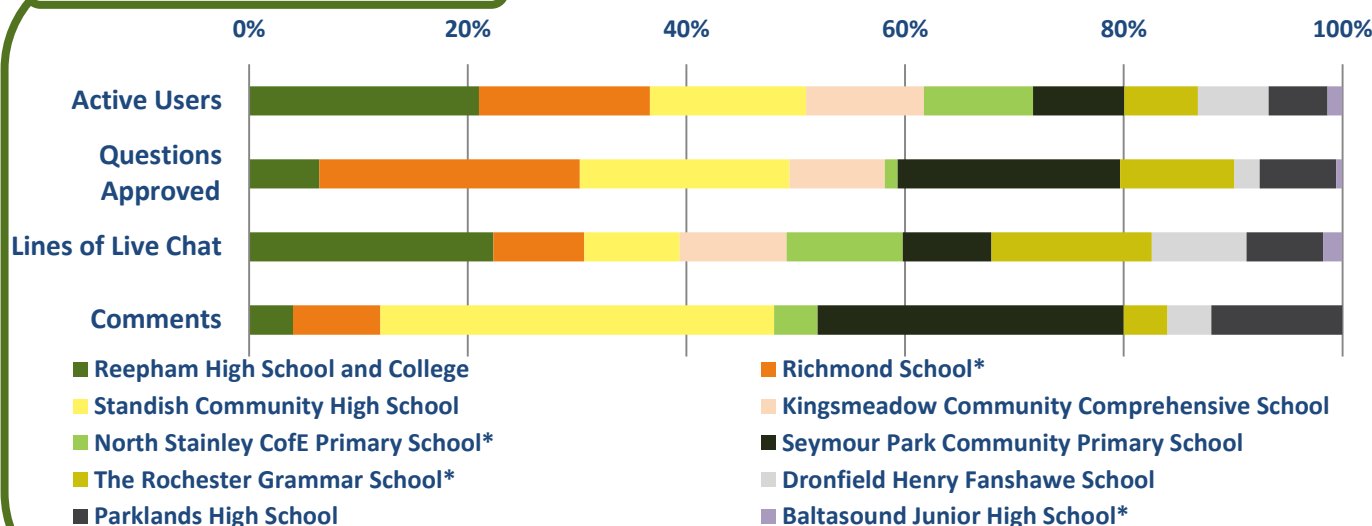


June 2016

This was a themed zone funded by the Royal Academy of Engineering's Ingenious Grant. Stephen researches how to build supermarkets from more environmentally friendly materials, Natalie is a PhD student researching the behaviour of the ground when high speed trains pass over it in order to make sure trains can run at a high speed safely and Mark is a Senior Project Manager a company currently working on installing solar panels as the road surface. Jeni is a PhD student researching sustainable hydrogen production and Ashwanth works on a subsea construction boat in the North Sea extracting fuel from below the seabed. The zone was fairly active, and the engineers were all good at engaging with students through ASK and the live chats. The engineers each attended a good number of live chats, and continued to take part even if they had already been evicted which was appreciated by the students.

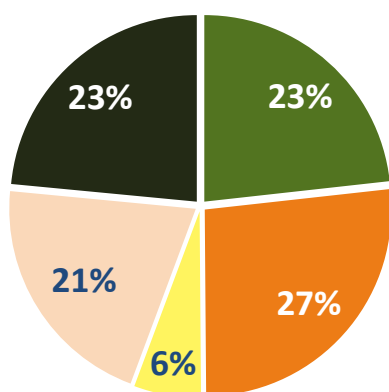
School data at a glance



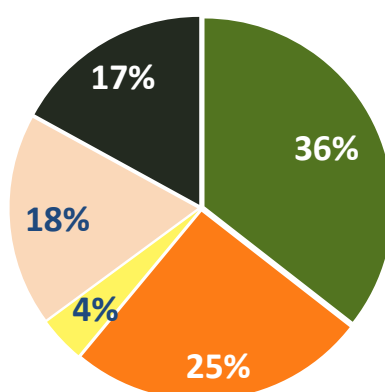
* Widening participation schools, as defined at <http://about.imascientist.org.uk/2016/widening-participation-2016>

Engineer activity

Answers



Lines of live chat



Engineer	Profile views	Position
Mark Gowan	754	Winner
Natalie Wride	888	2nd
Ashwanth Vijay	681	3rd
Jeni Spragg	740	4th
Stephen Richardson	742	5th

Key figures from the Environment Zone and the averages of the June zones

PAGE VIEWS	ENVIRONMENT ZONE	JUNE '16 AVERAGE
Total zone	20,306	19,051
ASK page	1,120	1,397
CHAT page	3,147	2,696
VOTE page	1,423	1,146

Popular topics

Much of the discussions in ASK and the live chats centered around engineering as a career, the different types of jobs and research that was available and the sorts of projects the engineers had worked on. Many students talked about how they saw engineers as problem solvers, and wanted to know about the different challenges the engineers had had to find solutions for within their work.

Students were interested in global warming and had good questions about renewable energy sources. They engaged with the engineers as individuals and asked about their specific research areas, particularly Natalie, who received many questions about how she calculates vibrations from trains, how they can affect nearby wildlife and in what ways trains could change in the future.

Off topic, students asked about hobbies, sport, movies and music. There were questions about the TV show the Big Bang Theory, with students asking if the engineers were like 'smart engineer' Howard from the programme.

	ENVIRONMENT ZONE	JUNE '16 ZONES AVERAGE	IAE AVERAGE
Schools	10	10	10
Students logged in	431	416	374
% of students active in ASK, CHAT or VOTE	86%	84%	85%
Questions asked	423	554	533
Questions approved	172	220	199
Answers given	413	424	425
Comments	39	45	39
Votes	322	285	285
Live chats	19	19	17
Lines of live chat	5,683	4,909	4,916
Average lines per live chat	299	263	295



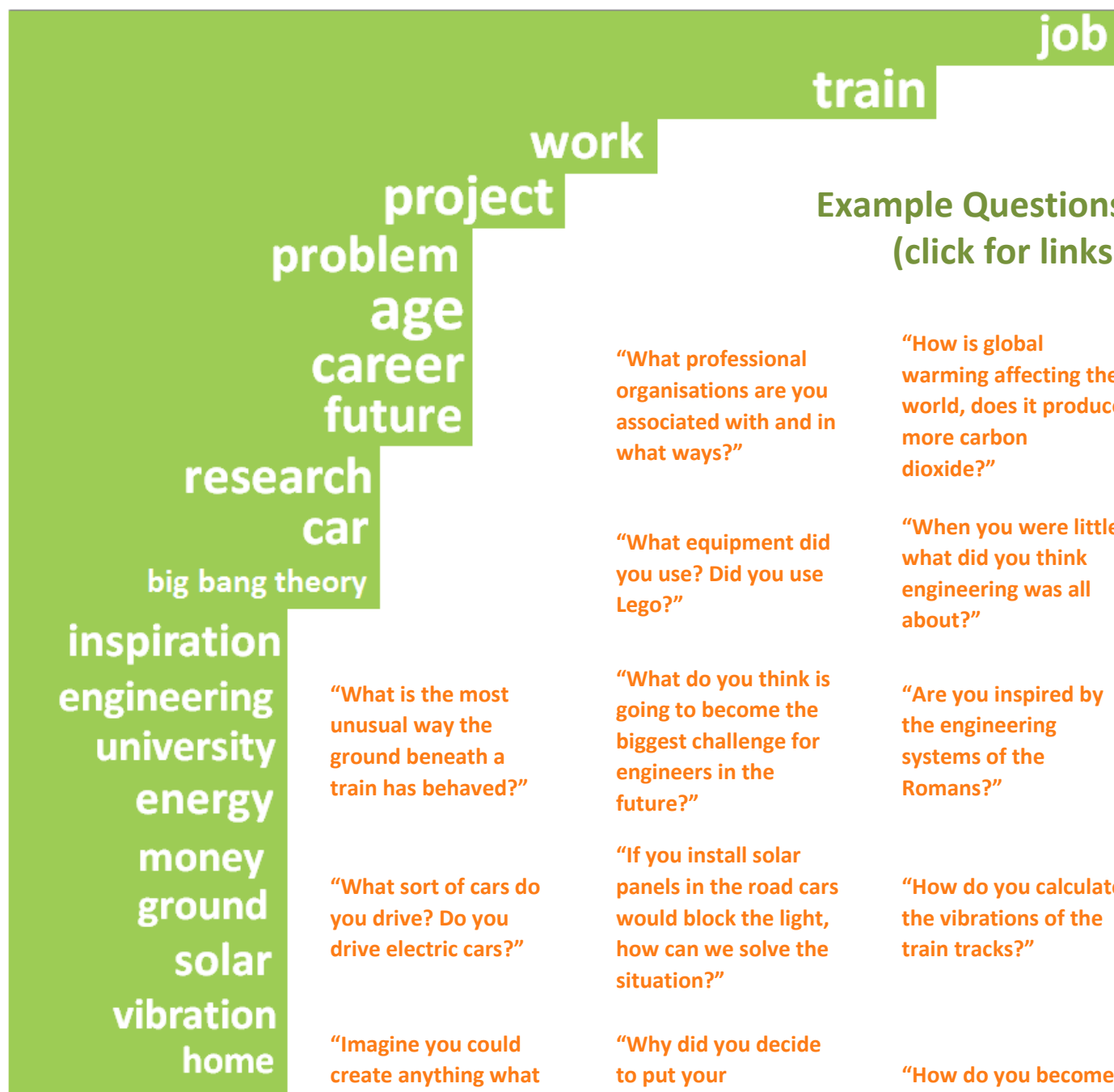
Keywords from live chats in the zone, size of the word represents its popularity





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

0 2 4 6 8 10 12



Example Questions (click for links)

“What professional organisations are you associated with and in what ways?”

“How is global warming affecting the world, does it produce more carbon dioxide?”

“What equipment did you use? Did you use Lego?”

“When you were little what did you think engineering was all about?”

“What is the most unusual way the ground beneath a train has behaved?”

“What do you think is going to become the biggest challenge for engineers in the future?”

“Are you inspired by the engineering systems of the Romans?”

“What sort of cars do you drive? Do you drive electric cars?”

“If you install solar panels in the road cars would block the light, how can we solve the situation?”

“How do you calculate the vibrations of the train tracks?”

“Imagine you could create anything what would it be and what would it do?”

“Why did you decide to put your engineering skills to use at sea?”

“How do you become an engineer?”

“If building from an environmentally friendly material how much difference can it make to your work?”

“Would you like your children to also be engineers?”

“What was further maths like at A Level? Because I am considering doing it.”

“How do you extract fuel from the seabed?”

Examples of good engagement

In a live chat, Natalie talked about how she uses lots of post-it notes, which prompted a student to ask more about it in ASK. Natalie was good at engaging with the students through her answers, asking them questions and finding common ground. There was an exchange between her and two students in the comments section:

“What do you write on your post-it notes?” – Student

“Lots of different things – I’m a list-making person! Some have to-do lists on, some have deadlines I’ve got to meet or targets I’ve set myself of what work I want to complete by a certain date, some have reminders of what certain words mean and some just have lists of papers or books that I need to look at at some point! There’s two that are attached just below my laptop screen so I can always see them! One is the deadline I’ve set myself to complete my PhD by which is December 2018. (It seems like ages away!!) The other is my favourite quote which motivates and inspires me – it’s by Roald Dahl and says “If you have good thoughts, they will shine out of your face like sunbeams and you will always look lovely” Do you have a favourite quote?” – Natalie, engineer

“My favourite quote is, ‘Don’t judge my story by the chapter you walked into’. Or ‘F.E.A.R, face everything and rise’. P.S I hope to study art as well, I love it!” – Student

*“Those are great quotes! I really enjoy art – I find it so relaxing and it’s a great way to chill.”
– Natalie, engineer*

“I like making my own story and I do like drawing because if I am stressed I do drawings to calm me down and I voted for you Natalie” – Student

Engineer winner: Mark Gowan

Mark’s plans for the prize money: *“I would use the money to bring together existing digital media companies and local student ICE branches to set up a monthly digital news feed which informs 10 to 16 year olds of the really exciting construction projects which are going on around them. It would include technical challenges to be solved and a meet the engineer section.”* Read Mark’s [thank you message](#).



Student winner: GCII

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...



Stephen Richardson
@SRich_MEng



@IAEGMOOH Wow! Already so many questions being asked! I can feel the competition hotting up! #IAEUK

“This was better than some of the face-to-face events I’ve done, as it removes any shyness from both students and engineers and allows for meaningful dialogue” – Engineer