teacher CPD
Programme (Teachers)
[REPEAT]

PERIODICally Podcast (All)
[REPEAT]

Beyond Boundaries 2025 –
Science-Inspired Art
Competition (Yr 5–Yr 8)
[REPEAT]

RSC Women in Chemistry (Yr
6–Yr 9) **[REPEAT]**

Learning Resource:

Researchers develop new
method using MALDI-TOF-MS
to identify fake Covid-19
vaccines (KS5) **[REPEAT]**



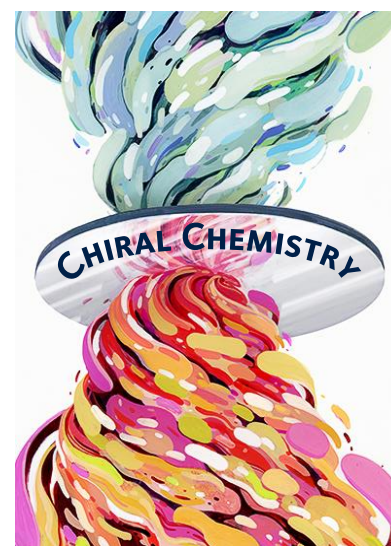
Upcoming Events:

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. Places are limited to 75 / workshop.

Thursday 3rd April 2025

15:45–17:00



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

Explore Chemistry – Conclusion **[UPDATE]**

Thank you to everyone who joined us for this year's Explore Chemistry super-curricular series. We hope you enjoyed hearing from our speakers and exploring the exciting research happening at Oxford Chemistry.

The series has now concluded for this academic year. Information about the 2025/26 Explore Chemistry Series and how to sign up will be shared at the start of the next academic year. We look forward to welcoming you back for more inspiring talks!



Chemistry Teaching Laboratory (CTL) Workshops **[NEW]**

Antibiotics: An Organic Synthesis

CTL is offering Antibiotics: An Organic Synthesis workshops on 10th, 11th, and 12th June 2025. This hands-on workshop introduces Year 10–13 students to the organic synthesis of potential antibiotic compounds. Students will explore antibiotic resistance, carry out a practical synthesis of pharmaceutically active hydrazones, use thin layer chromatography and infrared spectroscopy, and simulate biological testing.

Bookings can be made via this [link](#).

Identification of Unknowns Workshop

This laboratory workshop is designed for students aged 14–16 years who are studying GCSE Chemistry or an equivalent course. It will take place from 17th–19th June 2025, with a maximum total capacity of 44 students across all participating schools. The workshop will only run if at least 16 students are booked in total. Please note that solo students need to be accompanied by a responsible adult who must remain in the CTL reception area throughout the event. Bookings can be made via this [link](#).

Please note that for Chiral Chemistry, Explore Chemistry and Lab Programme 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>



Balliol College Insight into Science Talks [REPEAT]

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 and where: Sessions run online from 16:00–17:00 UK time.

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:

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.

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 puzzle box workshop for Year 9 (13–14 yrs), featuring a series of practical and theoretical problems. Minimum of 12 students from UK state schools.

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 from UK state schools.

“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 – 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), from UK state schools.

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).

RSC Professional Development: Exciting Opportunities for Teachers **[REPEAT]**



Teacher Support Sessions:

These are one-hour, one-off live online sessions that cover a variety of key topics to support teaching and learning in chemistry. Upcoming sessions include:

- Improving numeracy to enhance student outcomes.
- Adaptive teaching in the classroom.

Sustained Professional Development Courses:

For those looking for more in-depth professional growth, sustained professional development courses offer structured learning experiences. These courses focus on practical skills, subject knowledge, and effective teaching strategies. Each course consists of four live sessions complemented by gap tasks, running over a period such as a term.

New for this year! The latest addition to the available courses is 'Effective delivery of practical work', designed to help educators enhance hands-on learning in classrooms. Bookings for the summer term will open in mid-March—an opportunity not to be missed.

To stay informed about new course launches and professional development opportunities, sign up for Teach Chemistry and newsletter.

The 2025 Science Teaching Survey! **[REPEAT]**

The 2025 Science Teaching Survey is now open, offering all science teachers, heads of department, and technicians working in secondary schools across the UK and Ireland the chance to shape the future of science education. Conducted by the Royal Society of Chemistry in collaboration with the Science Education Policy Alliance (SEPA), this is the largest survey of its kind, designed to capture the real challenges and needs faced by science educators today.

How It Works:

- The survey takes just 15 minutes to complete.
- Your feedback directly shapes the support, resources, and policies that impact science education.
- Insights from the survey will guide future initiatives aimed at making life easier for educators like you.

Deadline to Participate: Complete the survey by 7th April 2025 to ensure your voice is heard.



Other Opportunities:

Big Think Competition 2025 **[NEW]**

Submissions for the Big Think Competition 2025 are now open!

Run by St Edmund Hall, Oxford, the competition invites UK state school students in Years 11–13 to tackle a 'big' question set by Oxford academics.

Students are challenged to submit a five-minute video essay answering '*How can Chemistry solve the problem of forever chemicals?*' for a chance to:

- Win cash prizes
- Boost their personal statement
- Visit Oxford and meet the tutors

The deadline for entries is 12 noon on Monday 12th May 2025. Enter [here](#).



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 College Chemistry Events **[REPEAT]**



In the Spring and Summer Terms, Balliol College hosts a series of free taster days for prospective applicants. These sessions are aimed at UK state school students in Year 12.

Each day includes an Oxford-style undergraduate tutorial, for which students must complete and submit work prior to the event. Participants will also attend an admissions session and take a college tour with current undergraduates.

Prospective applicants may attend only one taster event. Due to high demand, applicants must ensure they are available for the entire day and can complete and submit the required work before the deadline. Apply for Wednesday 14th May or Wednesday 4th June.

Lincoln College Study Days 2025 **[REPEAT]**

Lincoln College, Oxford, is excited to offer in-person Study Days for Year 12 students from UK state schools. These days are designed for talented students from non-traditional Oxbridge backgrounds interested in Physics/Engineering and considering applications to top universities.



What to Expect:

- Engage with Oxford tutors and students.
- Develop key academic skills like essay planning and critical thinking.
- Prepare for university applications with an admissions workshop and mock interview.
- Accommodation is free, and travel support is available.

Dates & Deadlines:

Physics and Engineering: August 12–14th (apply by Thursday 22nd May, 12:00/noon).



Beyond the Classroom – Online Academic Enrichment Programme **[REPEAT]**

Registrations are now open for state school students in Years 7–12 to join Trinity College's Beyond the Classroom Online Academic Enrichment Programme.

Start Date: Wednesday 5th March 2025.

End Date: Wednesday 9th July 2025.

Time: 16:30 (weekly sessions).

Format: Online.

Those who attend 7 or more sessions will earn a Certificate of Participation from Trinity College – a wonderful addition to any academic portfolio!



Students can look forward to:

- Engaging mini-lectures on a variety of topics.
- Explore taster sessions – delve into big questions and ideas.
- Talks on academic skills to enhance learning strategies.
- Advisory sessions on preparing for university study, including pathways to the University of Oxford.

Year 12 Extension and Residential

If you're in Year 12, attend a state school, and are seriously considering applying to one of the 19 courses offered by Trinity College at the University of Oxford, you can apply for one of 20 places on their brand-new BTC Extension Programme.

The Extension Programme includes a FREE two day residential (one night stay) taking place at Trinity College on the 10–11th April 2025, where you will take part in a mini tutorial in your subject area, have access to the library, free time for revision and private study to explore your subject in more detail, and meet other participants on the programme. Throughout the year, you'll also be supported to explore your subject in more depth with suggested reading and other materials, take part in online mini tutorials and receive additional support with your Oxford application.



Sign up to Beyond the Classroom (includes the option to select the Extension Programme) by completing the [registration form](#) or scan the QR code.

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

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 they 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.

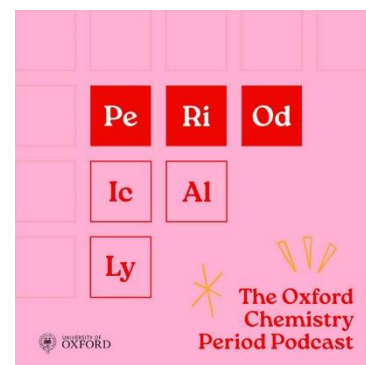
Programme Highlight: Residential (optional): A free, fully funded three-night Teacher Enrichment Residential during Easter 2026, allowing participants to explore a subject area or teaching practice using the University of Oxford's library collections.

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](#).



Beyond Boundaries 2025 – Science-Inspired Art Competition for Yr 5 – Yr 8 Students **[REPEAT]**

The MPLS EDI team is excited to announce that the Beyond Boundaries science-inspired art competition is now open for its fourth year! This exciting opportunity invites Oxfordshire state school students in Years 5, 6, 7, and 8 to create artwork inspired by the lives and research of seven Black, Asian, and Minority Ethnic scientists from the Mathematical, Physical and Life Sciences (MPLS) and Medical Sciences Division (MSD) at the University of Oxford.

Competition Details:

- Open to Oxfordshire state school students in Years 5–8.
- Students are invited to produce artwork inspired by the stories and research of seven Black, Asian, and Minority Ethnic scientists.
- Participants have the chance to win £100 and £50 prizes.
- Winning entries will be exhibited at a prominent Oxford location.

Deadline for Submissions:

All entries must be submitted by 4th April 2025.

Find Out More:

For further details about the competition, visit the [Beyond Boundaries](#) page via [Oxford Sparks](#), where you can also explore a range of inspiring science videos and podcasts.

RSC Women in Chemistry **[REPEAT]**

A reminder that there are resources for practical challenges, information about research and profiles of team members available via their [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:

Researchers develop new method using MALDI-TOF-MS to identify fake Covid-19 vaccines **[REPEAT]**



Oxford researchers and their global partners have unveiled a new, non-invasive method to detect falsified vaccines—without opening the vial. By using MALDI-ToF mass spectrometry (a tool already common in hospitals), the team can analyse a vaccine vial's label and adhesive to generate a unique chemical "fingerprint." This technique not only confirms vaccine authenticity but also distinguishes genuine COVID-19 vaccine liquid from counterfeit versions. With concerns over substandard medicines worldwide, this breakthrough highlights the crucial role of chemistry in ensuring public health and safety. Find out more [here](#).

