

March, 2019

The Space Zone was a themed zone supported by the UK Space Agency. There were six engineers:

- Vinita Marwaha Madil, who plans operations at the European Space Agency (ESA) for future human spaceflight projects.
- Rachel Hudson helps to build and test instruments for two ESA missions to Jupiter and the Sun.
- Pam Anderson, an ambassador for the ESA, helps people understand how they might use space technology for the benefit of life on Earth.
- Christopher Youens, a Spacecraft Operations Engineer takes care of four satellites that perform Earth Observation.
- Brian Weaver, the winner of the zone, uses satellites that fly 20,000 km around the Earth to guide driverless tractors in farms, or ships in the ocean, all around the world.
- Andrew Ratcliffe is the Head of Launch Systems at the UK Space Agency and leads the team investigating how to launch vehicles into space safely.

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

PAGE VIEWS	SPACE ZONE	MAR '19 ZONES AVERAGE
Total zone	10,734	17,686
ASK page	428	1,348
CHAT page	1,058	1,703
VOTE page	341	979

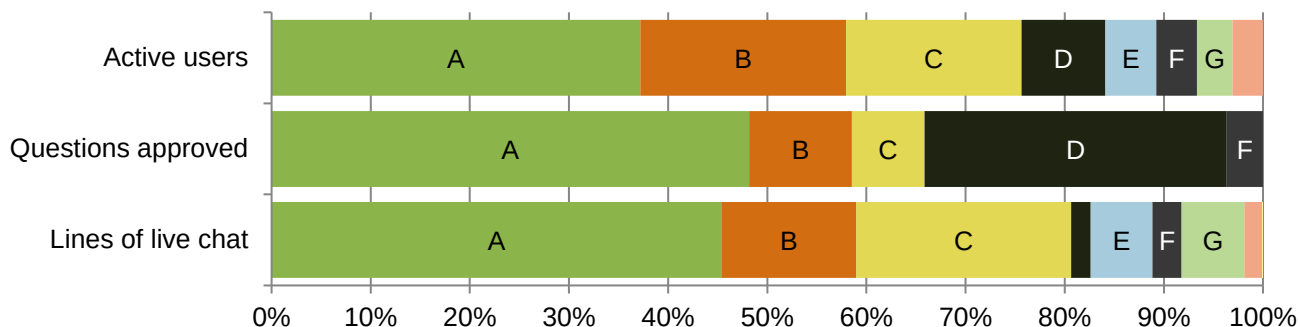
Popular topics

There was lots of space-themed discussion in both ASK and CHAT. Students were particularly interested in knowing about satellites and how they work, and space travel.

A fifth of the questions put to the engineers in ASK were about the engineers' lives outside work, including their hobbies and personal opinions. This helped the students see them as 'people like me' and began to break stereotypes they may hold about engineering.

	SPACE ZONE	MAR '19 ZONES AVERAGE	IAE 2012-19 AVERAGE
Space Zone Schools	8	9	11
Students logged in	448	437	401
% of students active in ASK, CHAT or VOTE	87%	93%	86%
Questions asked	298	592	586
Questions approved	164	239	225
Answers given	341	516	442
Comments	14	31	42
Votes	304	354	299
Live chats	19	19	17
Lines of live chat	7,515	7,185	5,537
Average lines per live chat	396	379	317

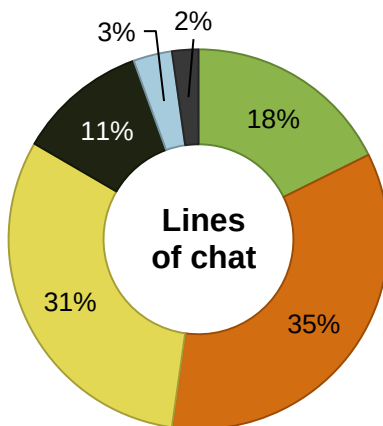
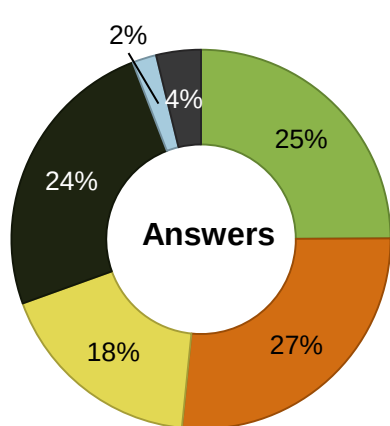
School data at a glance



School	Year/s	Classes
A Torquay Girls Grammar School, Torquay, U	Y9	5
B St Anne's Roman Catholic High School, Stockport, Stockport, WP	Y10	3
C Ormiston Park Academy, Aveley, WP/U	Y10	4
D Weston College, Weston-Super-Mare, U	Y13	2
E Smithycroft Secondary School, Glasgow City, WP	S1	1
F South Wilts Grammar School for Girls, Salisbury, U	Y10	1
G St Mark's CofE Primary School, Manchester	Y5	1
H Colton Hills Community School, Wolverhampton, WP/U	Y11	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 DEIS schools, and how you can support us in working with more of these at about.imascientist.org.uk/under-served-and-wp/

Engineer activity

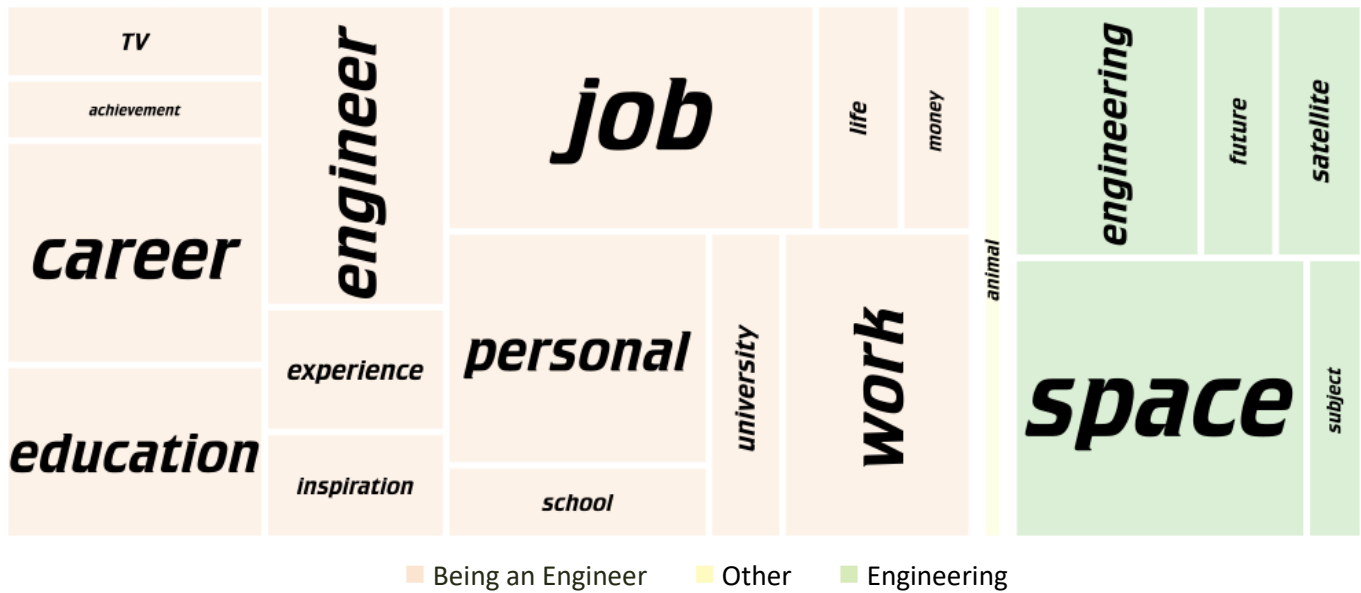


ENGINEER	PROFILE VIEWS	POSITION
Brian Weaver	295	Winner
Rachel Hudson	305	2nd
Christopher Youens	245	3rd
Pam Anderson	226	4th
Vinita Marwaha Madil	350	5th
Andrew Ratcliffe	197	6th

Ask?

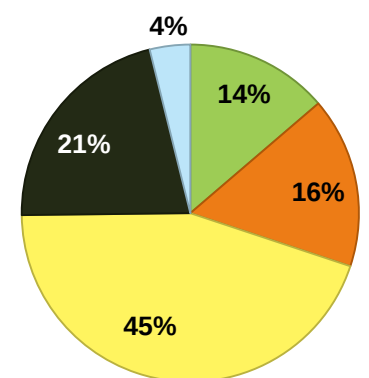
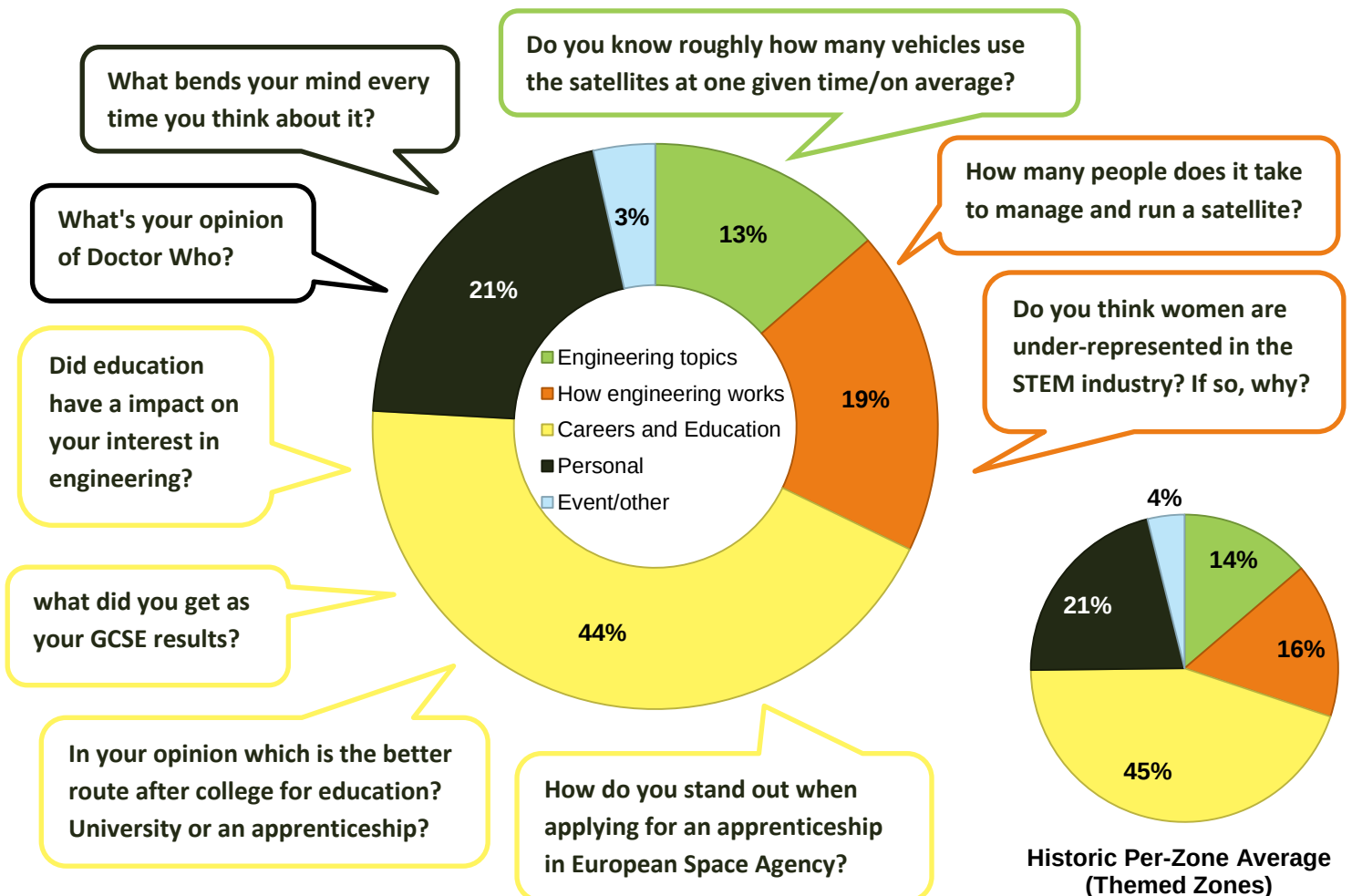
Top Keywords of questions approved in the Zone

Area represents frequency of use



Question themes and example questions in the Zone

Find out about how we've coded the questions at about.imascientist.org.uk/what-do-students-ask-about/





Pam Anderson answered on 4 Mar 2019:



My job usually takes 7/8 hours per day but sometimes I have to do a bit more outside of that time. I also travel a lot for work and that can mean some evenings and weekends are spent travelling. I love my job, so I don't mind doing a bit extra!



Christopher Youens answered on 4 Mar 2019:



My job usually takes about 8 hours a day, and the work/life balance is usually really good. Though I'm occasionally down as the on-call engineer, so during those times I need to be available to support any emergencies day or night. Other than that, if I'm working on fixing a problem with a spacecraft it can usually be a really long day. But I tend to take a bit of time off after to balance out the hours.

Students would also ask about links between engineering and things in their daily lives, such as science fiction books and movies. The resulting conversations were much more engaging for students:

How true are films like gravity to what it's like in real life – Student

Some are more real than others. If we don't start to work on space-debris soon, Gravity the film might be a bit more real! The Martian is obviously not real but movies like Hidden Figures (one of my favourites) is a true story. – Pam, Engineer

Wow that's really interesting. I've personally never watched Hidden Figures – Student

You should watch it! There are some very inspirational women who worked at NASA when they were trying to get to the moon. They did all the hugely complicated calculations with pen and paper! They were human computers :-) – Pam, Engineer

That does sound cool! I will – Student



Engineer winner: Brian Weaver

Brian's plans for the prize money: "I will donate the money to Engineers Without Borders UK (EWB-UK). Locally, the EWB-UK focuses on youth outreach where volunteer Ambassadors teach STEM workshops to students in the UK."

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

Student winner: Lani

Lani from Torquay Girls Grammar School was nominated by the engineers for their “thought experiment” questions in their live chat, and their ASK question of: “as you stated, you are a Space Operations Engineer. My question is: do you ever aspire to go to space or participate/be involved in assisting a mission to space?”

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

Feedback

We’re still collecting feedback from teachers, students and engineers but here are a few of the comments made about March’s *I’m an Engineer* activity...

[I have learnt] there are many different types of engineering and you can make a big difference by doing something you love. you can help people such as aspiring children and people who used to be in the army which is incredible as it is a job many people think does not help others. – **Student**

Students, I really enjoyed your enthusiasm in our live chat sessions! Your questions helped me find new ways to explain my work and taught me something new when I had to search for answers. Your creativity and interest in “why” things work will help you succeed in your education and future careers. – **Brian, Space Zone winner**

it was great to be able to reach out to students from all parts of UK... We 'went' to them... hopefully easier for teachers as they didn't have to come to us – **Engineer**

I've learned that engineering is in quite a lot of jobs and you need science for engineering – **Student**

I have learnt that there are lots of different jobs for engineering and not just fixing engines and getting all dirty by going underneath cars! Also I like the sound of working like an engineer and have heard you earn quite a lot of money! I think it would be fun and I like the sound of Shruti's job! :) :) :) :) – **Student**

It's been great. I've really enjoyed the variety of questions from students. I've been impressed about how much some students have known! – **Shruti, Milligram Zone winner**

You guys have really encouraged me to push forward with my career and to carry on dreaming big! – **Leah, Energy Zone winner**