



Valerie



Steve



Sean



Kath



Carmel



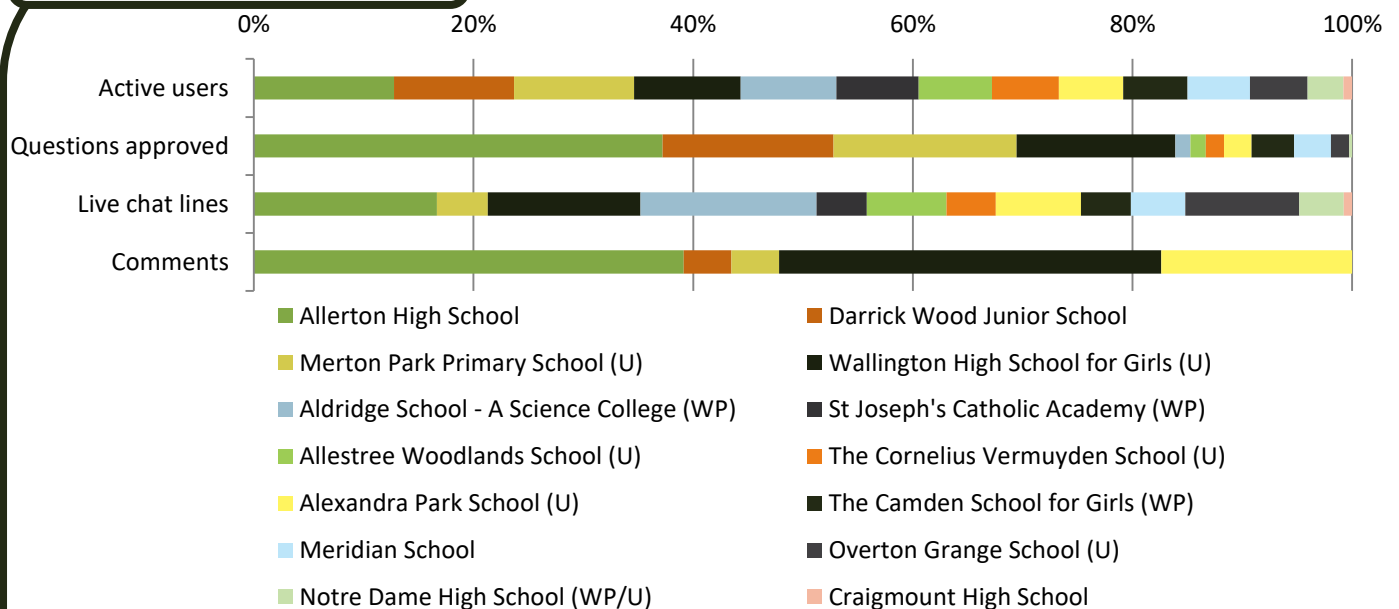
Alex

November 2017

The Health Zone was a themed Zone supported by Wellcome. Valerie is a PhD student in biomechanics studying the onset and development of colorectal cancer, Steve is a mechanical engineer who has developed technology for artificial limbs and Sean, the winner of this Zone, is a PhD student working on a device to help people with spinal cord injuries to control their bladders. Kath is working on a coating for implants that will kill bacteria when put into a patient's body, Carmel is researching new ways to detect brain activity without damaging the brain and Alex is working to better understand how crystals can be used within medicine.

This was the busiest Zone in November's I'm an Engineer event with the highest number of students logging in and number of questions in Ask. All the engineers took an active role across the two weeks of the event and were great at engaging with students. The winner of the Zone, Sean, is a wheelchair user and was asked by students about how this affects his work as an engineer. All the engineers were very positive about their roles and good at encouraging students to take an interest in engineering and benefitted from taking part in the event as engineers, as noted in [this Ask question about how the Live Chats have helped them develop their work](#).

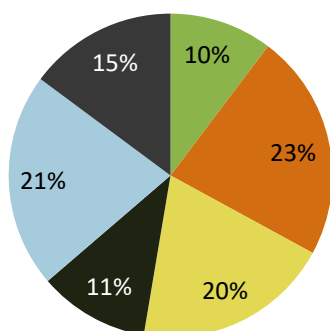
School data at a glance



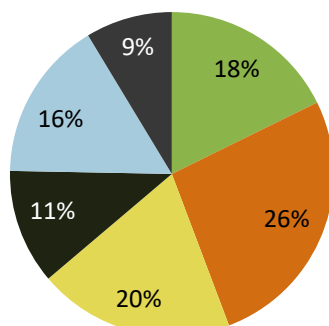
We want to increase the participation of under-represented groups going into STEM careers. Find out what we mean by our under-served (U) and WP schools (WP), and how you can support us in working with more of these at about.imascientist.org.uk/under-served-and-wp/

Engineer activity

Answers



Live chat lines



ENGINEER	PROFILE VIEWS	POSITION
Sean Doherty	1,052	Winner
Valerie Bentivegna	1,166	2nd
Carmel Howe	927	3rd
Alex Moldovan	904	4th
Kath Thomas	767	5th
Stephen Lang	968	6th

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

PAGE VIEWS	HEALTH ZONE	NOV '17 ZONES AVERAGE
Total zone	27,831	22,589
ASK page	2,333	1,788
CHAT page	2,811	2,543
VOTE page	2,160	1,989

	HEALTH ZONE	NOV '17 ZONES AVERAGE	IAE 2012-17 AVERAGE
Schools	14	14	11
Students logged in	562	499	407
% of students active in ASK, CHAT or VOTE	88%	89%	85%
Questions asked	890	673	612
Questions approved	360	264	228
Answers given	923	525	457
Comments	40	47	45
Votes	425	395	305
Live chats	19	20	17
Lines of live chat	8,246	7,063	5,476
Average lines per live chat	434	351	316

Popular topics

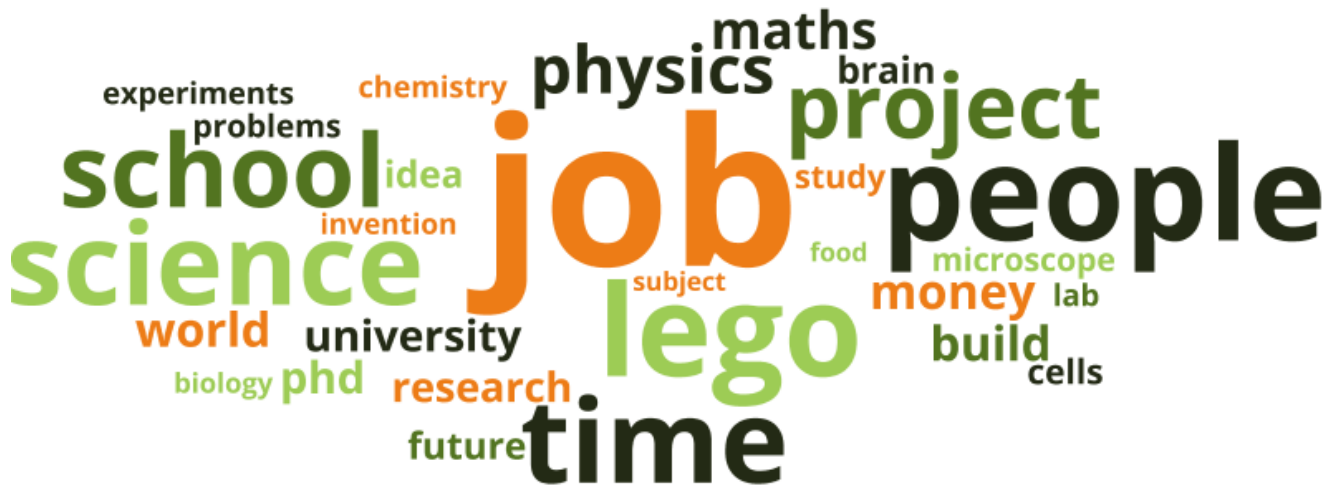
Questions about careers and being an engineer were very popular within this Zone. Students asked for advice on becoming an engineer, about which University courses were best and whether you need to be good at maths or science. Students often talked about their personal interests, for example cars or textiles, and asked the engineers for advice on how they could pursue a career in STEM incorporating their hobbies, contributing to their Science Capital.

Valerie received lots of questions about Lego and how she is able to use it within her work. The use of Lego really captured students' imaginations and they were able to relate to her work through this. Kath was asked about the coating she uses to kill bacteria; what it's made from, how it works and what type of people might need to use it.

The female engineers were asked about what it's like to be a woman in engineering and students really appreciated their honest responses, as in this Ask question **'What is it like being a woman in the engineering industry? Because the number of female engineers is significantly low compared to men at the moment.'**

Chat

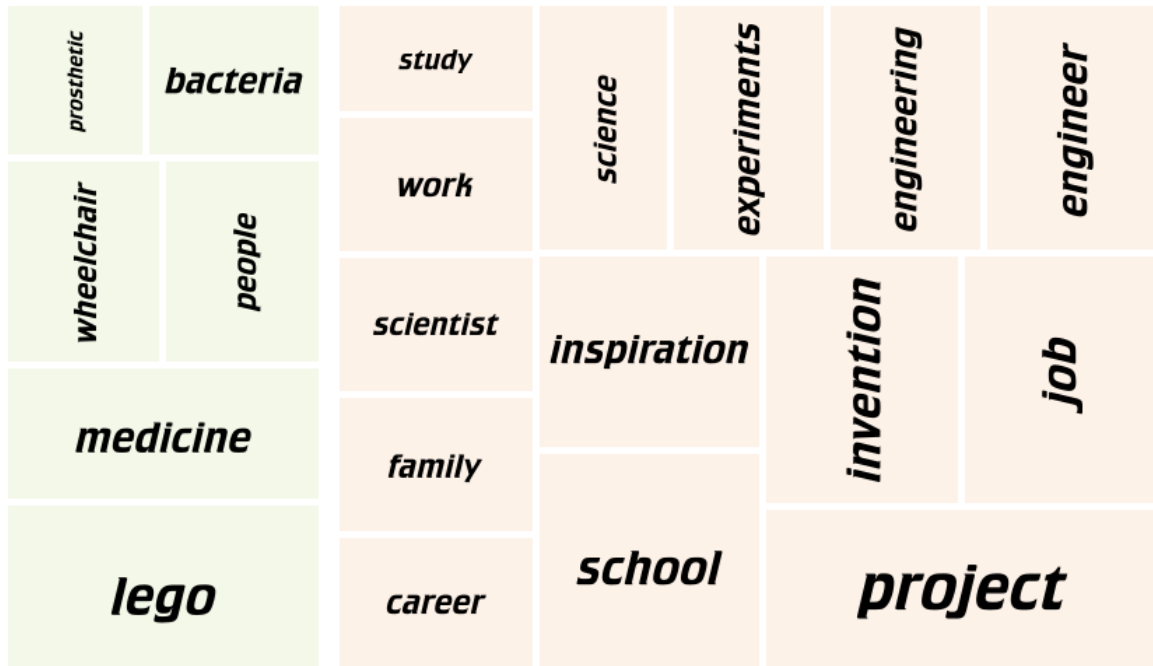
Keywords from live chats in the zone, size of the word represents its popularity



Ask ?

Top Keywords of questions approved in the Zone

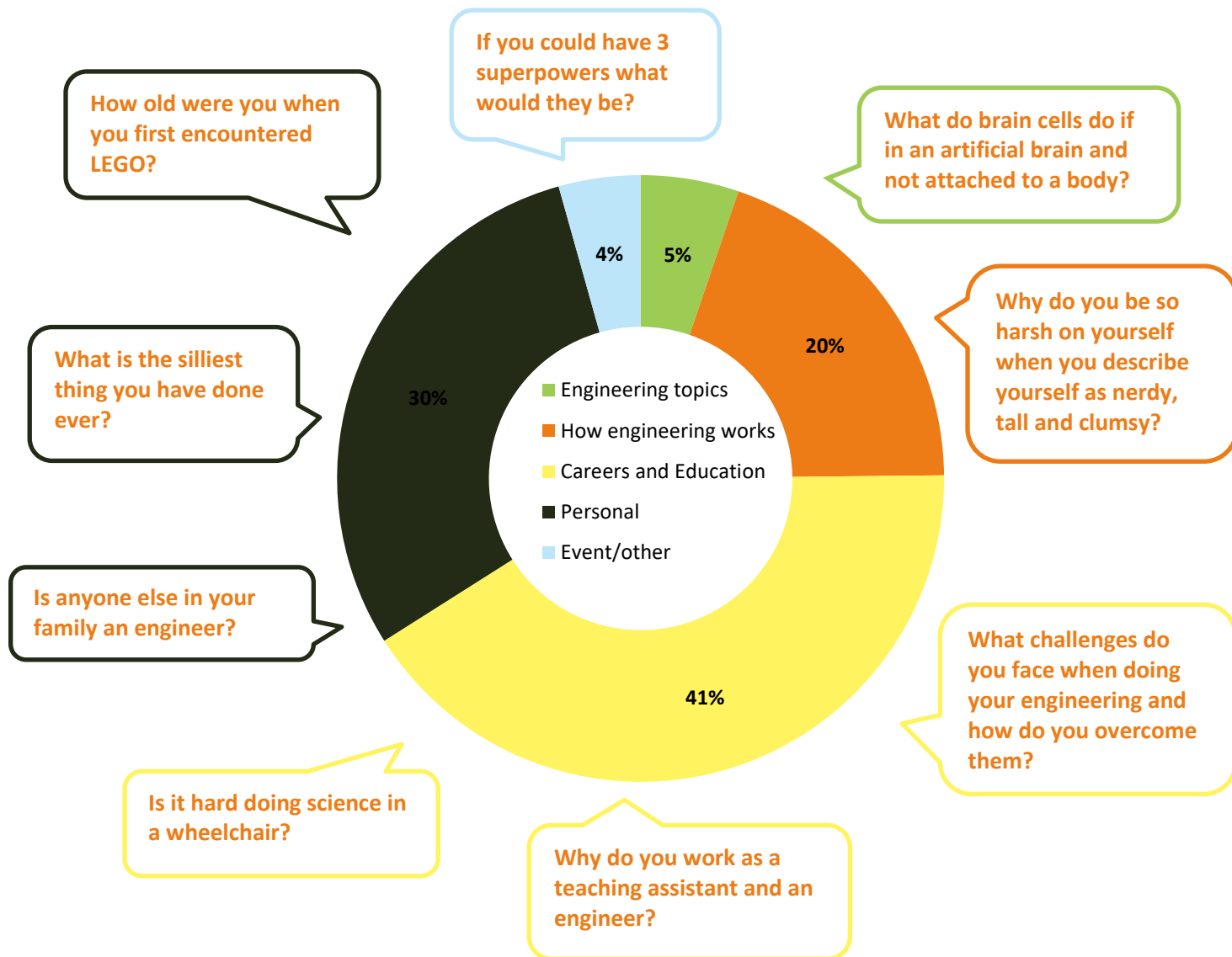
Area represents frequency of use



■ Being an engineer ■ Engineering

Question themes and example questions in the Zone

Click for links



Find out about how we've coded the questions at about.imascientist.org.uk/2017/student-question-coding

Examples of good engagement

The winning engineer, Sean, is a wheelchair user, and received lots of questions from students about how this affects his life as an engineer:

"@Sean could you tell us about this project that you require funds for." – Student

"I want to build some interactive demo kits to show how engineers can help people with disabilities. For example how they can design a wheelchair, I'd use these when our lab talk to schools." – Sean, engineer

"I think this is very beneficial so then do engineers have a lot of influence on product and designing the realm of disability" – Student

"Yes! All of the products that help people with disabilities are made by engineers." – Sean, engineer

“I think this is very good if it is not too personal may I ask why you are so passionate to help the disabled if you are so?” – Student

“No problem, I broke my neck when I was 16 and use a wheelchair now. When I was in hospital I saw how much engineers can do to help people” – Sean, engineer

“I think it’s truly inspirational that you have not let something as such that has happen to you and effected your life stop you from helping others and reaching your goal” – Student

“Cheers. You should consider engineering too!” – Sean, engineer

Lots of students were interested in engineering as a career path, and all of the engineers were full of encouragement and information about the variety of areas in STEM:

“Hi, I’m really interested in combining textiles with STEM.” – Student

“Hi, this is great. We use lots of wearable tech type projects and there is lots of work in the future for engineers who are interested in textiles and engineering! Combining this with medical science would be great.” – Sean, engineer

“There’s definitely ways to do that! I know some people who are creating cool new textiles that are waterproof or can breathe. I’m sure more combinations are possible!” – Valerie, engineer

Scientist winner: Sean Doherty

Sean’s plans for the prize money: *“I will use to money to buy equipment to build a kit our lab can use for school teaching to show the kind of work we do. This will include a ‘design a wheelchair’ and a ‘measuring the nervous system’ component. I will make the kit with work experience students who spend time in our lab”* Read Sean’s [thank you message](#).



Student winner: Aurora

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...

“The chats were really amazing to do. It was a bit of an adrenaline rush sometimes, maybe that’s part of why they were so fun. And it was amazing to hear all the different types of questions the students had.” – Valerie, engineer

“I have learnt that engineering is not all that boring and engineering can be fun whilst helping people. I also learnt that engineering is not what I thought it was because it can be linked to so many different things.” – Student