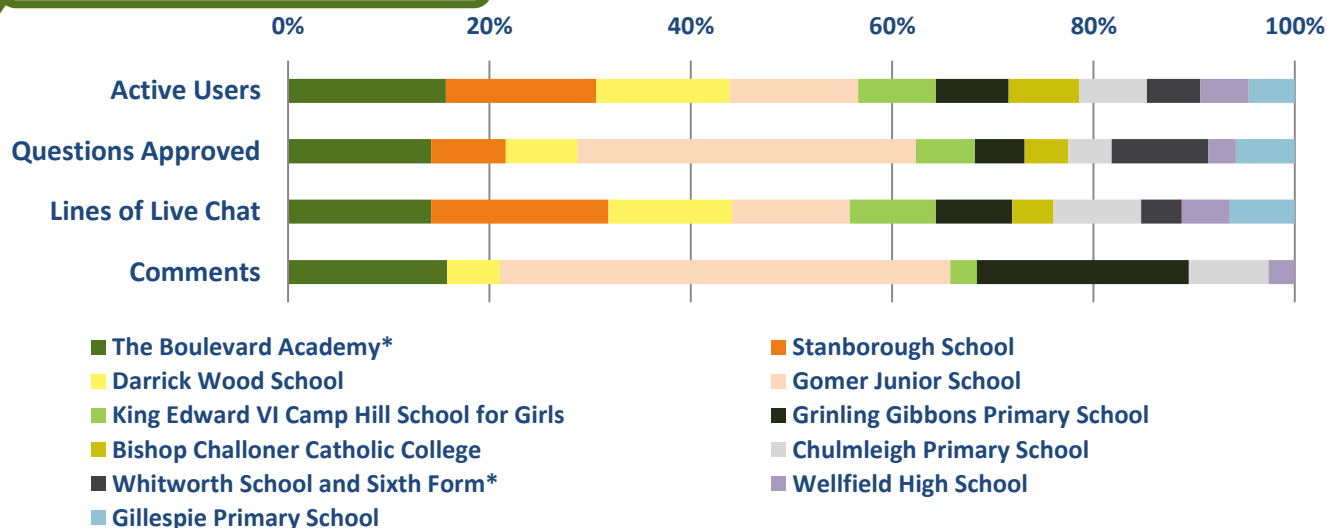


November 2016

The Diagnosis Zone was a themed zone funded by Wellcome, featuring six engineers using and developing technologies to better analyse bodies and diagnose disease. Vaanu works in biomedical engineering analysing images of organs to identify diseases, Tomas designs high precision equipment for biological research and Sylvain designs medical devices for doctors to use to diagnose and cure health problems. Sarah is a PhD student trying to 3D print microchips that can analyse cells, James (the winner of this zone) designs wearable robotics to help us see how brain disease can affect people and Dawn is a PhD student who squashes cells to find out more about cancer.

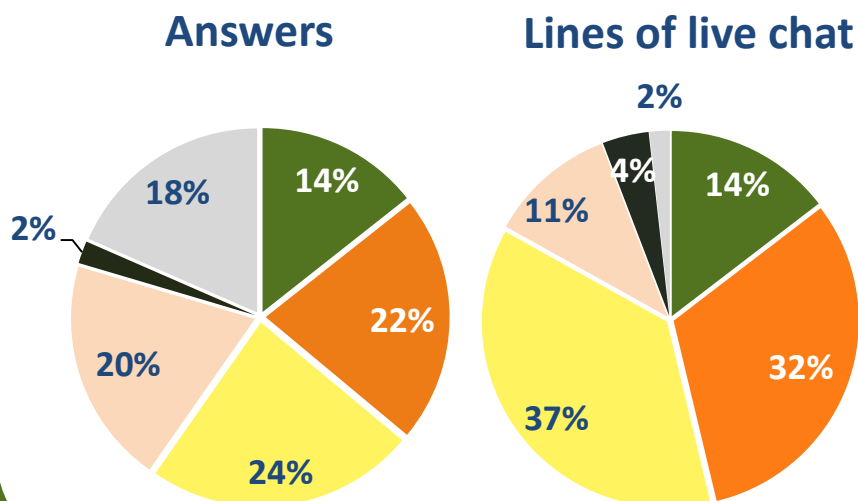
The zone's ASK section was particularly busy with lots of interesting questions from students who had a good understanding of the theme, and the engineers provided in-depth answers about their research and other topics.

School data at a glance



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

Engineer activity



Engineer	Profile views	Position
James Clarke	956	Winner
Sarah Hampson	762	2nd
Dawn Gillies	818	3rd
Sylvain Jamais	549	4th
Tomas Parrado	652	5th
Vaanu Sundaresan	653	6th

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

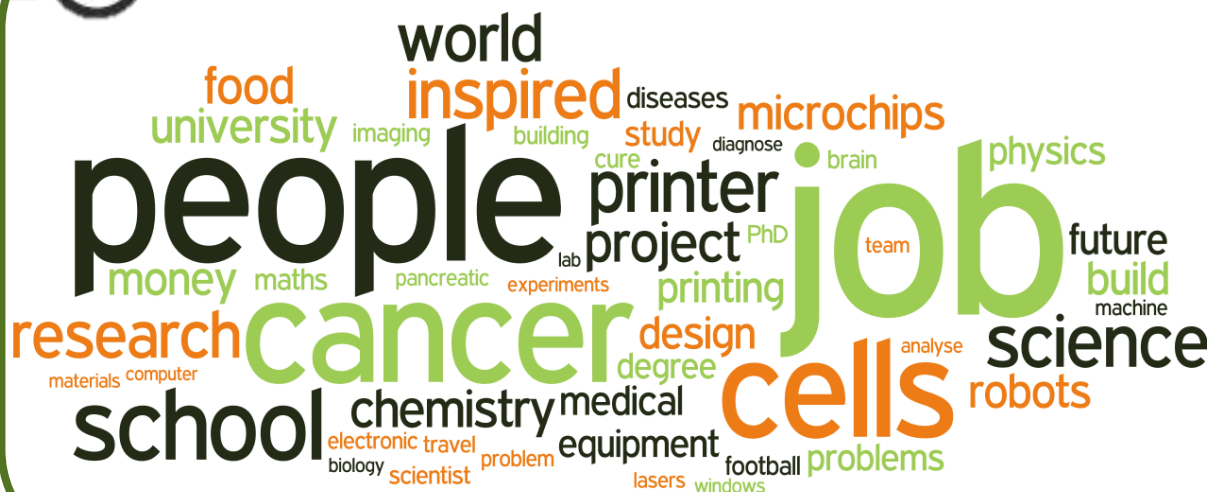
PAGE VIEWS	DIAGNOSIS ZONE	NOV '16 ZONES AVERAGE
Total zone	23,426	25,533
ASK page	2,005	2,723
CHAT page	1,983	2,111
VOTE page	1,791	1,912

Popular topics

Students were very interested in the tools and equipment used by the engineers. There were lots of questions about the capabilities of 3D printing and how Sarah uses printers within her work. Students were also excited by Sarah's prize money idea – to donate printers to schools – and asked her for more information on why she thinks this would benefit students.

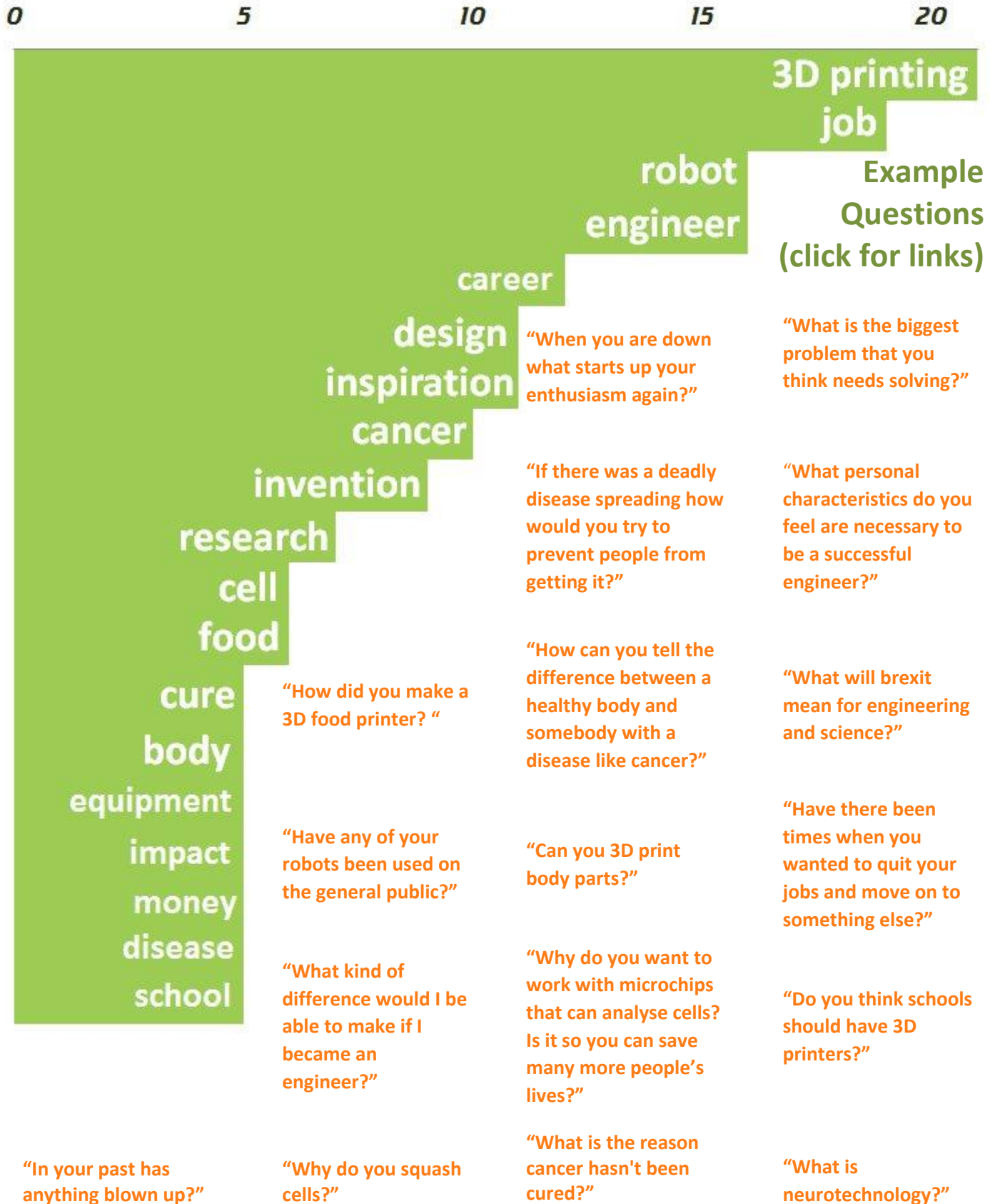
Similarly, students questioned James on his prize money idea and his work with robotics. They asked about the different types of robots he had made, how long they take to make and how much it costs. Cancer was also a popular subject with many questions aimed at Dawn because of her research with cancer cells, with students interested in how she ‘squashes’ the cells and what she finds out from doing this. A lot of the questions were more general, asking how close we are to a cure and how cancer takes control of the body, for example.

Students asked all of the engineers some thoughtful questions about how their work benefits society, and what they hoped to be able to work on in the future.





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



Examples of good engagement

There was lots of interest in the engineer's jobs, and Dawn was great at explaining aspects of her work to students in an engaging way.

"Have you ever worked with dangerous cells/materials?" – Student

"I'm more dangerous to them than they are to me - they would be dangerous in the human body but they are in a dish in the lab so I have to keep them alive! I worked with an 80Amp circuit once - that's enough to kill someone so a bit scary! And one of the lasers I work with could blind me if I didn't wear goggles." – Dawn, engineer

"AAAH sounds scary! Wow! You must really love your job to be doing those kind of experiments!" – Student

Students became excited about the competitive aspect of the event, making chats lively and fun.

"James you're our favourite so far so how are you going to keep it that way?" – Student

"You tell me. What do you want to know?" – James, engineer

"We want to know what type of robots will you make? p.s please can me and my friend have one?" – Student

"Haha! Unfortunately there's usually only one of each and they have to be kept here! I aim to make it possible to build lots with the £500 though" – James, engineer

"That's really cool! How long does it take to build a robot?" – Student

"The ones I'm using for my PhD may take me 1 or 2 years to completely finish - but over that time I'll make maybe 10 versions with each being an improvement of the one before" – James, engineer

"It's a good idea to do lots of different versions in that long time of making one. Thanks James for answering all our questions." – Student

Engineer winner: James Clarke

James' plans for the prize money: *"What I'd like to do is develop a health monitoring kit that you can make and personalise. It would record maybe your heartbeat, and how active you are during the day – maybe even with a leader board for your class. Who would be the most active? You could customise it too, and make it whatever colour and shape you like!"* Read James' [thank you message](#).



Student winner: 567dagg45

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...

"By participating in this very fun contest, I learnt that there are many types of engineers that help our society...The main thing was that anyone can be an engineer in this world!" – Student

 Sarah Hampson
@sarahmhamps
Nooooo evicted! 🏠💔 Thank you so much @IAEGMOOH & @welcometrust for this Nov's #IAEUK's Diagnosis Zone! 🚑💉🧪🔬 It's been an absolute blast! 🎉