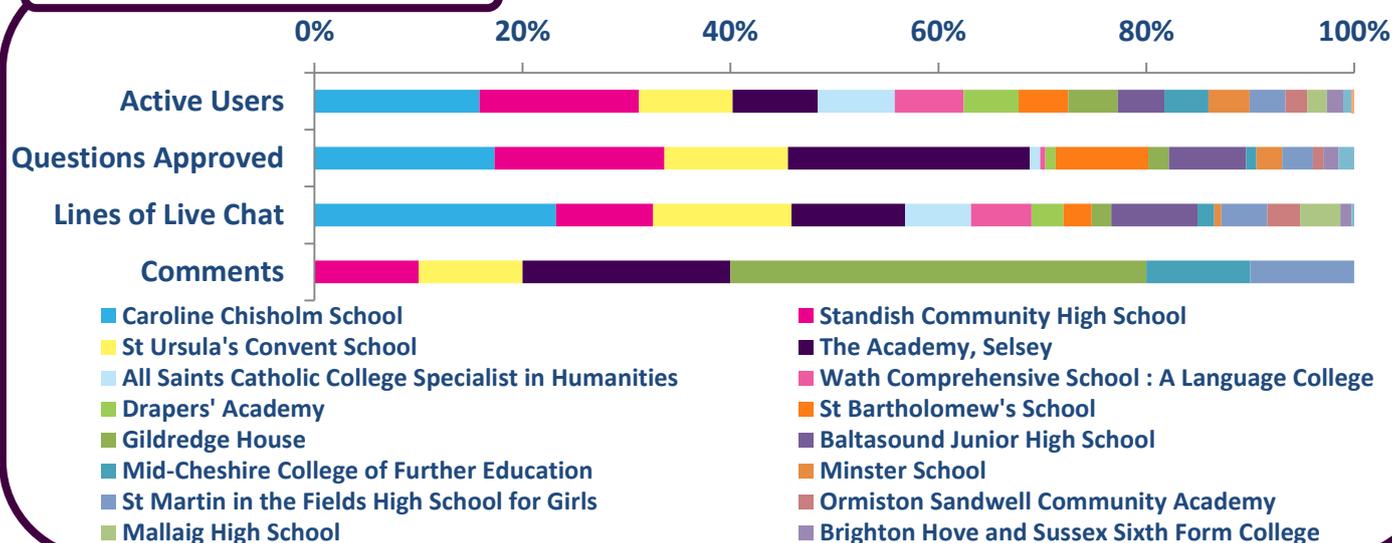




November 2015

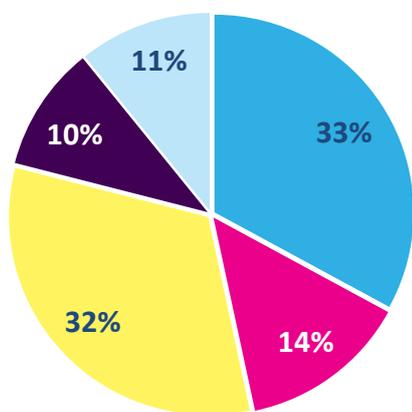
The Spectroscopy Zone was funded by the Royal Society of Chemistry, of which Baljit, Jesus, Arlene and Michael were members. All the scientists used types of spectroscopy in their research, for instance in detecting explosive compounds, in forensic chemistry, or to analyse the light from distant galaxies. The students in this zone were interested in the research of the scientists and picked up on the details in their profiles, leading to varied discussion of careers in chemistry as well as how they each used spectroscopy. All scientists communicated well with the students and Jesus, the zone winner, engaged strongly throughout. He attended all 19 chats, often as the sole scientist, and contributed a third of the zone's answers in ASK, as did Baljit.

School data at a glance

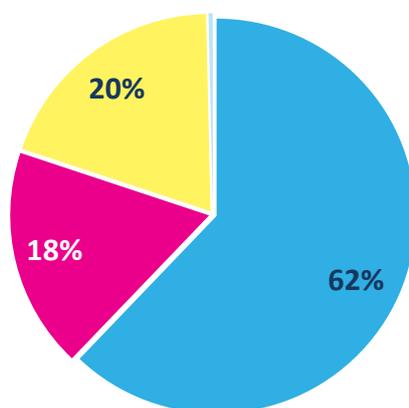


Scientist activity

Answers



Lines of Live chat



Scientist	Profile views	Position
Jesus Calvo-Castro	1,277	Winner
Michael Kyriakides	1,020	2nd
Baljit Gatora	828	3rd
Maire Gorman	707	4th
Arlene McBroom	540	5th

Key figures from the Spectroscopy Zone and the averages of the November zones

PAGE VIEWS	SPECTROSCOPY ZONE	NOV '15 ZONES AVERAGE
Total zone	24,090	25,973
ASK page	1,414	1,881
CHAT page	4,121	3,193
VOTE page	1,559	1,761

	SPECTROSCOPY ZONE	NOV '15 ZONES AVERAGE	IAS 2012-15 AVERAGE
Schools	16	16	9
Students logged in	462	481	353
% of students active in ASK, CHAT or VOTE	84%	90%	85%
Questions asked	719	956	717
Questions approved	202	352	307
Answers given	343	463	552
Comments	14	59	78
Votes	369	377	281
Live chats	19	19	14
Lines of live chat	4,256	6,083	4,827
Average lines of live chat	193	313	322

Popular topics

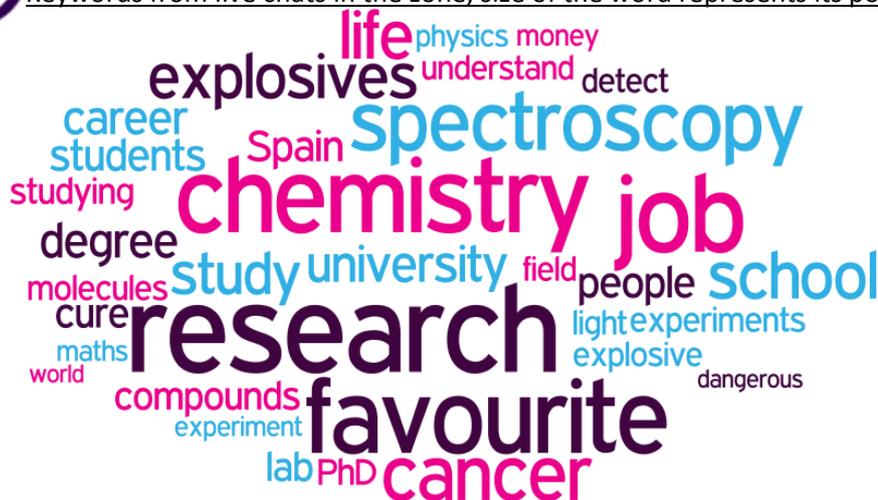
The questions in this zone were focused on the scientist's research, with many questions in the ASK section related to the scientist's methods and subject areas. For example, Baljit was asked about analysing different materials, Arlene discussed X-rays and samples, Jesus talked about explosives, and Michael was asked how the iKnife which detected cancer worked. Spectroscopy was most often mentioned in questions asking each scientist how they used it in their research.

Students often asked questions about the broader topics related to the scientist's work, for example questions about space and alien life stemmed from Maire's work analysing starlight, and Michael was asked about cancer in general, following on from his work in researching new ways of treating it.

Many questions were related to personal experiences and were more general about the highs and lows of their careers. Advice for careers, exams and university was also popular topic in ASK and live chats. Other topics in the zone included religion, animal testing and the end of the world .



Keywords from live chats in the zone, size of the word represents its popularity





Keywords of questions asked in the zone, length of bar represents frequency of use

0 1 2 3 4 5 6 7 8 9



Example Questions (click for links)

“Do you guys have time for a social life?”

“In such a technical career path, can it be hard to keep doing things that are artistic or creative?”

“How has what you wanted to do for your job changed through your education?”

“As a researcher, how often do you use spectroscopy?”

“Do you ever get bored of your job?”

“Do you think everything has a scientific explanation?”

“Does your job ever scare you?”

“Is there a possibility that there is a cure for cancer, but the government is keeping us from it?”

“If you find alien life will you be able to name it or will the government have to name it. If you can name it, what would you call it?”

“Do pathogens have specific molecules on them that cause a particular side effect/characteristic?”

“Do other scientists think your work is right?”

“How was spectroscopy discovered?”

“When you analyse samples, what do you mean by a 'Chemical Identity', How do you get a chemical identity?”

“What has been the most unusual/unexpected molecule that you have found? Where did it come from?”

“Because the brain is so sensitive and has so many nerves which, if damaged can cause life changing conditions, isn't it a dangerous process to locate the tumor?”

“Would you say that people like me should look into or be a scientist?”

Examples of good engagement

The students often asked for help with different topics, such as careers or exams. The scientists always provided useful and encouraging advice, for instance in the example below where they discuss broader ideas of what it means to work in science.

“Would you say that people like me should look into or be a scientist?”– Student

“There is no such stereotype of who should be a scientist...when people often see me they get me confused for a student but do not realise I am a scientist! A scientist is someone who would is passionate about making change and challenging ideas...” – Baljit, scientist

“YES!!!!!!!!!!!!!!!!!!!! There are so many careers available in science- not just doing research but also teaching, managing projects, building equipment, testing equipment, doing public outreach, lobbying the government for funding. (I’m sure there are plenty more...)

Keep an open mind. Attend careers talks. Speak to people. Ask questions. There is a role for everyone to play in science” – Maire, scientist

“I think most of people have a potential scientist inside! Are you curious about everything that surrounds you? Then you can be a scientist. Keep you career options open and do something you are passionate about. There is nothing like having a job that you really enjoy...it does not feel like having a job!” – Jesus, scientist

Scientist winner: Jesus Calvo-Castro

Jesus’ plans for the prize money: *“I would record my days at work to try and increase student engagement into Chemistry and Science”*. Read Jesus’ [thank you message](#).



Student winner: ilovescience123

For great engagement during the event, this student will receive a gift voucher and a certificate.

Feedback

We’re still collecting feedback from teachers, students and scientists but here are a few of the comments made during the event...

“I think you have inspired me to become a scientist” – SuperSonicSaskia, student

“I like it that you can speak to actual scientists and look further into their work.” – BloodMoon, student

“I really enjoyed the chats. Bit hectic at times but great fun!”– Michael, scientist

“There is no better way to test how much you know about something than trying to explain it to someone with a more limited background on the topic.” – Jesus, scientist