

March 2020

The Molecule Zone was a chemistry themed zone supported by ScotCHEM. There were six scientists taking part in the zone:

- Zahra Rattray, from University of Strathclyde, is researching about how to develop new chemotherapy medicines.
- Peter Brown is a PhD student at University of St Andrews, working on building more efficient and durable solar panels to combat climate change.
- Mairi Littleson is a Medicinal Chemist at University of Dundee, researching how to make new molecules that could be used as medicine.
- Elliott Reedy is a PhD student at University of Edinburgh, studying various molecules that are thought to be present in gas clouds and dust between stars.
- Danica Pinto, the zone winner from Heriot-Watt University, uses spectroscopy to study molecules.
- Ane Valera, from University of Aberdeen, makes changes to bugs' DNA to produce a material for car windscreens.

Key figures from the Molecule Zone

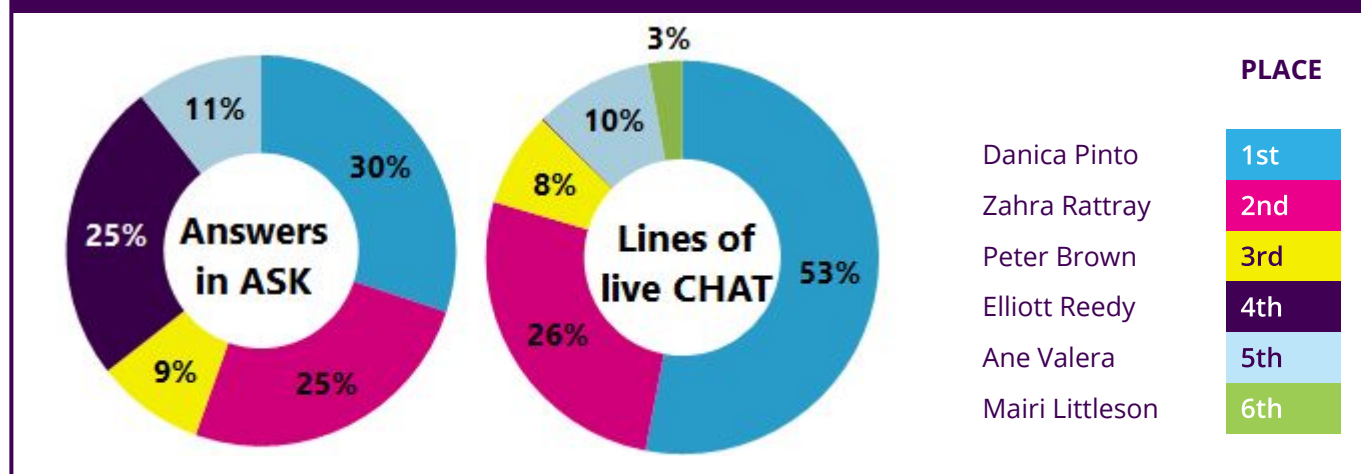
This zone had a lower number of students logged in, and also a lower number of active students when compared to the average number in the March 2020 zones.

This could be because remote Scottish schools were targeted for the zone, with smaller class sizes.

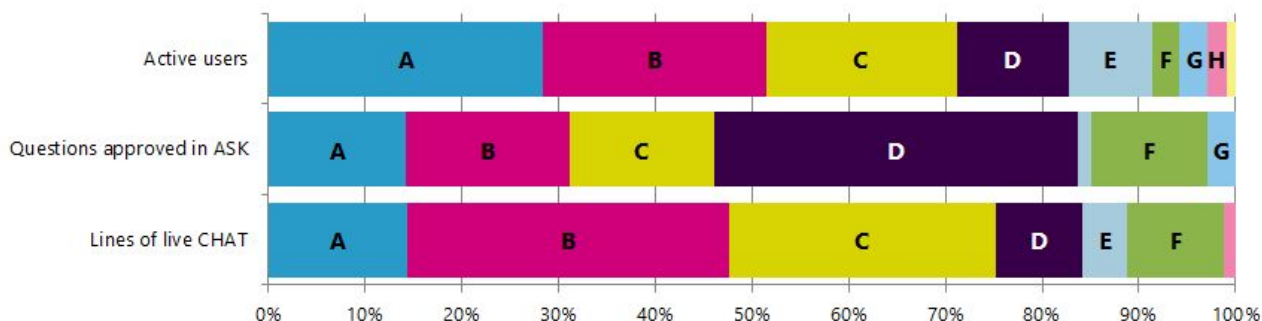
Due to the effects of coronavirus, many schools reported a large number of staff and student absences, which had an impact on their participation in the second week. Students could still access the chat from home so we still opened bookings, but there were a lower number of chats than we would normally see, and they were quieter on average.

	MOLECULE ZONE	MAR '20 ZONES AVERAGE	2012-19 ZONES AVERAGE
Schools	9	7	10
Students logged in	208	300	385
% of students active in ASK, CHAT, VOTE, or comments	62%	86%	87%
Questions asked	330	251	637
Questions approved	141	154	284
Answers given	256	287	512
Comments	26	27	66
Votes	154	204	301
Live chats	15	14	16
Lines of live chat	3685	4869	5,722
Average lines per chat	246	358	357

Scientist activity



School activity



	YEAR GROUP(S)	CLASSES
A Shimna Integrated College, Newcastle (WP)	7	4
B KEPHIR, Houghton le Spring (WP)	7	3
C Alford Academy, Aberdeenshire (U)	8	5
D Auchinleck Academy, East Ayrshire (WP/U)	9	2
E Kirkcudbright Academy, Dumfries & Galloway (U)	STEM Club	1
F Kirkbie Kendal School, Kendal	7	1
G Smithycroft Secondary School, Glasgow City (WP)	9	2
H Dundee and Angus College, Dundee	STEM Club	1
I Walker Technology College, Newcastle-upon-Tyne (WP)	8	1

We want to increase the participation of under-represented groups going into STEM careers. Find out what we mean by our under-served (U) and WP schools (WP), and how you can support us in working with more of these at about.imascientist.org.uk/under-served-and-wp/

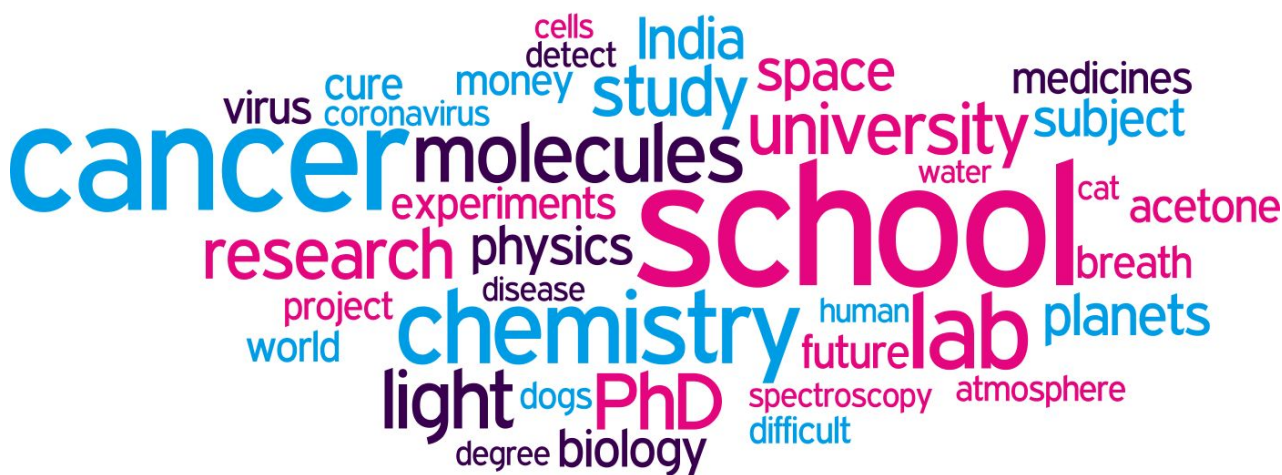
Popular topics

Many discussions in the Molecule Zone were focussed on the scientists work and research. Cancer was a popular topic, with lots of questions about finding a cure, how difficult an area it is to work in particular to Zahra.

There were general science questions about research and the day to day aspects of the chemists' jobs. Almost half of all questions in ASK were about careers and education, with questions about school experiences career paths and qualifications.

Students also got to know the scientists on a personal level, sharing experiences, hobbies, favourite foods and more.

Frequent words used in live chats by students and scientists



Question themes and example questions



Why should we vote for you?

Are there living creatures on Mars?

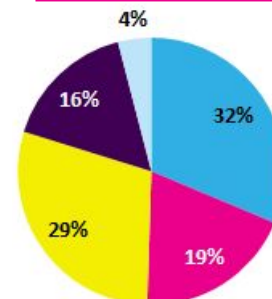
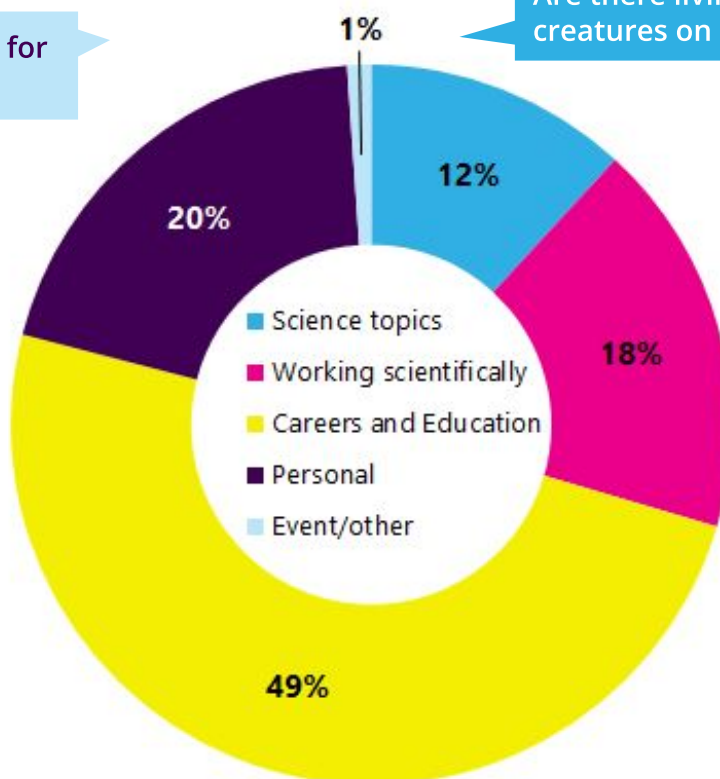
Do you have any dogs if so what kind and what are their names?

Do you agree with the way the world is acting towards the coronavirus?

What is it like to work in a hospital?

Why do you manipulate the bugs DNA?

What qualifications do you require to become a chemist?



Historic Per-Zone Averages

Examples of good engagement


Students asked lots of questions about the scientists research areas, and this opportunity was clearly appreciated by many students:

*"How close are they to curing types of cancer"" – **Student***

*"New drugs are being developed all the time and they are making better treatments. Some types are very difficult to treat but we are making progress" – **Mairi, Scientist***

*"Thank you for chatting you have increased my knowledge of chemistry I can't thank you enough" **Student***


There were many discussions about favourite TV programmes, allowing the students and scientists to connect on a personal level through common interests:


64 **nissan393car:** @all What is your fave TV programme? 🗑️ ⚠️ 💬
Reply.

🗑️ ⚠️ 💬
Danica: @nissan393car: Friends is my all time fav. what about you? 👤
Reply.

🗑️ ⚠️ 💬
Zahra: @nissan393car: I really love Bones and Parks and Recreation :D 👤
Reply.


🗑️ ⚠️ 💬
Elliott: @nissan393car: Also a Parks and Recreation fan here! 👤
Reply.


64 **nissan393car:** @all Mine is Top gear! 🗑️ ⚠️ 💬
Reply.

🗑️ ⚠️ 💬
Zahra: @nissan393car: I really love the shows from David Attenborough. He is a true legend!! 👤
Reply.

🗑️ ⚠️ 💬
Danica: @Mick: I'm a big fan of Planet Earth show too! such an amazing show. 👤
Reply.

🗑️ ⚠️ 💬
Elliott: @item393end: I love skiing too! Hoping to go on a trip in the next year or two! 👤
Reply.


64 **nissan393car:** @Zahra @Danica He is alegend1 🗑️ ⚠️ 💬
Reply.



Scientist winner: [Danica Pinto](#)

Danica's plans for the prize money: *"I would like to use the prize money to sponsor school trips to a local science centre for students in a rural school in India to help them get an exposure to the wonders of science and be inspired. I would also like to use some part of the money to do science activities for school kids in UK."*

Read Danica's [thank you message](#)

Student winner: [zest393car](#)

As the student winner, zest393car will receive a certificate and a gift voucher.

Feedback

We're still collecting feedback from teachers, students and scientists but here are a few of the comments made about March's *I'm a Scientist*...

All our students have thoroughly enjoyed the experience, learned a lot and had something positive to cling to this past week
— Teacher

I would highly recommend I'm A Scientists to my colleagues, as I had an incredible experience. The ability for high school students to ask questions (including some real tough ones) directly is a fantastic outreach tool, and I feel privileged to have taken part.
— Scientist

I think this is a pretty unique method of science engagement! You get the chance to get to know and help some of the students, particularly in the evening chats!
— Scientist

Thank you for answering every question no matter what the challenge!
— Student

This has been really useful. Thank you for taking time to answer us! :)
— Student

Thank you for giving up the time and answering our questions you have informed us with a lot of cool and amazing information
— Student