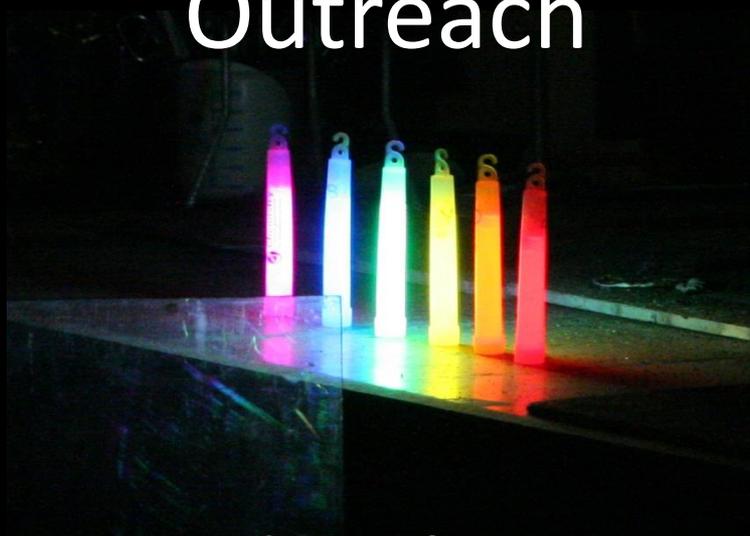


The University of Manchester Department of Chemistry Outreach



Promoting our discipline, our university,
and our research to Primary Schools,
Secondary Schools, and the General
Public.

Raw Numbers

	Primary School Visits	Secondary School Visits	Total Schools Involved	Total Nos. Hands-On	Total No. seeing shows	Totals*
2006-2007	15	40	296	4264	6009	10273
2007-2008	9	53	328	6027	7609	13636
2008-2009	10	34	340	1128	7100	8228
2009-2010	8	26	305	1493	6097	7590
2010-2011	14	50	386	18102	8129	26231
5-Year Totals	70	233	1943	31787	40372	72159

*Note: some double-counting in totals, since some people did hands-on AND saw a show

Content of the Programme

- Where
 - In School/College/Kids Clubs
 - In University
- Area
 - Egremont to Birmingham
- Who by
 - 2 members of Staff + others ad hoc
 - 1 administrator
 - over 60 UG's- and PG's

Why?

- **Marie Curie Action Fellowship Applications**
- 1.5.2 Outreach Activities
- “In the Marie Curie Actions, Outreach Activities can be defined as dissemination initiatives directed towards the general public, rather than the research community. The primary goal of the Outreach Activities is to create awareness in the general public about the research work performed and its implications for the citizens. **The outreach activities plan submitted by each applicant will be assessed during the evaluation of proposals.** The type of outreach activities can be freely chosen by the applicants and could range from press articles to exposing students from primary and secondary schools or universities to science, research and innovation in order to develop their motivation to embrace research careers.”
- **Pathways to Impact**
- **Pay, or...**
- **Volunteering.**

Volunteering

- Manchester Leadership Program
- Higher Education Achievement Record (HEAR)
- STELLIFY
- ReachOut
 - What is ReachOut?
 - We are a mentoring charity that works with children and young people from disadvantaged communities to extend opportunities, teach new skills, broaden their horizons and inspire them. We offer a variety of projects, ranging from Maths & English tutoring, football academies, Primary School mentoring and Secondary School mentoring. There are projects every weekday so they will fit in with most timetables.
- CV material, and it's fun!

FAME!

Local Press, e.g Manchester Evening News, also TV appearances.

Primary Events

- Into Uni - Year 5/6 (10/11yo)
- Slime, Bath Bombs
- Tour of the school



Primary Events - In Schools

- Solids Liquids and Gases Lecture
 - Year 3-6
- Ice-cream making, Bath Bombs etc.
 - Years 5-6.



Secondary Events - In Uni:

- **Salters' Festivals** (Year 7/8 students): teams of 4 from 20 schools.
 - Competitive lab challenges and demo lecture
- **Polymer Day** (Y9)



Secondary Events - In Uni:

Synthesis & Spectroscopy Days
(Y11/12/13)

NMR

IR

Mass Spec

TLC

Tour

Careers Talk

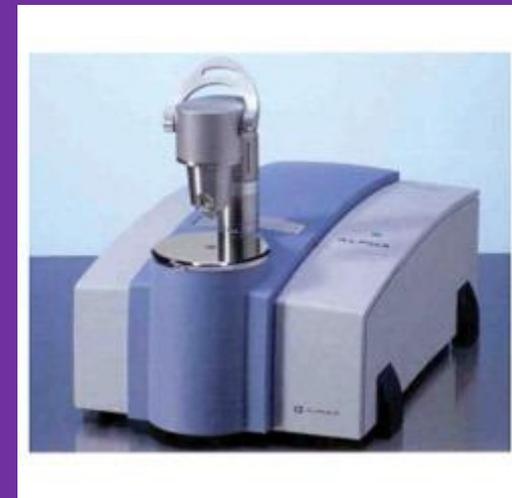


Research and Careers Talks

- “The Fascination of Crystals” by Prof John Helliwell
- “Giant molecules and 2D materials” by Prof Peter Budd
- “A Career in Chemistry?” by Dr Jonathan Agger

Events in Schools: Spectroscopy in a Suitcase (HEFCE/RSC)

- Y11/12/13: Paracetamol,
- NMR and IR Spectroscopy



Events in University: Over to you.....

- Researcher-Organized (part of Postdoc grants).
- You don't have to wait for us to organize, or invent.
- We are here to advise as well as ask for your help
- You **DO need to check with us** (and safety advisor and Head of School) if you want to do any chemistry with children in the School of Chemistry.

Flash Bang Shows

- 1 hour demonstration lecture
- In School or in University
- Whole age range 5 - 18+++



Science Festivals

- MOSI Days
 - Museum of Science and Industry, Castleton
 - DTC Nano, Radiochem, Sugar chem.
- Chemistry Week, Science Week Science Festival
- Manchester Science Spectacular(part of MSF)
- Jodrell Bank Summer BlueDot Festival (RSC)
- Others (London, Cheltenham, etc)
 - All want the same thing: Fun, engaging, short-term tabletop experiments and/or exhibits.
 - Exhausting, but fun! And BIG numbers of people
 - Making slime, radioactive bananas, melting/freezing polymers, colour changes, liquid nitrogen ice-cream, glowsticks, false nails, etc etc. A large bank is available.
 - Suggestions for new ones, or ways to link to research, welcome.

Summary

- Flash-Bang (all ages)
 - In house: free, events near Christmas (RSC), and in summer.
 - In school: Need a large hall, high ceiling, 20 feet of tables, audience close to 200+, and recompense for consumables, travel and equipment: £300 per show. Limited number available.
 - 11am earliest start time possible. 2pm optimal.
- Polymer Day (year 9)
 - Book for next year outreach@chemistry.manchester.ac.uk
- Synthesis & Spectroscopy Tours
 - GC, CGMS, NMR, IR, TLC : 4 of the these (june)
- Discover Chemistry days
 - A-level or senior Chemistry GCSE, Synthesis, spectroscopy chromatography.
- **Spectroscopy in a Suitcase** (polymer and paracetamol activities)
 - Katayune.presland@manchester.ac.uk: LOTS of these.
- Nuffield Research Bursaries (School takes 10, Y12/13 transition)
- Solids, Liquids, Gases show (primary)
- Bath Bombs (primary)
- Science Festivals

Upcoming Engagements

- RSC Flash-Bang Show: Wed 11th Dec.
 - Roscoe , Dr Mair. Need helpers to receive schools, supervise seating, and to help with setup of equipment.
 - Contact outreach.chemistry@manchester.ac.uk
- **Solids, Liquids and Gases**
 - Initial training: Dr Josh Moore **2-3pm Wed 23rd Oct. G54**
 - **Then: accompany experienced practitioner.**
 - Contact outreach.chemistry@manchester.ac.uk

Upcoming Engagements

- Spectroscopy in a Suitcase:
 - Note: 2nd Years cannot miss Tuesday labs to do this.
 - Paracetamol or NMR activity for Y12/13, contact Katayune.Presland@manchester.ac.uk about that.

Rewards

- Recognition of Volunteer hours:
 - Manchester Leadership Programme
- Non-volunteer hours
 - **Get paid!**
 - **By us, or by Flash-Bang Science**
 - <http://www.flashbangscience.co.uk/>
- **Most importantly: helps CV, helps Job Applications, helps Fellowship Applications**
- **Doing A Good Thing; and it's Fun!**

UoM WP Fellows

- **For PhD Students: Recruiting in July/August each year.**
- **Hours and Pay:** The period of employment is usually from October – July (10 months). Fellows are paid at a rate of £12.56 per hour. Payment is monthly: e.g. £125.60 / month for 10 months when working 100 hours in total. Potential applicants interested in fewer hours should speak with the contact person.....
- **Emma Lewis-Kalubowila@manchester.ac.uk**
- **Previously, outstanding WP fellows, Olivia Holmes, Chloe Oakland and Stephen Worrall: Profound Thanks to Them! Contact relevant Faculty Officer (Emma) by August 2020.**