

ROYAL

## What's in this booklet?

- Preparation
- Why chemistry?
- On the day –





**This guide is intended to support and enhance the work you do with young people and share best practice with other members volunteering in schools.**

It will give you some new ways to inspire the next generation and demonstrate the presence chemistry has in everyday life.

Volunteering in schools is an excellent way to develop your professional skills. We recognise volunteering as a form of continuous professional development and it can also help you gain professional registration.

Your activities not only give young people an opportunity to learn about working in the chemical sciences – they also help schools in England meet the Gatsby Benchmarks through employer or employee encounters.

Research from the Education and Employers Taskforce shows that a young person who has four or more meaningful encounters with an employer is 86% less likely to be unemployed or not in education or I r

## Think about:

### 1. What is the aim?

Work with the teacher or science lead to establish specific outcomes, understand how much they already know and when they are making their study choices. Good communication with the school is key. Visiting the school/venue can also be helpful.

### 2. Who are the audience?

Consider their ages and abilities. Link to what they are currently learning at school and show the real-world applications through your own work. Consider any adjustments – having a few activities with components that can be easi.

# Why chemistry?

Chemistry saves lives and makes a difference. It is at the centre of everything we can see, smell, touch and taste.

Chemistry can help you understand hoki

"It can be easy when you do science every day to forget how amazing science is and when you have to explain to younger kids you can take a step back and realise what you do is really cool."

**Sarah Bucknell**  
CSci CChem MRSC

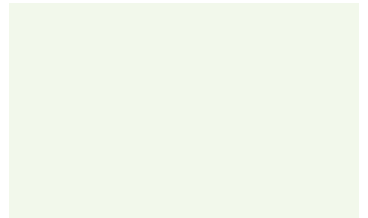
"Make the audience see your enthusiasm and knowledge of the topic you are delivering – share with them a story of your experience and what you learned even if the outcome was not as expected."

**Nigel Gill** CSci CChem FRSC

# On the day – top tips to engage students

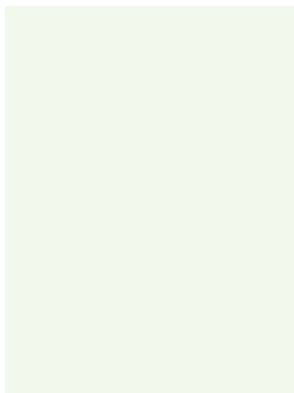
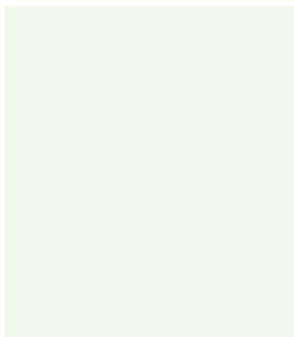
We asked a few members who are STEM ambassadors to share their top tips with us:

- Be enthusiastic about science and your work! Be mindful about the level of science you're using – it's easy to slip into terms that aren't suitable for a classroom.
- Discuss what inspired you to choose your career path and talk positively about what you enjoy about your job, if you're proud of your work, what your organisation does and why it's important. Personal stories go down well so share your successes



The following information supplements the training you should have received through STEM Learning or another school engagement scheme. It is not intended to be authoritative and seeks to create a safe, productive environment for yourself and

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“You need some sort of practical element because that means that everyone can get involved or you can rotate who is at the front. It’s important to signpost what it is you’re trying to achieve from the activity because if they understand what they’re trying to learn then they get more out

the activity exciting yourself so you can deliver in an exciting manner.”

**Sarah Bucknell**  
CSci CChem MRSC





I'm a Process Specialist for Chemical Processing within the Rolls-Royce Inchinnan Civil Services covering chemical cleaning, descaling, pre-penetrant etching and paint processes in addition to my site role as RP (Responsible Person) for process safety management.

As a Fellow of the Royal Society of Chemistry (FRSC), and with Rolls-Royce active in this field, I became keen to help inspire the next generation of future scientists showing them it is possible to transfer the key skills learned in school to the workplace. I do indeed get a lot of enjoyment out of STEM and just wish I had joined up earlier.

I get involved a lot in supporting the classroom syllabus with 'hands-on' practical chemical analysis that reinforces the key topics being learned. I have had a lot of fun working with pupils performing manual titrations to explain acid-base titrations, showing them automated titration equipment, giving

simplified explanations of how Karl Fischer titration works for water content analysis, in addition to discussing the environmental aspects of our business. I normally talk through what the pipettes, burettes, and associated equipment we use is actually used for and what its' function is. I ensure they have the necessary PPE on and get the audience to perform the task with your full support - this really gets them involved!



I'm a lecturer in the Department of Food and Nutritional Sciences at the University of Reading. I convene the Fundamental Biochemistry in Food and Nutrition



# Event planning checklist

What are the aims of the engagement for the teachers, students, yourself?

How many students will be involved, how many sessions are you doing, how long is each session, how old are the students and what ability are they?

What activity and format will be most suitable for what is being asked?

What type of space have you been provided with (lab/classroom/table top in a hall)?

How interactive and hands-on is your activity? Does it include a prop?

Does your presentation allow students to ask questions? Do you have questions in mind to ask them?

How adaptable is your activity? Can it be shortened/extended last minute?

What resources and materials are required? Does the school need to provide anything? Can you use a USB or will you need to email the presentation in advance?

Are your materials suitable for all audiences?

Is a risk assessment required? Will you need to show your DBS number/form on arrival?

## Our resources

# Get in touch

For support, resources and information about careers in chemistry [careers@rsc.org](mailto:careers@rsc.org)

For help working with children and safeguarding [safeguarding@rsc.org](mailto:safeguarding@rsc.org)

To share your volunteering story with us and the community [pressoffice@rsc.org](mailto:pressoffice@rsc.org)



[www.rsc.org](http://www.rsc.org)

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