



Ollie



Hermine



Guy



Christine



Angus

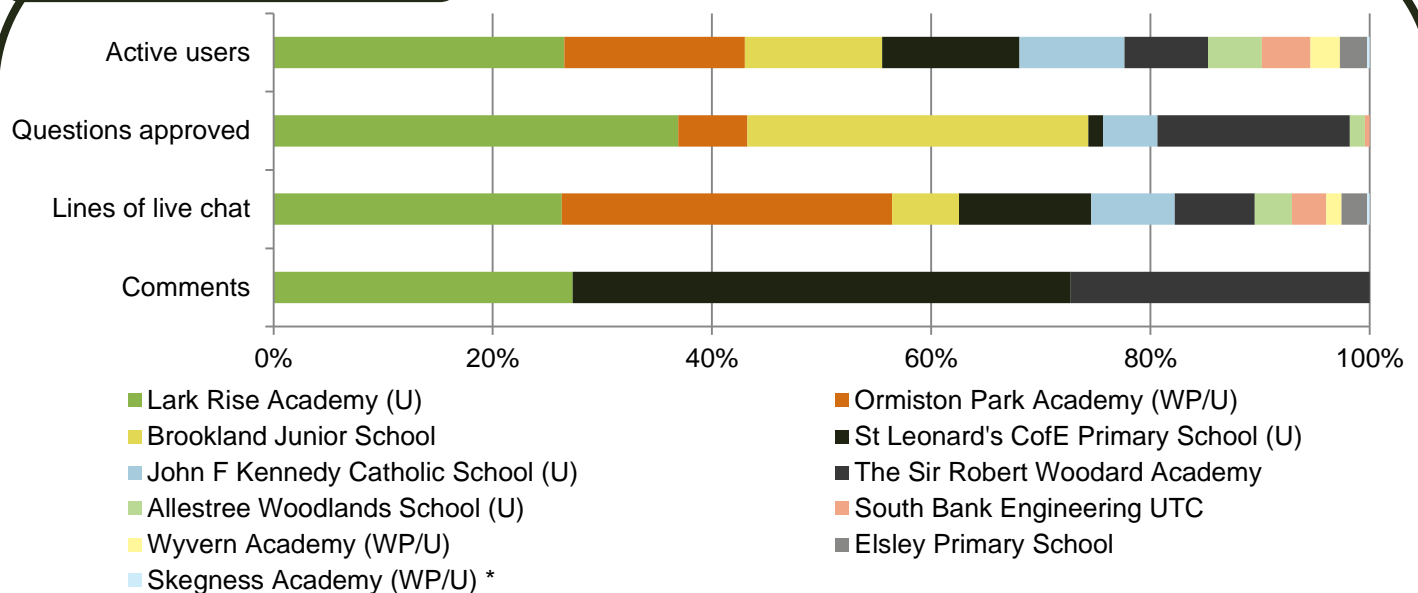
## March 2018

The Space Telescope Zone was funded by the UK Space Agency, with five engineers working in different areas:

- Ollie is a PhD student studying how black holes move and how they affect the space they move in
- Hermine designs and makes telescopes and instruments that can be used to find out more about the universe
- Guy, the winner of this zone, writes software for space telescope missions that are trying to find exploding stars and new planets.
- Christine is a PhD student studying gravitational waves
- Angus is currently working on the design of an instrument for the James Webb Telescope.

The engineers in this zone showed an obvious enthusiasm for their field which came across in their conversations with students in both live chats and Ask. All the engineers were great at explaining complex topics in an accessible way, with Guy and Ollie making up nearly 45% of all activity by engineers. Some of the engineers were at conferences in Lyon and Madrid during the second week of the event, and took part in chats and Ask during their time away.

### School data at a glance

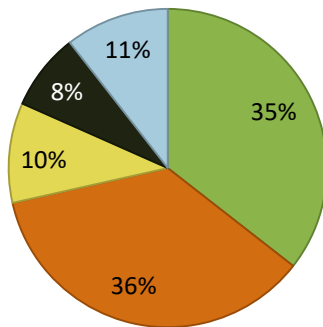


We want to increase the participation of under-represented groups going into STEM careers. Find out what we mean by our under-served (U) and WP schools (WP), and how you can support us in working with more of these at [about.imascientist.org.uk/under-served-and-wp/](http://about.imascientist.org.uk/under-served-and-wp/)

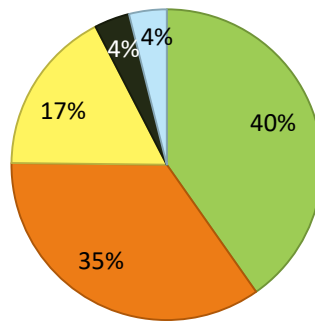
\* Students were able to join other zones than their own to join open live chats and ASK questions. Students at these schools joined from other zones in the March event.

## Engineer activity

### Answers



### Lines of chat



ENGINEER	PROFILE VIEWS	POSITION
Guy Rixon	507	Winner
Ollie Burke	689	2nd
Hermine Schnetler	322	3rd
Christine Simpson	398	4th
Angus Gallie	313	5th

## Key figures from the Space Telescope Zone and the averages of the March zones

PAGE VIEWS	SPACE TELESCOPE ZONE	MAR '18 ZONES AVERAGE
Total zone	10,893	14,904
ASK page	615	1,061
CHAT page	1,326	1,692
VOTE page	699	1,324

	SPACE TELESCOPE ZONE	MAR '18 ZONES AVERAGE	IAE 2012-18 AVERAGE
Schools	11	13	11
Students logged in	459	458	410
% of students active in ASK, CHAT or VOTE	89%	88%	85%
Questions asked	847	597	611
Questions approved	222	181	225
Answers given	256	300	448
Comments	37	42	45
Votes	225	322	306
Live chats	20	20	18
Lines of live chat	6,161	7,154	5,575
Average lines per live chat	308	367	319

### Popular topics

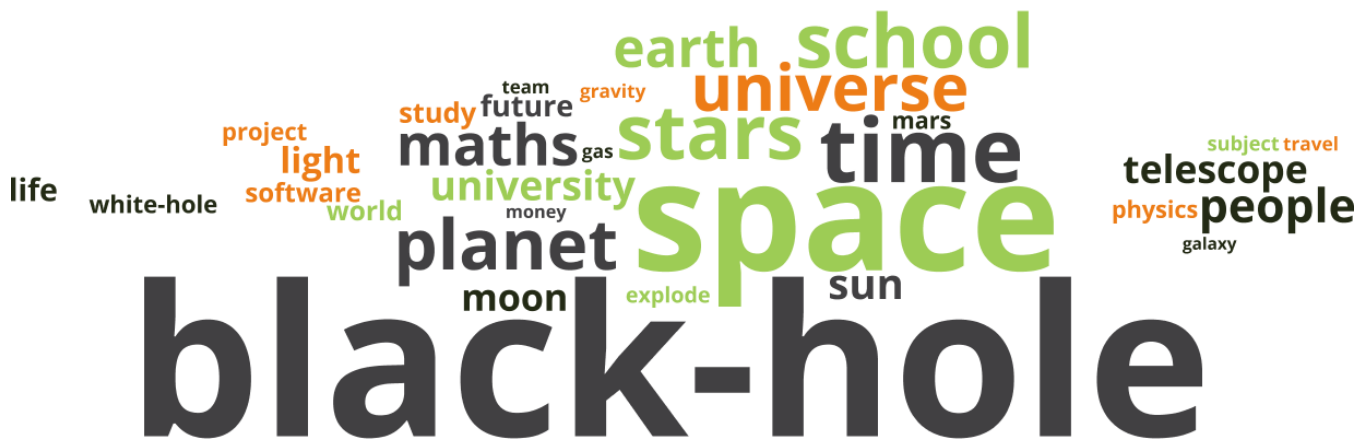
Students were interested in the work of the engineers. Guy was asked about the telescope he is currently working on, when it will be finished, the size of it and what it will be used for. Black holes were a very popular topic, and Ollie received lots of questions about how they were discovered, where they lead to, what they are made of and why he chose to investigate them.

Students were really engaged with the zone theme and there were lots of general questions about space, with students interested in stars, the sun and the moon, as well as asking the engineers their opinions on topics such as life on other planets and when the world might end.

Students asked about the engineers' experiences in school – what their favourite subjects were and what their teachers were like. They wanted to know what inspired them to become engineers and choose the area they are now working in, and whether they would recommend their jobs. Lots of students wanted to know if they could be an engineer too, and all of the engineers were very encouraging, giving good advice for interested students.

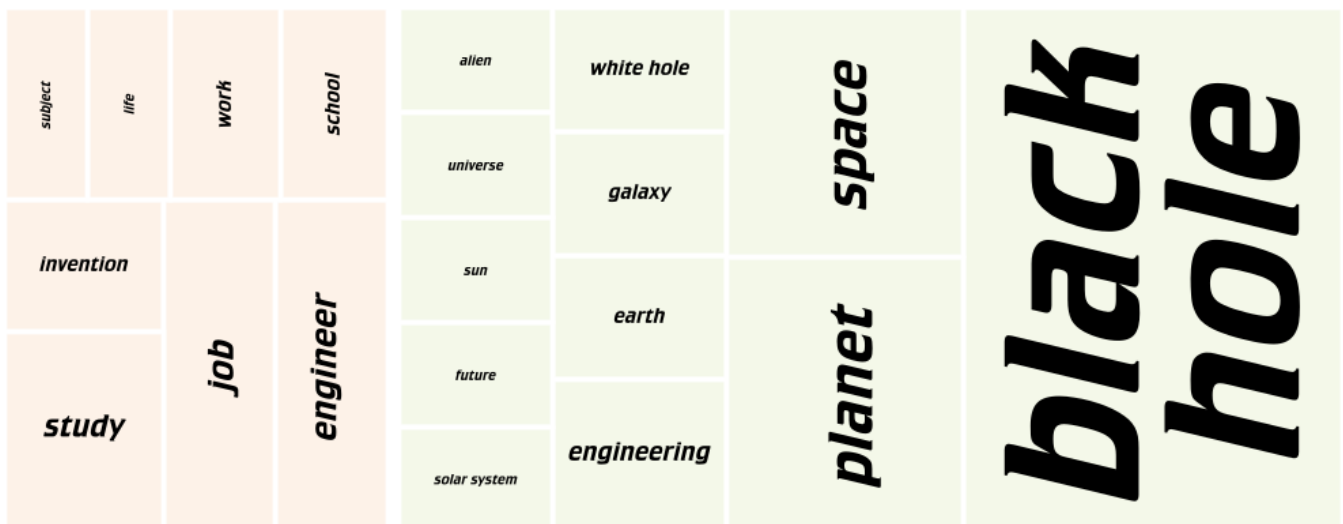


Keywords from live chats in the zone, size of the word represents its popularity



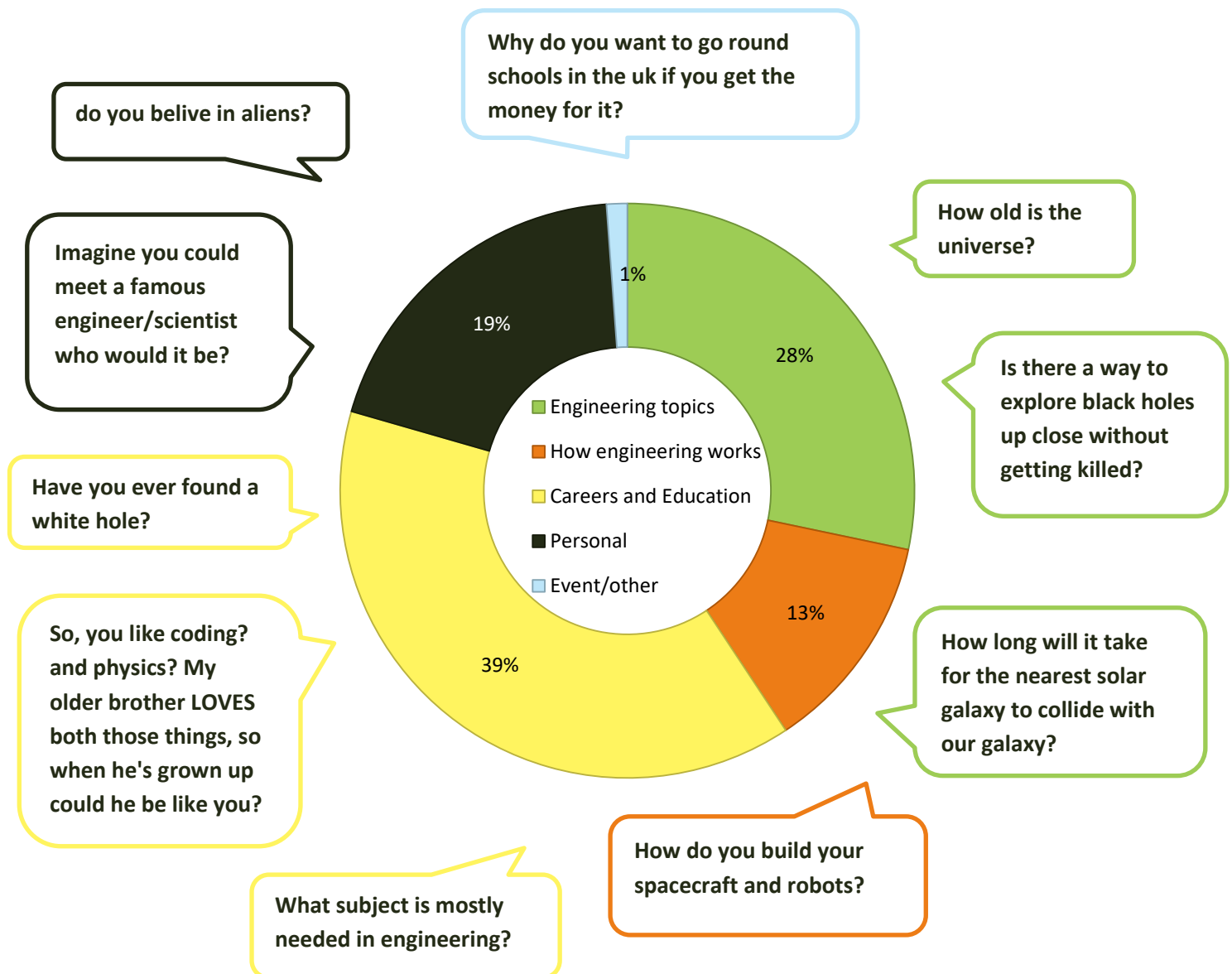
### Top Keywords of questions approved in the Zone

Area represents frequency of use



Being an engineer    Engineering

## Question themes and example questions in the Zone



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

There were some great conversations in the chats where students asked about women in engineering, and how they could become engineers too.

*"Do you have any girls on your team?" – Student*

*"Of course! There are many girls that are doing a PhD in mathematical physics/statistics!" – Ollie, engineer*

*"How do you think girls can get into science?" – Student*

*"It is SO important that girls get into science. I'm very passionate about promoting STEM (science, technology, engineering, mathematics) subjects to girls because engineering does NOT depend on gender =)" – Ollie, engineer*

*"I'm an eleven-year-old girl - if I wanted to become an engineer, what will I need to do?" – **Student***

*"Oooh... Work hard in maths and sciences definitely! Work hard in school, make some good friends and enjoy yourself! You can do it!" – **Ollie, engineer***

There was lots of interest in the possibilities of life on other planets and how engineering can help us to find this out.

*"Do you think there is another solar system with life on it out there?" – **Student***

*"Most likely, we just have to find it 😊" – **Hermine, engineer***

*"I think there might be! Astronomers are doing a lot of work to try and find a star with a planet which might be a bit like our earth. I worked on a telescope in the Canary Islands which is doing this kind of work. My main project right now is working on the design of the world's largest telescope. This telescope will hopefully be able to provide actual images of an earth-like planet!" – **Angus, engineer***

*"Yes, and I think we'll find one within the next ten years. I think that the life will be quite simple, like bacteria. We wouldn't be able to see the lifeforms directly, but we'd be able to detect the chemicals they leave in the planet's atmosphere." – **Guy, engineer***

### **Scientist winner: *Guy Rixon***

Guy's plans for the prize money: "At Cambridge, we have observing sessions for the public using the University's telescopes. It can be exciting and inspiring for young visitors to see the sky through proper telescopes. We have some nice telescopes for eyepiece observing, but no way for the visitors to make photographs to take home. A camera 'phone can take a good picture from a telescope, but it needs a mount to hold the 'phone in the right place. I can make a range of mounts for different 'phones by 3D printing, given the money to buy the prints." Read Guy's [thank you message](#).



### **Student winner: *Ozzlord***

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...

"Fabulous experience for pupils. We love the interactive chatting" – **Teacher**

"This event has been a chance to re-evaluate my life, and your questions speak to my deep fears at a time of doubt in my career." – **Guy, engineer**