



October 2021

The Space Zone (spaceo21.imanengineer.org.uk/) ran from 27 September to 22 October and was funded by **The UK Space Agency**.

The Zone featured engineers working in the growing UK space sector.

Throughout October 2021, Covid-19 cases in schools peaked to an all time high. This reduced activity in the Zone overall.

Key figures

	Zone
Schools	9
Students logged in	386
Students active	98%
Engineers	15
Questions asked	66
Questions approved	52
Answers given	67
Engineer comments	8
Student comments	1
Live chats	26
Lines of live chat	5,963
Average lines per live chat	213
Votes cast	172

Engineers

15 engineers created a profile in the Zone.

You can see who took part at <https://spaceo21.imanengineer.org.uk/engineers/>

The winning engineer with the most votes from students was **Harriet Gamble**, Space Systems Engineer at Airbus.

Four engineers participated in our Academy Zone where they could build on their understanding of public engagement practices.

Students

386 students from nine schools across the UK logged into the Zone.

74% of active students were from target schools: 5% from underserved schools and 71% from widening participation schools.

Live chats

26 live chats took place during the activity: 21 were school classes booked by teachers and five were additional chats, open to all the students.

An additional 13 live chats were booked: five were cancelled and in eight the school was unable to attend without cancelling.

There was one live chat where teachers asked questions on behalf of their students. It can also be common for students to share login details or computers during live chats. Therefore, the number of students reached will be higher.

School activity

Students from 9 schools across the UK participated in the Zone. In addition to live chats booked by teachers, there were 4 Thursday evening chats scheduled for the students and their families.

School	WP/U status	Active users	Chats attended	Chat lines (total)	Chat lines (per user)	Questions approved	Votes
Kepier, Houghton le Spring	WP	165	8	1748	11	28	83
Reading Girls' School, Reading	WP	57	2	592	10	13	44
Merton Park Primary School, London	-	53	3	637	12	0	24
Kenmont Primary School, London	WP	43	3	472	11	0	1
Ardrossan Academy, Ardrossan	-	25	1	120	5	9	20
Bexley Grammar School, Welling	-	23	1	158	7	0	0
Mill O'Forest School, Aberdeenshire	U	12	1	227	19	1	0
Wyvern Academy, Darlington	WP/U	8	1	87	11	1	0
St John's CofA Primary School, Swinton*	-	1	1	28	28	0	0

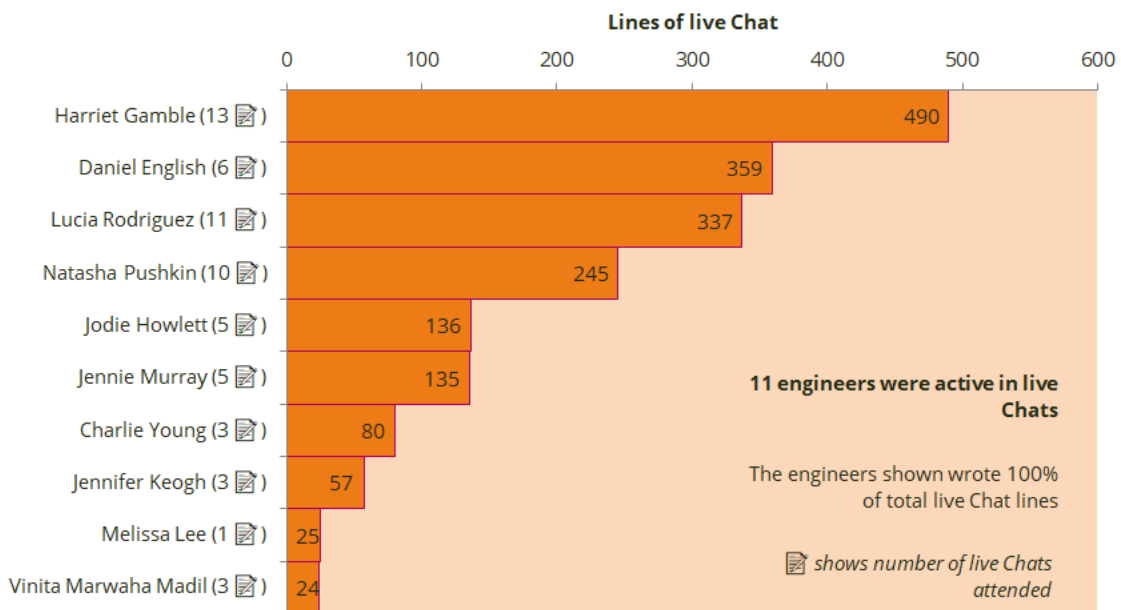
* In these chats teachers typed questions on behalf of their students.

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

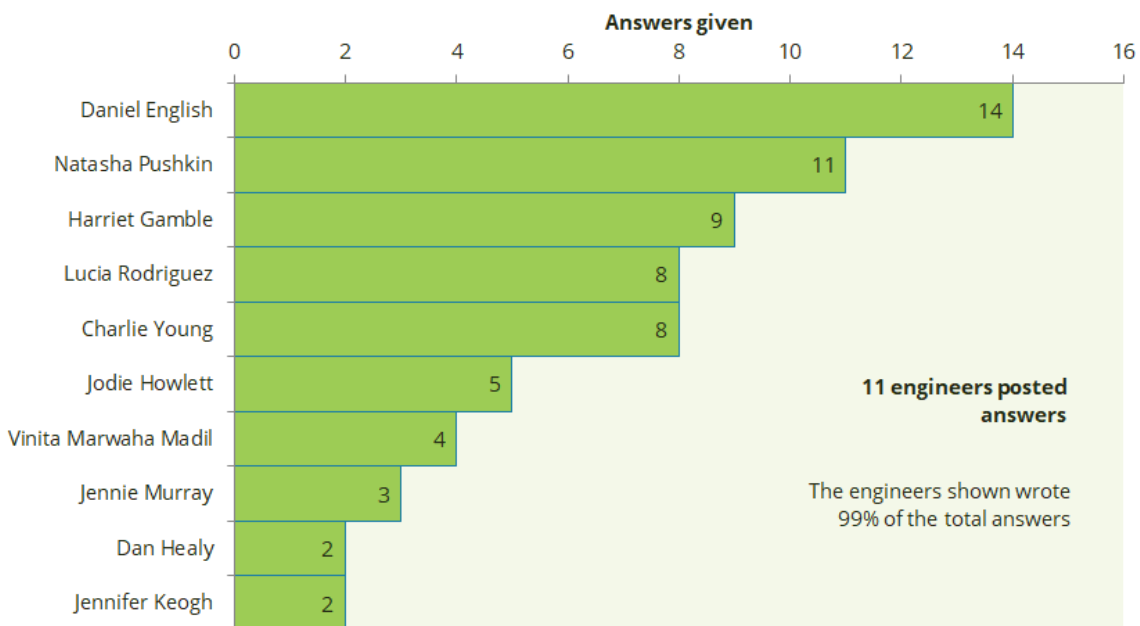
Engineer activity

During the Zone the engineers interacted with students by writing 1,894 lines of live chat, and providing 67 answers to 66 posted questions. On average, 5 engineers attended each live chat.

10 most active engineers in live Chats



10 most active engineers in posting answers



Good engagement

Live chats enable students to connect with engineers over shared interests and ask questions that can build a rapport. Students can understand that the engineers are “regular people” with aspirations and relate to them more easily. This makes it easier for them to see themselves in engineering careers.

Student 1: If you could do one thing in life, what would it be?

Harriet (engineer): *If I could do one thing it would be to go to space. It would be so amazing to look back at earth and experience zero gravity.*

Student 2: If you go into space, where would you go?

Harriet (engineer): *If I could go into space I would love to go to the moon and Mars. Then I think I would fly around as see as much of our solar system as possible, but that would take a very long time!*

Student 2: How long would it take to travel to Mars?

Harriet (engineer): *I think it would take 6-8 month to get to Mars, which is a very long time to spend in a small space capsule especially with other astronauts.*

Student 1: What do you like about space?

Lucia (engineer): *I like the fact that it is the last frontier and there are many “firsts” to accomplish!*

Daniel (engineer): *I like everything about it, the most interesting thing for me is learning about different exoplanets where life might exist because they have similar conditions to earth with weather and temperature*

Student 1: Sounds complicated but cool!

Daniel (engineer): *Thanks! I really find the fact that life could exist on other planets really fascinating!*

Seeing engineering as part of everyday life is an important dimension of Science Capital.

Student 1: Why does this study matter?

Jennifer (engineer): *Engineering matters because everything we use is made by an engineer.*

This student asked a very detailed question on the career requirements of engineers and working in the space sector.

Student 1: How long does it take to pass a space inventor exam?

Jennie (engineer): *There are apprenticeships where you can work for a company and learn at the same time. It's great as you get paid for working and studying. Exams will be through the year and at the end. Alternatively if you study at university it's usually 3 years, with exams at the end of each year.*

Student 2: thank you for answering me and I think what you do is amazing

Jennie(engineer): *Thank you for your brilliant question! Do you have any ideas what you might like to do in the future?*

Student 2: I am thinking of becoming an athlete when I'm older but i am very interested in science

Jennie(engineer): *Both amazing careers! I wish you the very best*

Engineers of the Week

Students voted each week for their favourite engineer to be named Engineer of the Week.

The Engineers of the second and third Week were:



Lucia Rodriguez, Senior Performance Engineer at Reaction Engines



Natasha Pushkin, Propulsion Engineer at Airbus Defence and Space

The engineer of Week one was also the overall winner, with the most votes at the end of the Zone was:

- **Harriet Gamble**, Space Systems Engineer at Airbus

As Zone winner, they receive £500 to spend on further public outreach projects.



"It has been fantastic taking part in the Space Zone over the past few weeks. Thank you so much to all the students who took part and shared their enthusiasm for all things space-related, asked a huge range of amazing questions. And, of course, thank you for voting for me!"

You can read their full statement at

<https://spaceo21.imanengineer.org.uk/2021/11/05/a-thank-you-from-your-winner-harriet-gamble/>



Feedback

"Please pass on my thanks to the team that joined our pupils today. They really enjoyed the session and, with the recent news of progress on a Spaceport locally at Prestwick, I think many of them perhaps could see careers that may have great relevance for them in the years ahead."

Teacher

"Maths is a subject I struggle with but that was probably the best maths lesson I have had"

Student

"I really love doing outreach work and sharing what I've learnt during my career so far in the space industry and how I have got to my current job designing satellite payloads. *I'm an Engineer* has been a brilliant way to do this and get to speak to so many students from all over the country who I couldn't have met otherwise."

Harriet Gamble(Engineer)