

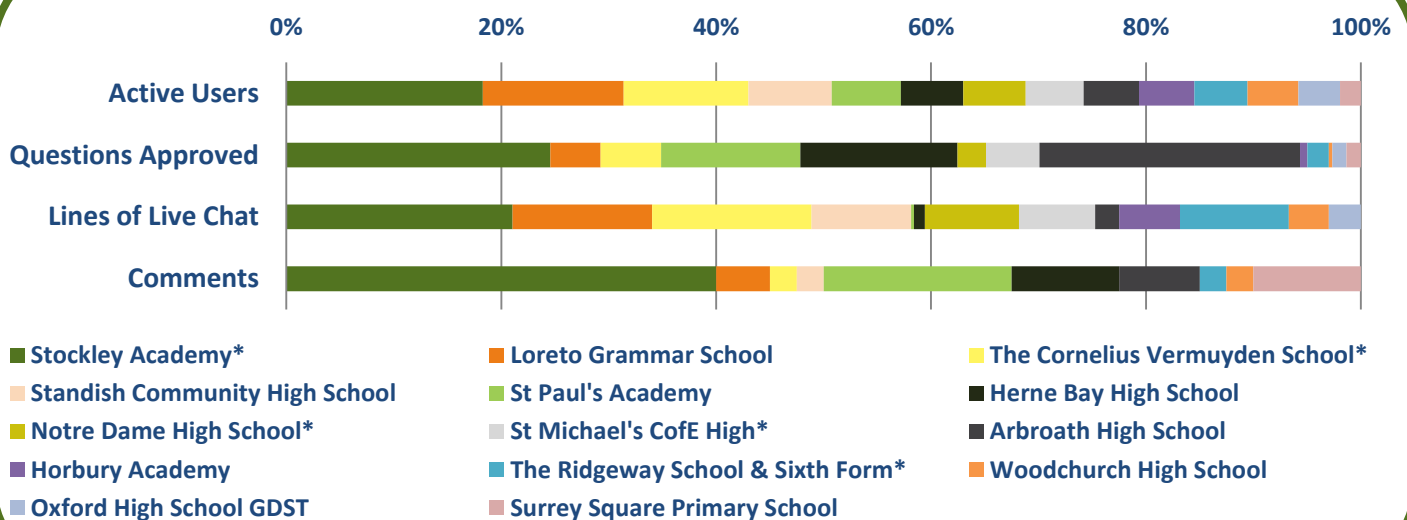


November 2016

This was a themed zone funded by the Royal Academy of Engineering's Ingenious Grant. Sarah works for Rolls-Royce designing parts for aeroplane engines, Masha is a research student working out how to make jet engines use less fuel and Mark simulates Formula 1 and Formula E racing cars to predict the best design for each race. Leon is working to make the oil used in motors more efficient, Dominique develops software for motor control systems and Andrei works for Jaguar Land Rover making sure cars are being built correctly.

This was a busy zone that had a high amount of questions asked by students, with lots of interest in cars, planes and engines. All of the engineers were great at answering questions clearly and informatively with Leon, Mark and Sarah making up a majority of the activity by engineers across the two weeks.

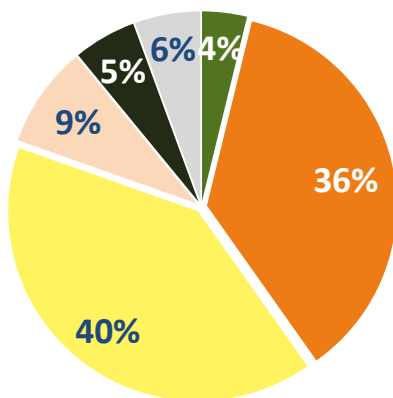
School data at a glance



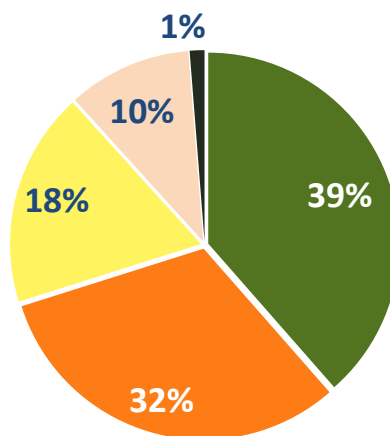
*Widening participation schools, as defined at <http://about.imascientist.org.uk/2016/widening-participation-2016/>

Engineer activity

Answers



Lines of live chat



Engineer	Profile views	Position
Leon Wechie	775	Winner
Mark Catherall	583	2nd
Sarah Hunt	762	3rd
Masha Folk	610	4th
Dominique Anderson	450	5th
Andrei Ilie	430	6th

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

PAGE VIEWS	MOTOR ZONE	NOV '16 ZONES AVERAGE
Total zone	21,822	25,533
ASK page	2,125	2,723
CHAT page	2,553	2,111
VOTE page	1,790	1,912

Popular topics

Cars were an incredibly popular topic in this zone, especially within ASK. With Andrei working for Jaguar and Mark in F1 performance, students were excited to hear about what working in the sports car industry is like. They wanted to know about the different cars they had worked with, how long it takes and how expensive it is to build a car and the types of modifications they have done.

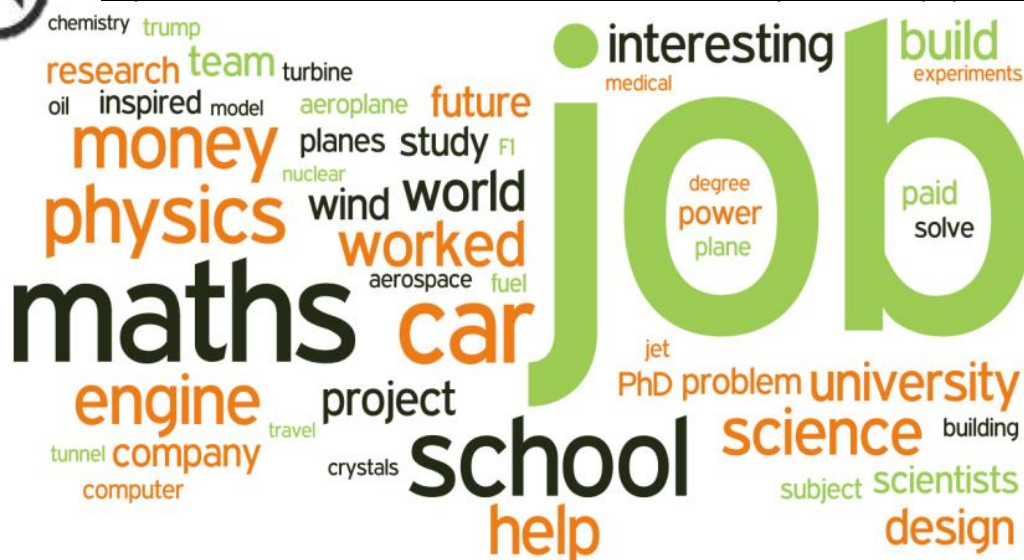
There were questions about planes and jet engines for Sarah and Masha, with students interested in the time it takes to build an engine or finish a project and the strength and capabilities of the engines they have worked with.

Many students wanted to know what it was like being a female in the industry, with some stereotypical questions about whether engineering is a 'man's jobs' and if women get to do the same job as men. There were lots of general questions about grades needed for engineering, as well as which skills are required to do well in their work and how the engineers have used their engineering skills to solve problems in their lives outside of work.

	MOTOR ZONE	NOV '16 ZONES AVERAGE	IAE AVERAGE
Schools	14	13	10
Students logged in	533	481	385
% of students active in ASK, CHAT or VOTE	87%	89%	85%
Questions asked	758	1,082	588
Questions approved	301	379	217
Answers given	393	512	434
Comments	50	77	42
Votes	325	379	294
Live chats	17	18	17
Lines of live chat	5,747	7,265	5,151
Average lines per live chat	451	409	307



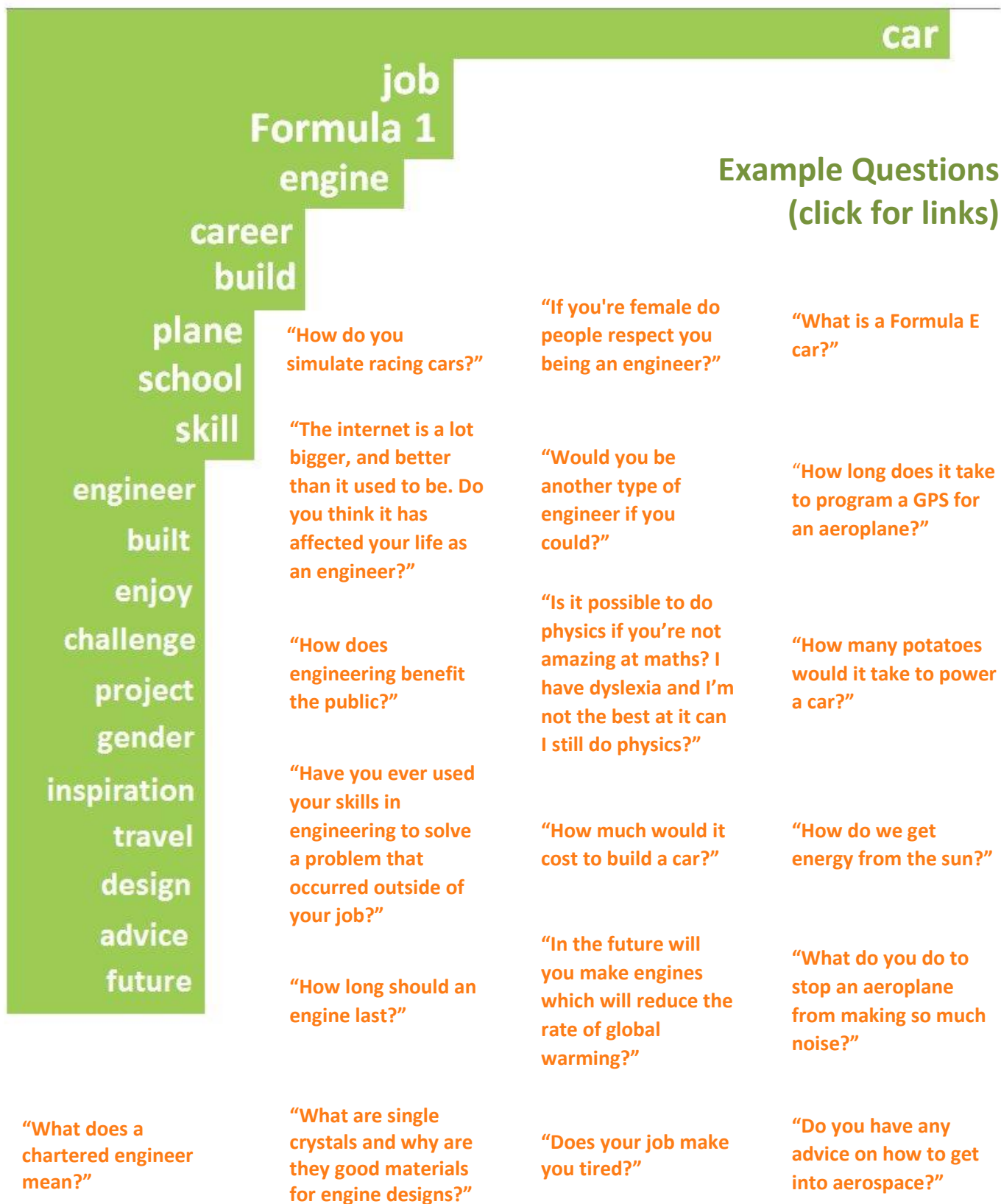
Keywords from live chats in the zone, size of the word represents its popularity





Keywords of questions approved in the zone, length of bar represents frequency of use

0 5 10 15 20



Examples of good engagement

The engineers were great at giving detailed and helpful answers. Students often asked for specific advice in terms of how to get into engineering and which companies are good to work for.

"My brother works at Rolls-Royce too and he says it really good, is there anything I should try to do to become an engineer and maybe get a master's?" – Student

"In terms of engineering, you need to take maths and at least one science subject. To get a job as an engineer with Rolls-Royce you don't necessarily need a master's degree – you can have a bachelor's or even do an apprenticeship. Just to let you know that there's other options 😊 I chose a master's degree because I wanted the experience of going to University, and a university degree gives you more options in the future if you want to change jobs." – Sarah, engineer

Gender in engineering came up a lot, with students interested in how many females worked in the industry. The engineers were all very positive and encouraging towards female students showing an interest.

"How hard is it to find a job in engineering as a woman?" – Student

"I didn't come across any obstacles, engineering companies know that they won't get the best engineers if they only employ men. It makes more commercial (and ethical) sense to be fair for both men and women :)" – Sarah, engineer

"Can we do anything in engineering that we wish to, even though we are girls? not being sexist:)" – Student

"Yes you can! Girls are as welcome as boys here in engineering. Girls actually tend to get top grades most of the time :)" – Leon, engineer

"Are there many female engineers? Or more male?" – Student

"There are more males but females are growing in engineering massively. They get great grades and it's almost equal ratio now." – Leon, engineer

Engineer winner: Leon Wechie

Leon's plans for the prize money: *"I will purchase some apparatus or kit that would assist in allowing young children to partake in Engineering game activities, educating them on what, why, and how an engineer can contribute to society!"* Read Leon's [thank you message](#).



Student winner: 737mtrg47

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 engineers but here are a few of the comments made during the event...

"I have learnt more about what it is like to be an engineer and what engineers are like. It also makes me want to look into engineering a bit more." – Student

"I had a great time talking to young students across the UK about what being an engineer involves! The majority were very receptive, some captivated, and so it's a pleasure knowing that we were able to encourage some of the world's future engineers!" – Leon, engineer