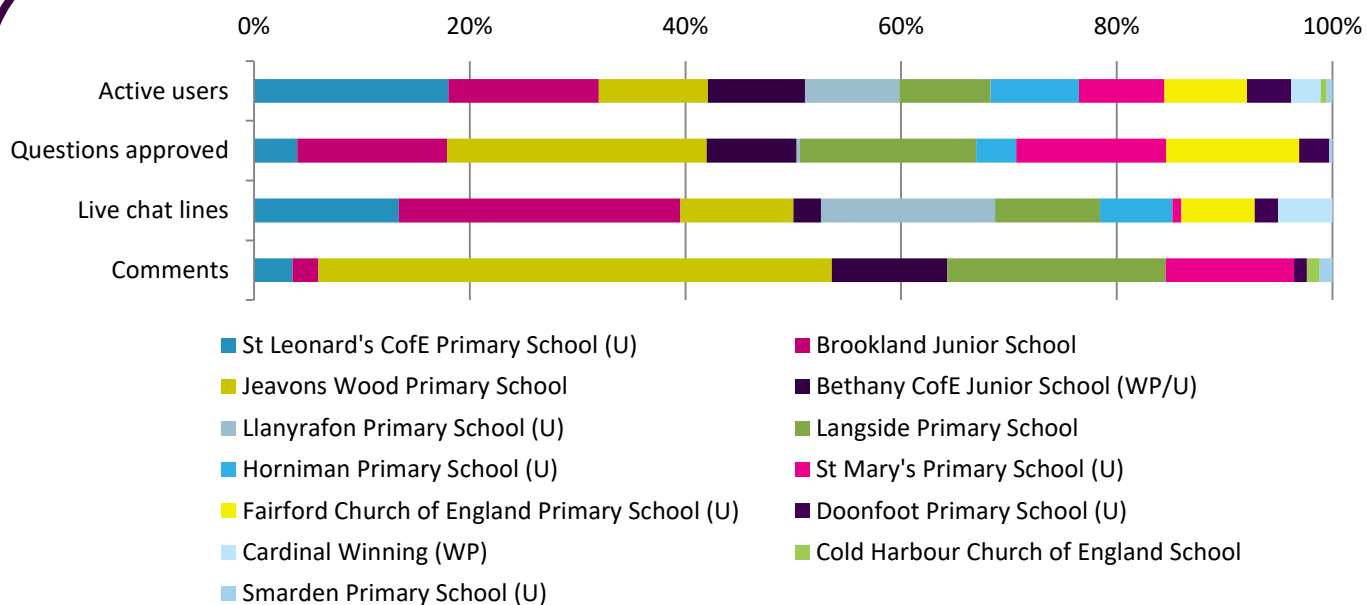


## November 2017

The Plutonium Zone was a themed Zone supported by Wellcome, specifically for Primary School students. Simonne is a biomedical scientist who tests patients' blood to help doctors work out which medicine to give them and Senga, the winner of this Zone, is a PhD student researching ways to make plants grow better using DNA from bacteria. Pete works for a drugs company using bacteria to improve their products, James is an archaeologist studying how human brains have evolved and Jake is an applied mathematician looking into why fluid or gasses can change from being smooth to chaotic.

This Zone had a high number of questions from students in Ask about a variety of science topics, as well as the scientists' work. All the scientists were great at explaining things in simple terms and building up a relationship with the students. Senga often talked about her 'fake poo' experiment as which the students found hilarious and were very interested in, and Senga often shared the experiment with teachers after the chat so students could carry it out. Senga also visited one of the schools – Doonfoot Primary – the week after the event to do the experiment with the students.

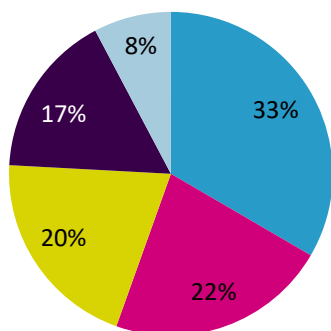
### School data at a glance



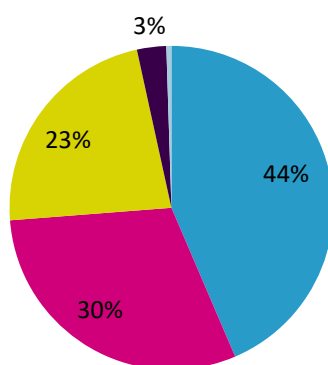
We want to increase the participation of under-represented groups going into STEM careers. Find out what we mean by our under-served (U) and WP schools (WP), and how you can support us in working with more of these at [about.imascientist.org.uk/under-served-and-wp/](http://about.imascientist.org.uk/under-served-and-wp/)

## Scientist activity

### Answers



### Live chat lines



### SCIENTIST

### PROFILE VIEWS

### POSITION

Senga Robertson-Albertyn	1,219	Winner
Pete Gwynne	1,065	2nd
Jake Langham	773	3rd
Simonne Weeks	962	4th
James Cole	708	5th

## Key figures from the Plutonium Zone and the averages of the November zones

PAGE VIEWS	PLUTONIUM ZONE	NOV '17 ZONES AVERAGE
Total zone	22,780	23,372
ASK page	2,027	1,777
CHAT page	1,489	1,997
VOTE page	1,367	1,892

	PLUTOIUM ZONE	NOV '17 ZONES AVERAGE	IAS 2012-17 AVERAGE
Schools	13	13	10
Students logged in	466	483	385
% of students active in ASK, CHAT or VOTE	79%	87%	85%
Questions asked	928	588	705
Questions approved	318	273	305
Answers given	530	569	544
Comments	137	68	75
Votes	323	378	302
Live chats	17	19	16
Lines of live chat	5,167	7,384	5,394
Average lines per live chat	304	398	350

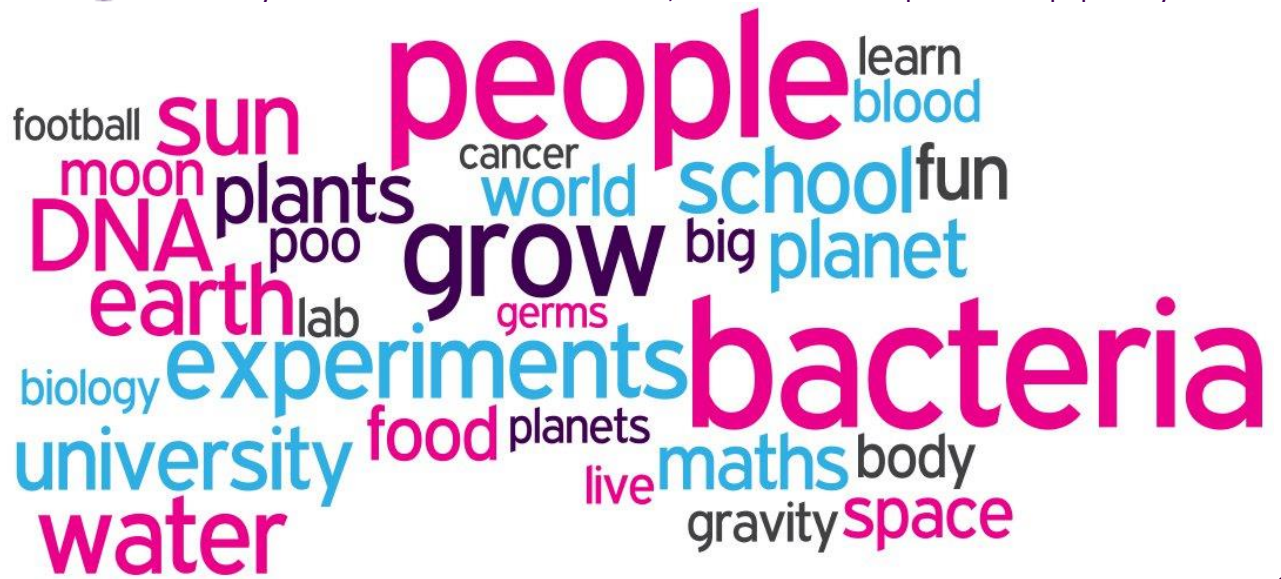
## Popular topics

Pete included a video of his day on his profile, which lots of students were interested in and was a good talking point, leading them to ask him about the different experiments he was doing in the video. All the scientists were asked about the experiments they do, whether they find them hard and if they have ever failed in an experiment. Students were surprised to find out that Jake doesn't do many experiments within his job as a mathematician. Simonne was asked about blood, what it looks like under the microscope and how she tests it. Students asked her whether doing blood tests makes her a nurse, rather than a scientist.

Space was a very popular topic, and even though this is outside the scientists areas of research they were all great at answering questions on gravity, black holes and planets.

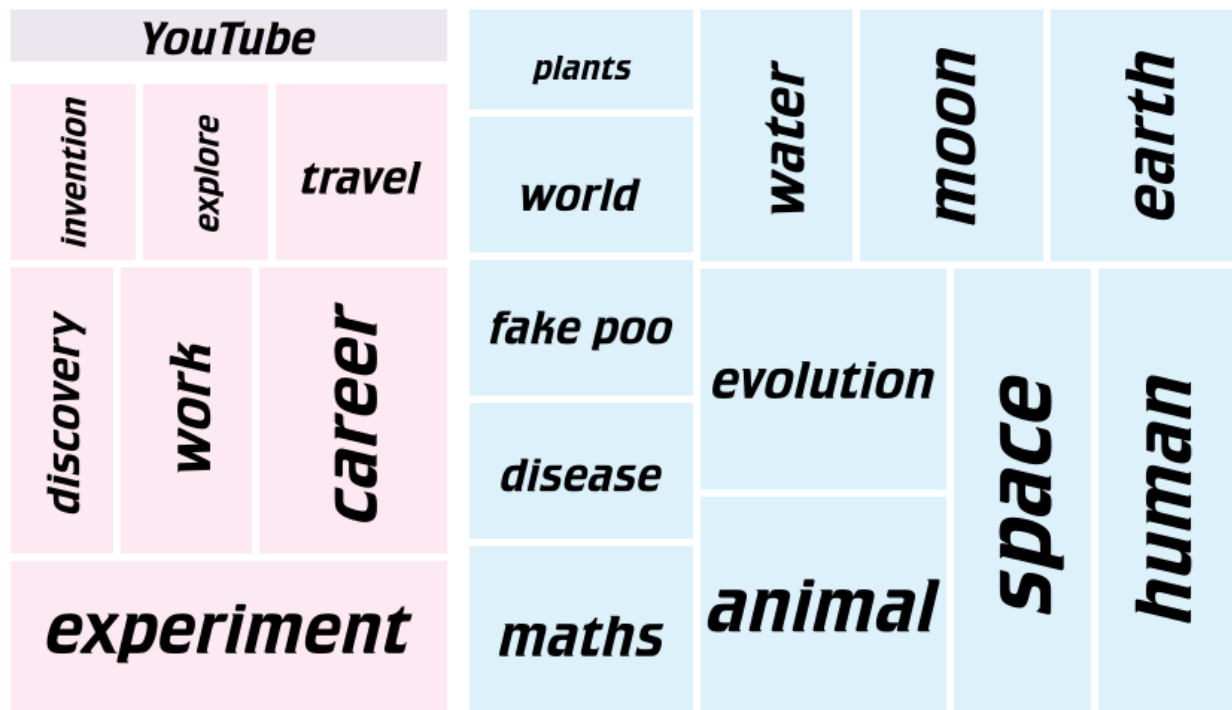
Lots of students wanted to know how the scientists' work was helping people or the environment, and whether they helped any charities. They also asked whether they help charities and got to know the scientists on a personal level through conversations about their favourite foods and games.

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



### Top Keywords of questions approved in the Zone

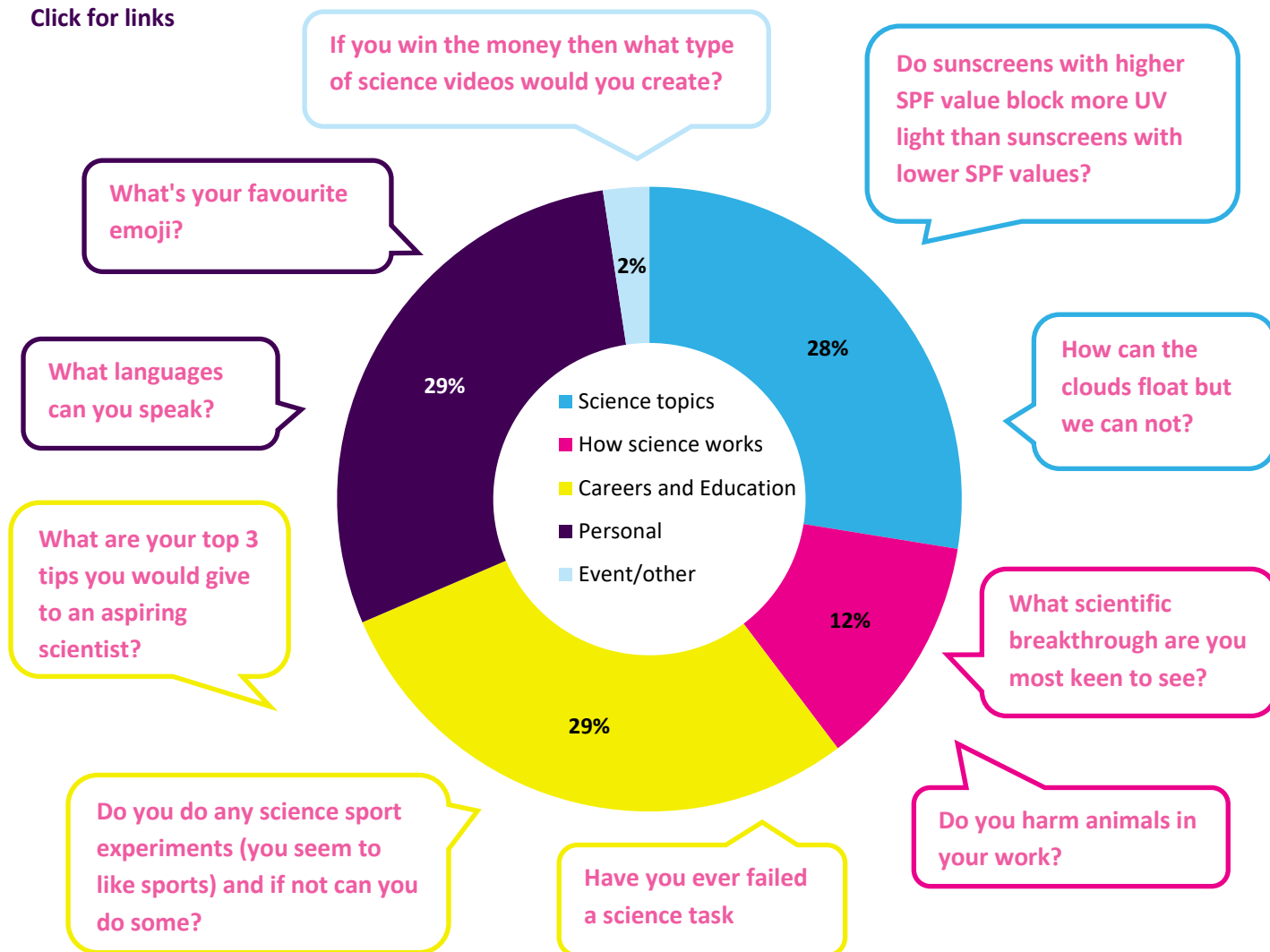
**Area represents frequency of use**



■ Being a Scientist   ■ Science   ■ Other

## Question themes and example questions in the Zone

Click for links



Find out about how we've coded the questions at [about.imascientist.org.uk/2017/student-question-coding](https://about.imascientist.org.uk/2017/student-question-coding)

## Examples of good engagement

Scientists were great at building a rapport with students, making the chats fun and lighthearted, whilst making their answers interesting and suitable for younger students:

*"Does Mars taste salty? That's what Pete said!?!?!?!?" – Student*

*"Why don't you believe me?! NASA found saltwater there!" – Pete, scientist*

*"Well you should listen to Pete. (Though I would hazard a guess that it depends quite a bit on which bit of Mars you try to eat.)" – Jake, scientist*

*"Personally, I haven't licked Mars so I had a look on the internet and I think Pete is right. Scientists saw what looked like water flowing down crater walls on Mars in images/ time lapse videos taken by the Reconnaissance Orbiter so they checked it out. They used something called an Imaging Spectrometer to work out what this liquid was made of and it turns out it's REALLY salty water." – Senga, scientist*

*“So what does the moon taste like?” – **Student***

*“The moon probably tastes like rock BUT according to Apollo 16 astronaut Charlie Duke it tastes a bit like gunpowder. I don’t know what gunpowder tastes like and I have no idea why Charlie Duke was licking the moon but who am I to judge ha ha’ – **Senga, scientist***

### **Scientist winner: Senga Robertson-Albertyn**

Senga’s plans for the prize money: *“I’d invite schools (from areas that don’t normally get the chance) to come and do some fun experiments with us for a day. There will be pizza, goody bags and NO HOMEWORK!!! (woo hoo!)*

*We have everything we need to run the fun day so I would spend all of the £500 prize money on transport (£300), pizza (£100) and goodybags (£100) for the schools invited so no one would miss out if their family had trouble paying for transport or a packed lunch. I think that everyone should have access to science and have equal opportunities to be as awesome as they can possibly be in whatever they want to be.”* Read Senga’s **thank you message**.



### **Student winner: tumblebum**

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...

*“It is so exciting talking to real scientists. Thank you so much.” – **Student***

*“I realised that although I think what I study is found boring by kids, that, actually, it’s not. It’s given me so much confidence in my research. The experience has been truly fantastic” – **Senga, scientist***