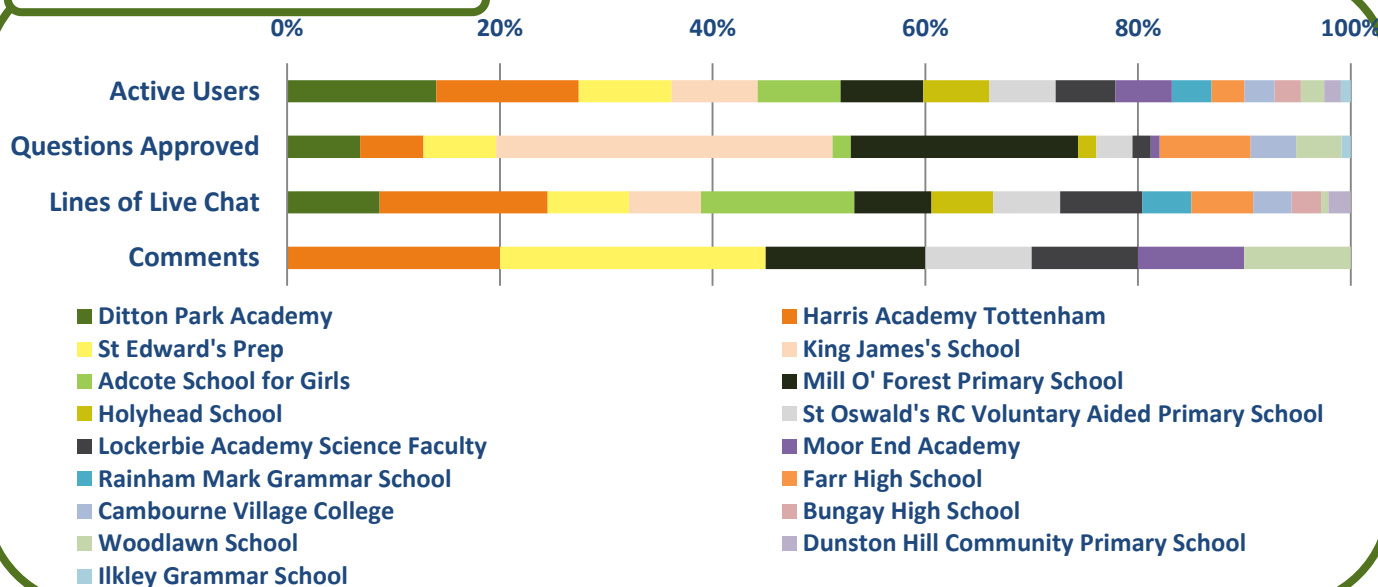


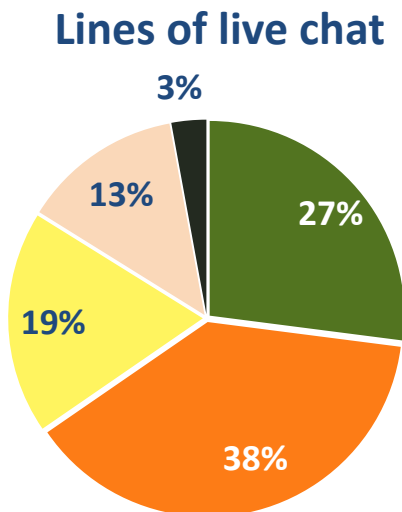
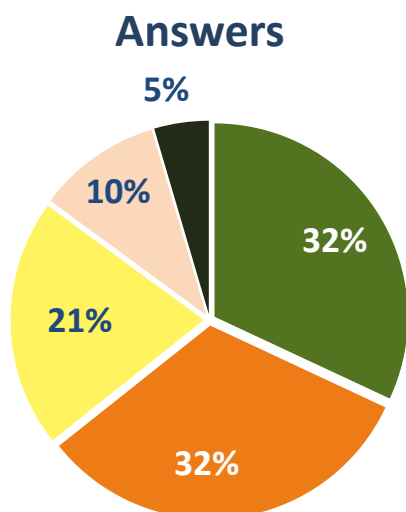
November 2015

This zone was funded by the Institution of Engineering and Technology and the Institution of Mechanical Engineers. The engineers involved all worked in an area related to energy. For example, Stevie maintained the electrical systems of an experimental fusion reactor, Dona researched new materials for improving energy storage in supercapacitors and Liena worked for the National Grid. Both questions in ASK and discussions in live chat were focused on the topic of energy, especially on its future, and the specific work of the engineers. Seventeen schools took part, which is the most of any *I'm an Engineer* zone so far. The engineers who attended the most live chats Andrew (11) and Stevie (13) got the furthest in the zone.

School data at a glance



Engineer activity



Engineer	Profile views	Position
Steven Wray	774	Winner
Andrew Allan	562	2nd
Dona Galhena	363	3rd
Liena Vilde	371	4th
Sandra Fayemiwo*	308	5th

*withdrew early

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

PAGE VIEWS	ENERGY ZONE	NOV '15 AVERAGE
Total zone	14,935	16,066
ASK page	1,025	1,169
CHAT page	2,136	2,390
VOTE page	1,233	1,298

Popular topics

Questions in the zone generally focused on the theme of energy. The majority of questions were about specifics of the different engineers' jobs, showing that the students were reading their profiles.

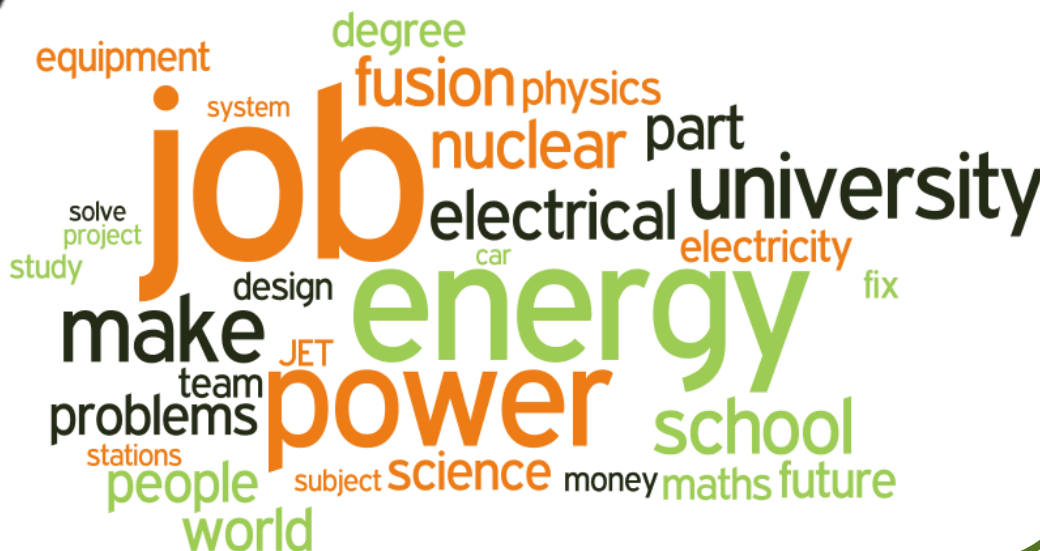
In particular students often asked Stevie about the JET fusion reactor, Andrew was asked about renewable energy, Dona answered questions on how her research will change charging devices, and Liena talked about power stations and the grid. There were also many questions relating to the future of humanity, energy supply, and potential energy sources. Other areas of interest included solar powered cars and better ways to improve them, and the uses and safety of nuclear power. All engineers were asked about the positives aspects and challenges of their careers.

Students were also interested the personal lives of the engineers, asking about their childhoods, their education and their likes and dislikes.

	ENERGY ZONE	NOV '15 ZONES AVERAGE	IAE AVERAGE
Schools	17	16	10
Students logged in	385	378	359
% of students active in ASK, CHAT or VOTE	84%	90%	84%
Questions asked	497	647	528
Questions approved	117	161	193
Answers given	241	312	426
Comments	23	14	39
Votes	293	310	280
Live chats	19	18	16
Lines of live chat	4,198	4,936	4,899
Average lines per live chat	220	287	305



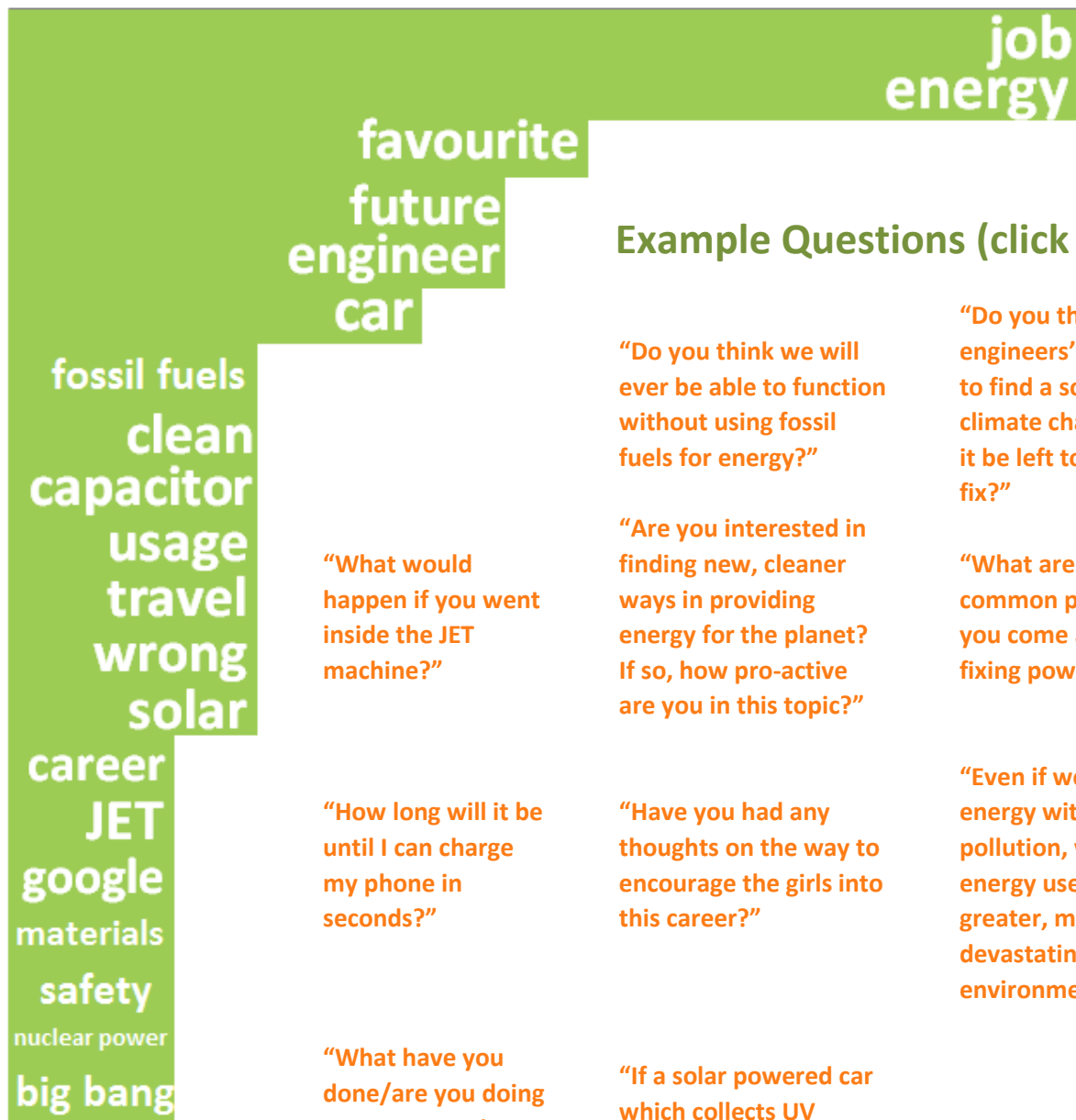
Keywords from live chats in the zone, size of the word represents its popularity





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

0 1 2 3 4 5 6 7 8 9 10 11 12 13



Example Questions (click for links)

"Do you think we will ever be able to function without using fossil fuels for energy?"

"Are you interested in finding new, cleaner ways in providing energy for the planet? If so, how pro-active are you in this topic?"

"Have you had any thoughts on the way to encourage the girls into this career?"

"If a solar powered car which collects UV radiation and IR radiation as well was sunlight and it worked, what would the advantages and disadvantages of it?"

"Can you use NUCLEAR MATERIAL to make non war things like cars, energy, to make the world better?"

"Do you think it is engineers' responsibility to find a solution to climate change or should it be left to scientists to fix?"

"What are the most common problems that you come across when fixing power stations?"

"Even if we produce energy with minimal pollution, won't more energy use incur a greater, more devastating environmental impact?"

"Is there a way to save to environment by making a solar powered car, so less pollution."

"If you witnessed the big bang then how would you explain it?"

"What really inspires you to keep on pushing for your goals when things get difficult?"

"What is the scientific theory of what we will do and feel after death?"

"What would happen if you went inside the JET machine?"

"How long will it be until I can charge my phone in seconds?"

"What have you done/are you doing to overcome the supercapacitors' low energy density, and what effect might this have on the end performance?"

"What do you think of developments in nuclear fusion energy- is this a clean safe option for the future?"

Examples of good engagement

When the students brought up topical issues, the engineers were able to talk about their personal views openly. For example, Liena and Dona were honest when asked about their experiences and opinions of being female in a male dominated industry:

"Why do you think the stereotype of women not being able to do engineering, has come about?" – **Student**

"I think it's because women were denied education for long periods in the history, so it was always dominated by men that considered us to be the weaker gender only interested in poetry, music and daydreaming!" – **Liena, engineer**

"Do you think there is an underrepresentation in of women in the STEM field?" – **Student**

"Yes I do think so, if I take my department, it is 80% Men!" – **Dona, engineer**

"I think there is - I was the only woman when I joined my current team 2.5 years ago, but now it's 50/50 so it's improving." – **Liena, engineer**

Engineer winner: Stevie Wray

Steve's plans for the prize money: *"As I am already going out to schools for outreach I feel the best use of this money would be equipment for outreach clubs and the creative computing club being developed by Science Oxford looks great. It gives children aged 11-16 the opportunity to experience what technology can do. They focus on the use of Arduino microcontrollers which allow you to write code to interact with the real world".*



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

Student winner: OttilieHS

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 really enjoy this chat, I find it very interlectuall" – **Chrissy_19, student**

"Thanks a lot for all of your help and answering my questions! This has helped me a lot for school GCSE option choices!" – **Hannah, student**

"It was great fun and bit tense getting into work in the morning and finding a new pile of questions, knowing my answers could win or lose me votes!"

– **Stevie, engineer**