Why do you take part in the Olympiad round 1?
It’s the main competition for upper sixth students in the UK for chemistry. It offers students two things. Firstly, it gets them thinking, which is good preparation for university. They get used to seeing problems that are hard to solve – often A-level questions are familiar situations, in the Olympiad unfamiliar situations are often used. Secondly, it’s useful for A-level as the problems start in an A-level topic – the start of the question is accessible to all students - then ramp up. It supports work they do in the classroom. You can give past papers to some of the most able chemists to support revision, use them in extension classes to go beyond the curriculum or use a paper a week to prepare them for interviews at competitive universities. Whether they’re interviewing for chemistry, engineering or biochemistry, the Olympiad past papers are really good preparation.

What do you think your students get out of the competition?
Preparation and support as above.
More able students in any school get used to A* questions at A-level and are used to getting close to full marks on tests. This does not prepare them for university where 50 or 60% is good. Taking the Olympiad builds resilience – they experience not getting it all right, and that half marks is a success – it provides an adjustment for real life and helps them realise that in some circumstances 30/60 is a Gold. It is helpful for students as a transition from upper school career to university/real life.

What role do the round 1 competition and Olympiad past paper questions play in your teaching and learning?
In the classroom day-to-day I use the odd question when it is particularly relevant to a topic. The early part of the question can be used for all students, and the later part for extension and differentiation – you can use some bits of the question for all then split the class or let them all have a go.
I mainly use them as extension work and in extension classes for lower and upper sixth students as an integral part of pushing them beyond the curriculum.

How do you and your students prepare for round 1?
It’s up to them – I facilitate by giving them the past papers and the mark scheme, and they know they can come and talk to me about it. The next week I’ll ask, ‘Where did we get stuck?’
For the upper sixth students they get a paper a week but do it themselves. Even the best students get stuck, and I can’t always help straight away – I have to go back to my undergraduate textbooks and we work it out together. It’s nice for students to see that teachers don’t know everything.

What advice would you give to a school that is taking part in round 1 for the first time?
Use the past papers on Learn Chemistry AND the support book – it’s the first place to go as it has the explanation for answers as opposed to the mark scheme that just gives the answer.
Make sure they understand that every single mark they get is a success. It is not about working out their percentage and a change in mindset might be needed - 12 marks is still good and a success but it might not feel like it.
It doesn’t have to be just sixth form students, GCSE students really don’t know much of the content but can score marks by applying their knowledge. Don’t worry about the marks, it’s about the experience.

How early would you recommend to a new school that they start prep work with the students?
The lower sixth should focus on the Cambridge Chemistry Challenge (CCC) as the Olympiad and the CCC go hand in hand. Those upper sixth students who have done the CCC in the lower sixth are well prepared for the Olympiad. The Olympiad is harder than the CCC so if you use Olympiad questions with lower sixth students I’m choosy and wouldn’t give them the full paper. Then in upper sixth, students can turn their attention to full papers before the real thing in January.