



Sophie



Simon



Obi



Kelly



John



Jessica

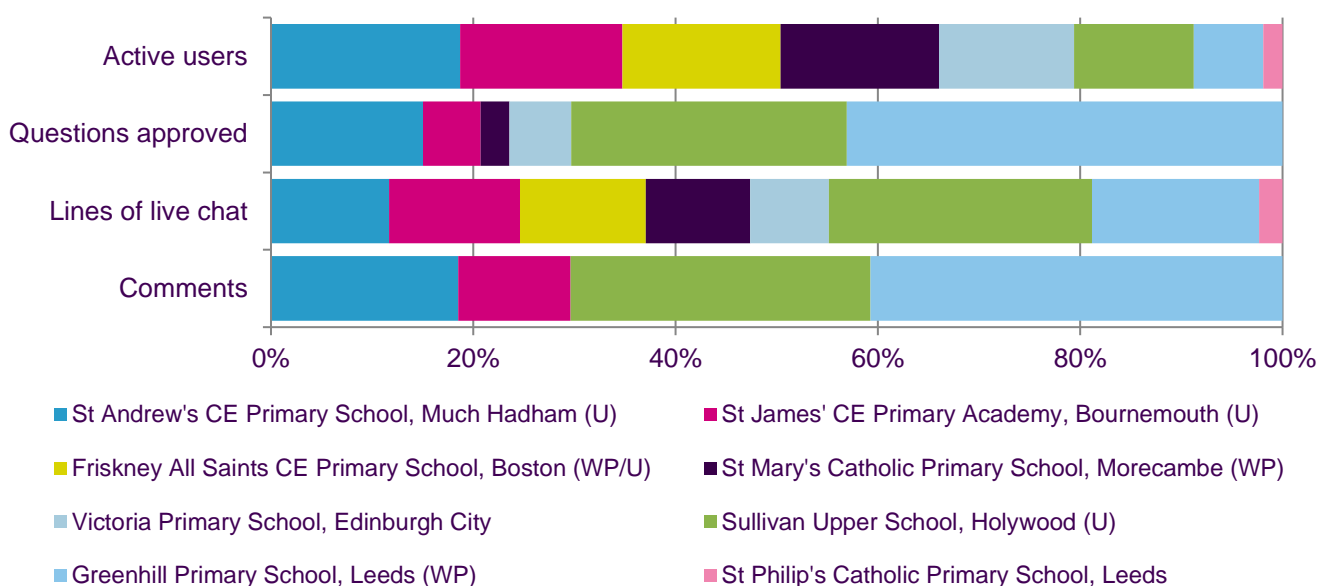
November 2018

The Fermium Zone was a general science zone for primary schools, supported by Wellcome. It featured six scientists:

- Sophie Morse is a PhD student researching how to deliver medicine to the brain using microbubbles
- Simon Cork studies how our brains cause us to feel hungry or full
- Obi Umegbolu is a data analyst skills development coach, helping learners progress in the industry and supporting data analysis projects
- Kelly Rushton, the zone winner, researches mental health and how doctors, nurses and even animals can help patients with mental health issues
- John Midgley works as a technical manager at the British Geological Survey aiming to understand how changing the underground changes the world around us
- Jessica Leung is a quality technician at Kerry Ingredients and tests the flavours that go in our food and drink

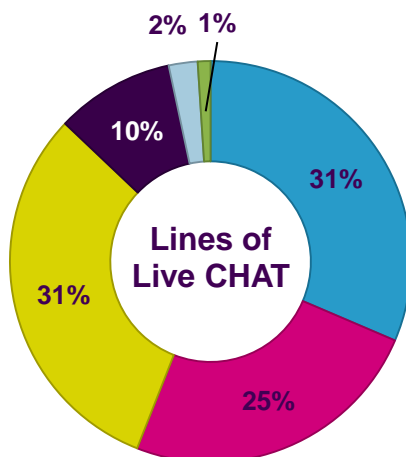
This zone had fewer schools than other November zones, but students still engaged well in live chats. The final live chat, open to all schools, was particularly busy, with students telling the scientist they had joined the chat from home to find out who won.

School data at a glance



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

Scientist activity



SCIENTIST	PROFILE VIEWS	POSITION
Kelly Rushton	284	Winner
Sophie Morse	300	2nd
John Midgley	219	3rd
Jessica Leung	195	4th
Obi Umegbolu	224	5th
Simon Cork	169	6th

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

PAGE VIEWS	FERMIUM ZONE	NOV '18 ZONES AVERAGE
Total zone	9,665	18,272
ASK page	978	1,482
CHAT page	1,156	1,443
VOTE page	382	742

	FERMIUM ZONE	NOV '18 ZONES AVERAGE	IAS 2012-18 AVERAGE
Fermium Zone Schools	8	10	10
Students logged in	333	471	391
% of students active in ASK, CHAT or VOTE	79%	87%	86%
Questions asked	415	711	690
Questions approved	246	337	302
Answers given	370	585	539
Comments	52	57	74
Votes	148	378	307
Live chats	15	21	16
Lines of live chat	6,609	8,300	5,642
Average lines per live chat	441	395	358

Popular topics

In this zone the most popular topics and keywords reflected the scientists who attended most live chats and answered questions in ASK.

'Dog/s' and 'animal/s' were regular topics of conversation, relating to Kelly's work and profile photo. This often led to conversations about mental health and helping people.

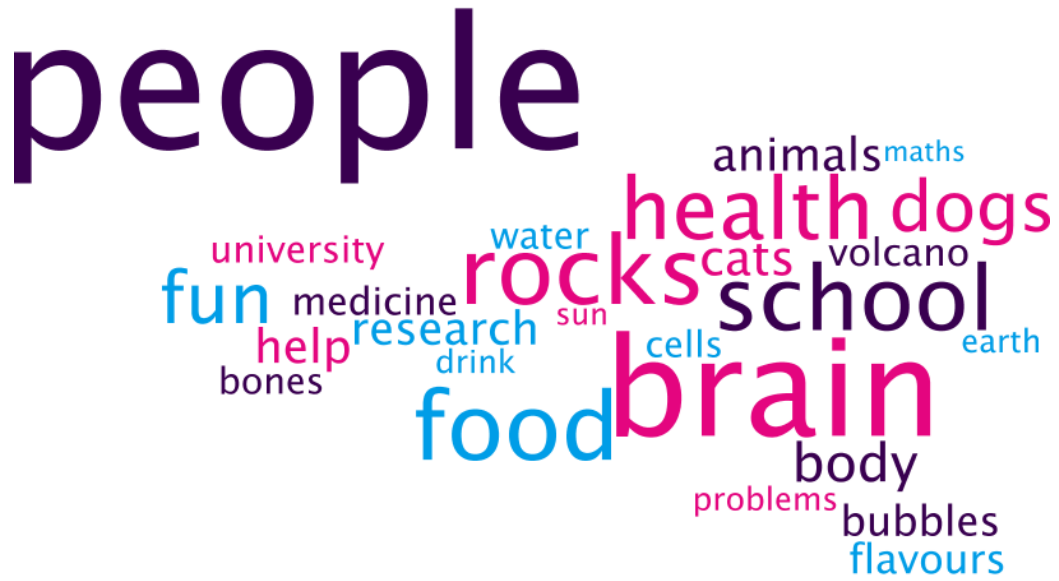
'Brain' was a popular with questions directed to both Sophie and Simon about thoughts, 'tricking the brain' and how to stimulate the brain.

Jessica's work with flavours and food proved popular, with students wanting to know "How many drink flavours have you tested?" and "Is it fun to try different foods?". John's questions in the live chats were often to do with 'rocks' and 'volcanoes'.

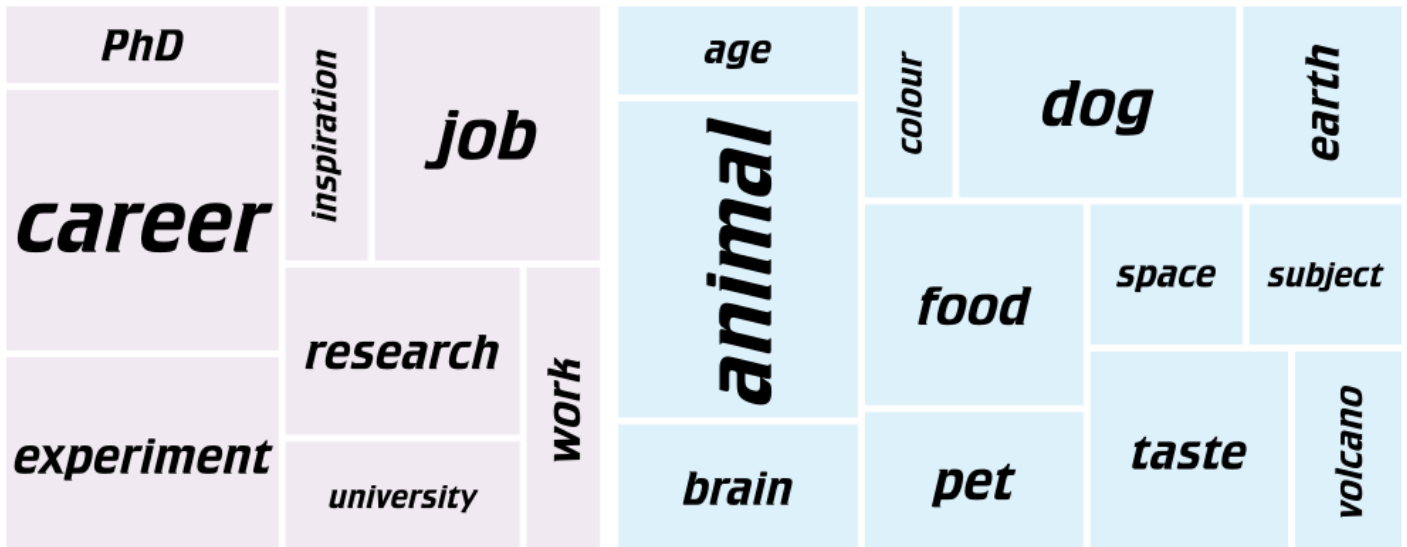
In ASK and CHAT, students wanted to know about university choices and research methods. Career was a very popular keyword in ASK, relating to questions about the scientists' career path and history. 'Job' was used for questions that focussed on a specific role.



Keywords from live chats in the zone. Size of the word represents its popularity



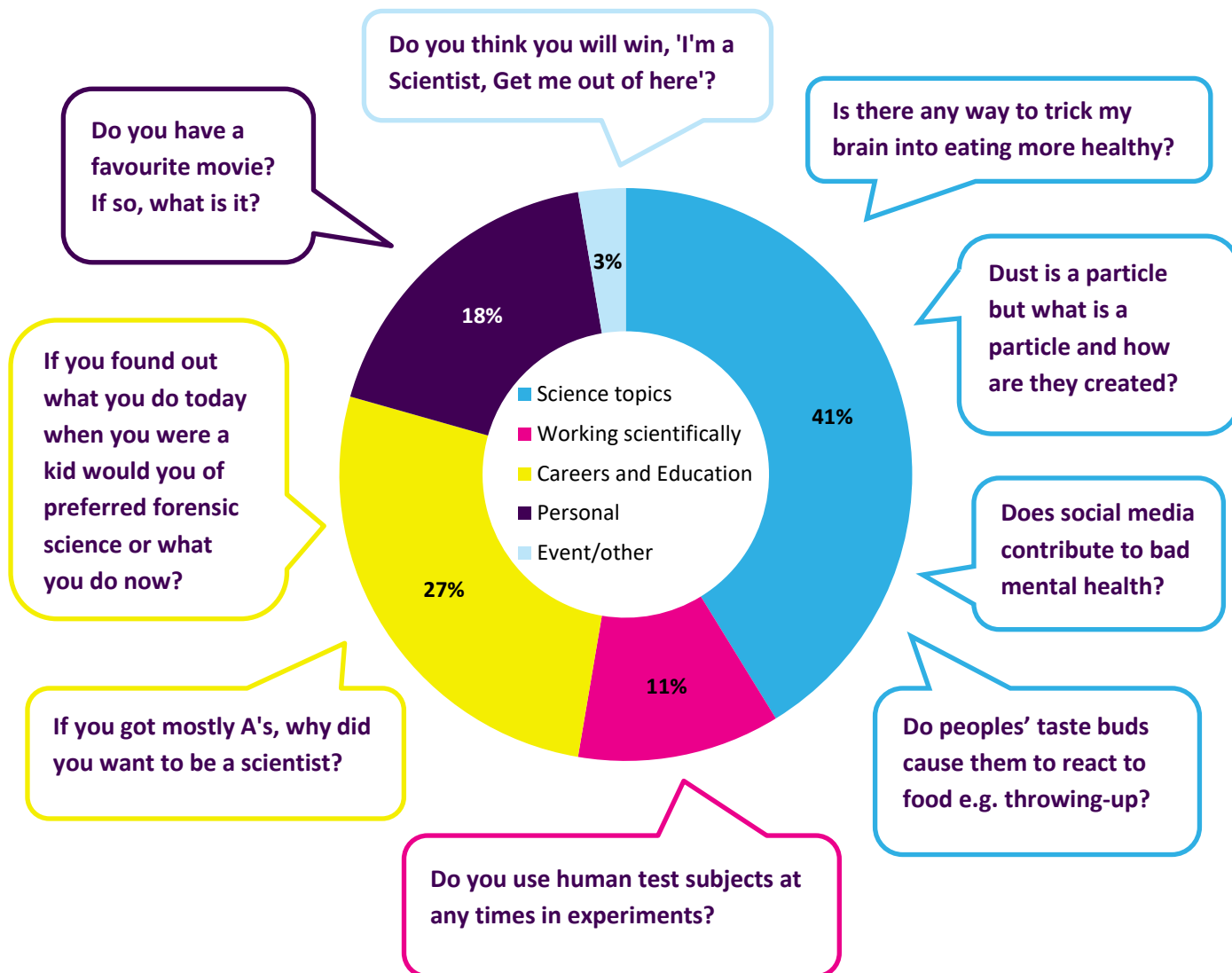
Top Keywords of questions approved in the Zone



■ Being a scientist ■ Science

Question themes and example questions in the Zone

Find out about how we've coded the questions at about.imascientist.org.uk/student-question-coding



Examples of good engagement

Sometimes, a 'simple' question can lead to great engagement between a student and the scientists. By explaining why David Cosgrove was her favourite scientist, Sophie opened up further questions from one student here:

"Who is your favourite scientist?" — **Student**

"My favourite is David Cosgrove, he was the first scientist to use microbubbles for medicine" — **Sophie, scientist**

"do you know how small microbubbles actually are" — **Student**

"Oh yes. They are between 5-10 micrometers in diameter. Microbubbles are so cool! They can help you see things in the body but also cure it" — **Sophie, scientist**

"wow I didn't know they could do that!" — **Student**

"Yeah! And they do everything very gently and safely" — **Sophie, scientist**

"What type of medicine do you put in the brain with microbubbles" — **Student**

"I'm trying to get medicine that will cure Alzheimer's and dementia into the brain" — **Sophie, scientist**

Students were interested in John's work at the British Geological Survey, asking questions about rocks, volcanoes and the earth. They knew statements about these, such as the Earth's core is hot, but wanted to know *why*:

"Hey John? Do you know why volcanos explode" — **Student**

"Yes, gases form in the rock due to the heat and then KABBOOOOM!" — **John, scientist**

"Why does the earth's core have a hot temperature" — **Student**

"It is hot because of the weight of the rock above it - we call that overburden. The weight of the rock pressing down on the core creates pressure, and this pressure is hot." — **John, scientist**

"Thank you John!" — **Student**

Scientist winner: Kelly Rushton



Kelly's plans for the prize money: *"I would like to organise an event to tell people about our work about pets and mental health. I would like to involve Manchester Dogs Home and invite people to come along to meet the dogs and hear about some of the things pets can offer to people who have problems with their mental health."*

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

Student winner: Tiger Claws

For great engagement during the activity, 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 about the Fermium Zone...

I was asked so many intuitive questions by students... They tested my knowledge on so many things and I remembered parts of science that I thought I had forgotten! I also learned so many interesting things from the other scientists in the zone – it makes you realise how vast an area science is, and how young people interested in a career in science have countless options available to them and routes they can take. – **Kelly, zone winner**

I would like to say thank you. Friday when our children went on the live chat, there was so much excitement with the children when they saw the scientist replying. The buzz they got from it was fantastic. It is a long time since I've seen children buzzing from science. – **Teacher**

Feedback

Here are a few of the comments made about November's *I'm a Scientist* activity...

The students were actually cheering when the first scientist answered a question. It was a fantastic moment. – **Teacher**

I have learnt about other scientists' lives and that even if they are scientists they have the same life as us. – **Student**

I have learnt that many scientists did not have any clue as to what they wanted to be when they left school. – **Student**

The whole event probably involved more students from a wider variety of backgrounds than any single real-life event. – **Scientist**

Taking part in *I'm a Scientist* has shown me how vital it can be for us scientists to promote our own research and inform the public (who are ultimately funding many of us through taxes). Moreover, it is such an incredible tool to inspire and engage with the next generation of young scientists still at school. – **Scientist**

I have learned that science isn't just sitting with some test tubes pouring them into a big pot and that they are real, rather interesting jobs that I could consider going into. – **Student**