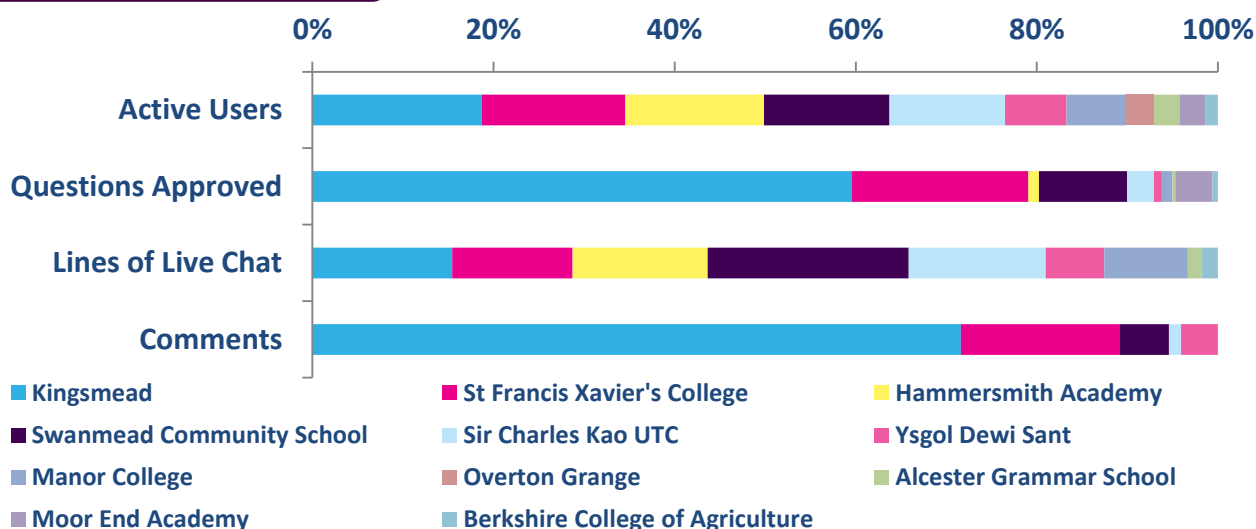


March 2015

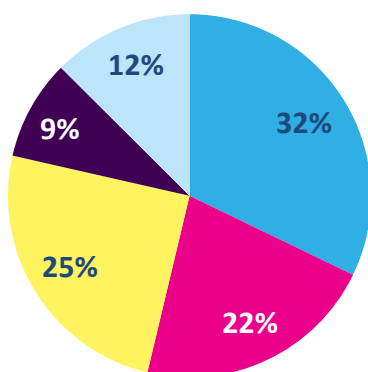
The Molecules Zone was a themed zone that included scientists illustrating the diversity of chemistry. Their backgrounds ranged from drug development, to alternative fuels, to researching novel chemical reactions. This zone was one of the most active during March and the scientists did well to keep up with the 334 approved questions and engage with the students during busy live chats. The number of comments left in ASK (89) was nearly twice the average for March (45). The 338 votes cast was also above average for *I'm a Scientist*. Question topics in the Zone were not purely focused on chemistry and this resulted in the feeling of a general science zone.

School data at a glance

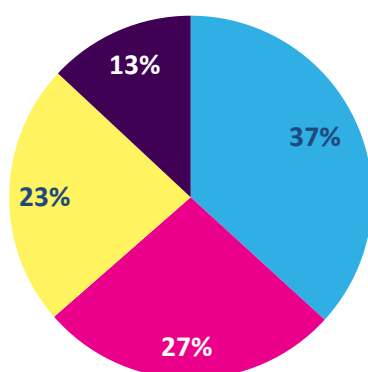


Scientists activity

Answers



Lines of live chat



Scientist	Profile views	Position
Peter Maskell	1,404	Winner
Anais Pujol	1,143	2nd
Shreesha Bhat	755	3rd
Alexander Henderson	709	4th
Sarwat Iqbal	645	5th

Key figures from the Molecules Zone, and the average of the March zones

PAGE VIEWS	MOLECULES ZONE	MARCH '15 ZONES AVERAGE
Total zone	33,396	36,564
ASK page	2,288	2,481
CHAT page	3,098	4,878
VOTE page	2,177	2,422

	MOLECULES ZONE	MARCH '15 ZONES AVERAGE	IAS AVERAGE
Students	405	383	338
% of students active in ASK, CHAT or VOTE	88%	87%	83%
Questions asked	814	496	713
Questions approved	334	238	297
Answers given	830	495	540
Comments	89	45	86
Votes	338	299	270
Lines of live chat	4,853	5,467	4,437
Live chats	15	17	13
Average lines of live chat	324	331	335
Schools	11	10	8

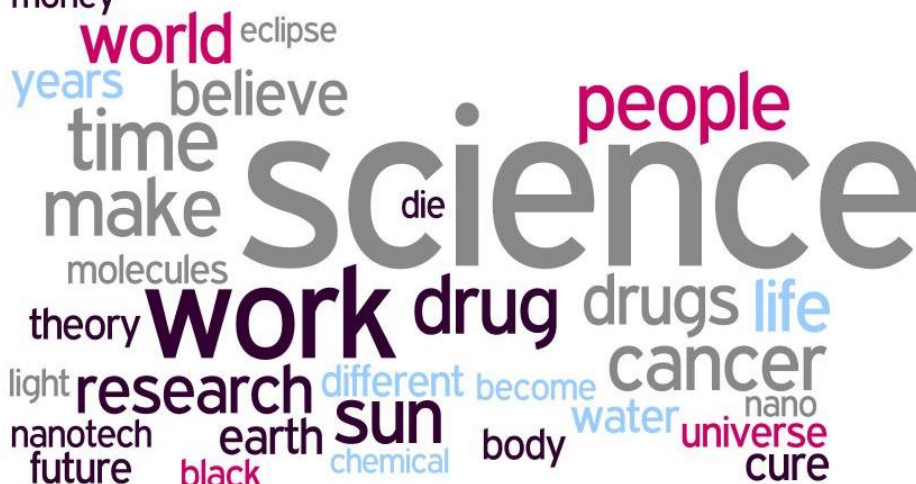
Popular topics

In addition to questions about chemistry, the students were able to get answers to questions covering the whole spectrum of science. Topics covered were very varied, from gravity, to evolution, to cancer drugs, to nanotechnology, to energy production. Space was a prevalent theme, possibly caused by the proximity to the zone of a solar eclipse. Students were keen to know about the possible existence of life in the universe, what lies outside of known space, and the idea of going to Mars. Students were keen on commenting on the scientist's answers in this zone, often adding their own thoughts on a topic.

Live chats were particularly lively, and some interesting discussions were able to happen. Popular topics were radiation and nuclear bombs, black holes, the upcoming eclipse, and the researcher's experiences during their career and even the use of stem cells to replace killing animals for food. The students were also interested in Shreesha's opinion on science in England compared to his experience of working in India.



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)

"How come some drugs take longer or don't work on some people?"

"What chemicals are in makeup?"

"How long do you think it will be before the environment is free of chemical pollution?"

"Which molecule do you think has the most exciting development prospects, and why?"

"Why does soap clean and how?"

"How do they make fake snow?"

"How do vaccines work?"

"What materials are used for wheelchairs and crutches?"

"Why do chillies burn even through they're cold?"

"What is stopping us developing fusion reactors and why can't we harness the energy that is released?"

"What is the theory behind the island of stability?"

"Is there any difference to working in India to England?"

"If there are other life forms can humans fertilise with them?"

"Why do we have allergic reactions to somethings?"

"What are the worst two chemicals to mix and why?"

Examples of good engagement

The scientists often responded to questions with in-depth answers that included links to outside material for further information, and talked about new developments in science:

"What is stopping us developing fusion reactors and why can't we harness the energy that is released?" – Student

"The problem we have at the moment is that we have two problems

- 1) Sustained confinement – we need to be able to confine the reaction so it becomes self-sustainable.*
- 2) Choice of container materials – making a container that can withstand long term damage from the reaction. We seem to be moving closer. Hopefully we will crack it one day." – Peter, scientist*

"The present technology till now used was a tokamak, in which the superhot plasma (formed by heating the gas containing hydrogen ions) is controlled by strong magnetic fields that prevent it from touching the sides of the vessel and, if the confinement is sufficiently constrained, the ions overcome their mutual repulsion, collide and fuse to form helium. It so happens that in this case, they can only contain the plasma to a certain extent (which is very low), if they increase the magnetic pressure, the confining 'tire' will fail and burst.

In case of the technology used by Lockheed, instead of using tubular rings, they use a series of superconducting coils to contain the plasma, and have a self-tuning feedback mechanism, whereby the farther out the plasma goes, the stronger the magnetic field pushes back to contain it. So, it's a really promising approach. Let's see if this materialises in near future. I would bookmark this website for future developments" – Shreesha, scientist

Scientist winner: Peter Maskell

Peter's plans for the prize money: *"I have decided to donate my prize money to Anaïs Pujol, the runner up. I was particularly impressed by her idea to setup a science fair at GSK allowing students to interact with various scientist. But don't worry as promised I will still be developing and purchasing resources that I can use to take into schools to better explain forensic toxicology and make my outreach more interactive."*



Read Peter's [thank you message](#).

Student winner: Thomas

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...

"This is BANTA"- Student

"This has been great experience to me, I hope we can chat again some other time <3" – Dr.Brian, student



[Alexander Henderson](#)
@bbqegg

Big thanks for everyone who helped and took part in #IASUK. Huge fun and I really enjoyed myself!