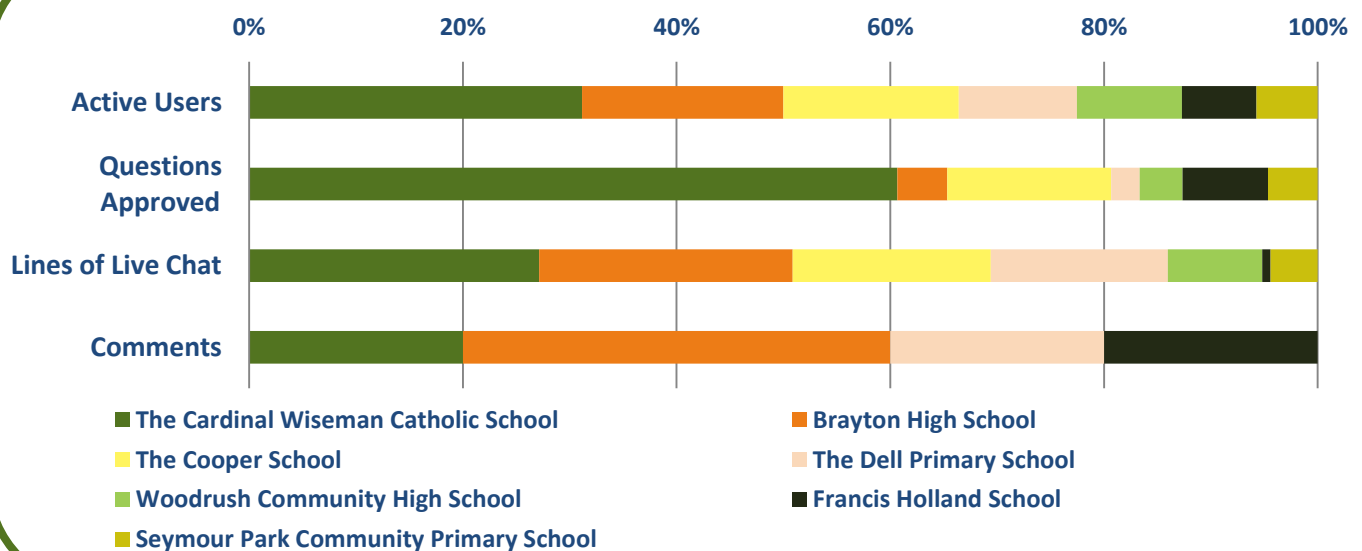


June 2016

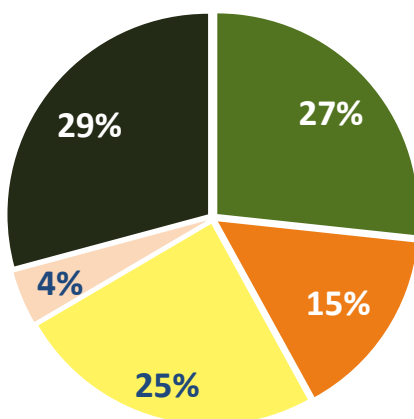
The Water Zone was funded by the Wellcome Trust, following the themes of its major initiative for 2016, **The Crunch**. Vinnie creates virtual simulations of equipment on construction vessels to test if they will survive real world conditions, Tam is a marine engineer who works at sea and on the docks managing the maintenance of ships, Mo is a civil engineer who builds water treatment facilities to process safe drinking water, Matt is a research engineer who studies chemical reactions to destroy pollutants in drinking water and Joe is a PhD student studying ways to protect people from flooding. Students in the zone showed a general interest in engineering with many career based questions. This zone was the quietest out of all the June zones with just seven schools taking part, resulting in a below average number of questions approved.

School data at a glance

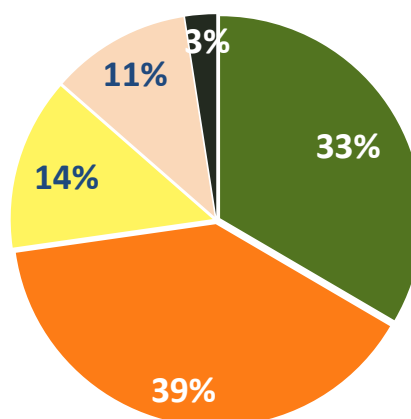


Engineer activity

Answers



Lines of live chat



Engineer	Profile views	Position
Matt Hobbs	630	Winner
Vinnie Khiroya	660	2nd
Mo Stokes	470	3rd
Joe Shuttleworth	522	4th
Tamsin Dobrowolska	441	5th

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

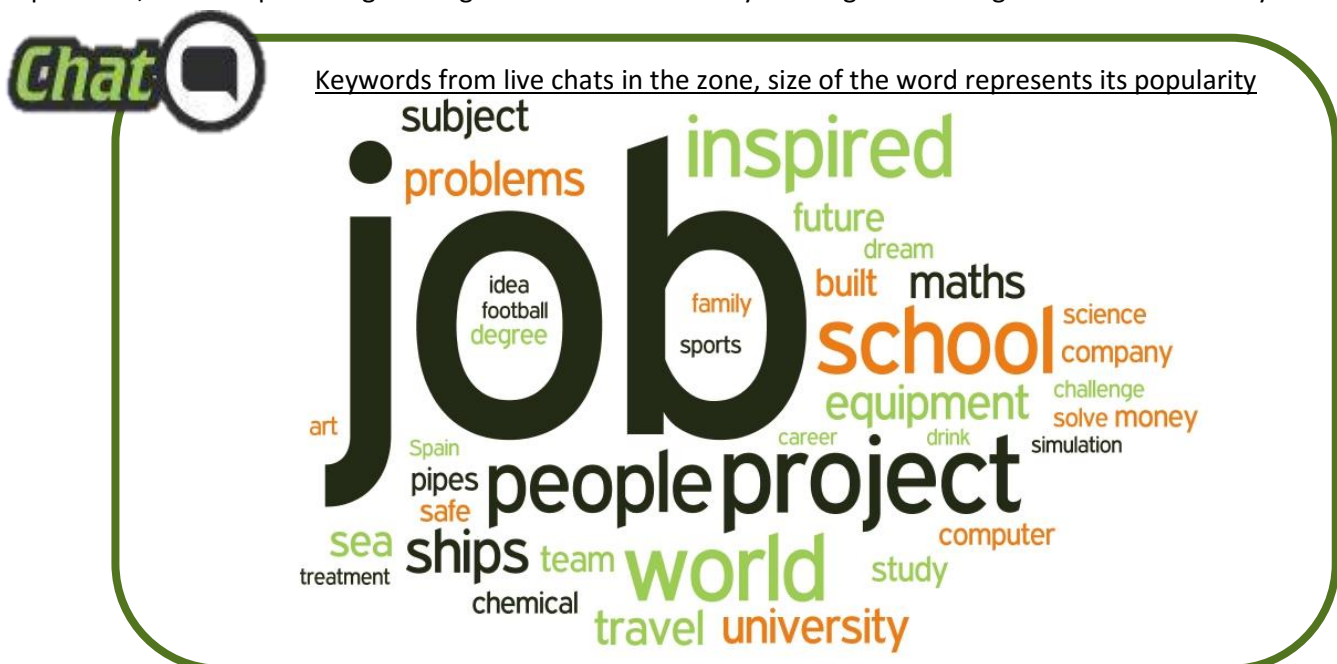
PAGE VIEWS	WATER ZONE	JUNE '16 ZONES AVERAGE
Total zone	14,719	19,051
ASK page	1,070	1,397
CHAT page	3,020	2,696
VOTE page	915	1,146

Popular topics

<p>Many of the questions in this zone were about the engineers' jobs and experiences. Students asked about meetings, working hours and travel, and there was particular interest in the different projects the engineers had worked on, how challenging they found them and whether they had ever had ideas that were rejected. Within the live chats and ASK section many students asked about engineering as a career choice, showing an interest in different types of engineering, what qualifications are needed and what advice the engineers had for them.</p>	Comments	13	45	39
	Votes	201	285	285
	Live chats	12	19	17
	Lines of live chat	3,315	4,909	4,916
	Average lines per live chat	276	263	295

Most questions relating to the theme of water were based around the engineers' individual jobs. Mo was asked about water tanks; how long they take to make, how big they can be and how expensive they are. Joe received questions on flooding and Vinnie was asked about the software she uses to build her simulations and her experiences learning to code.

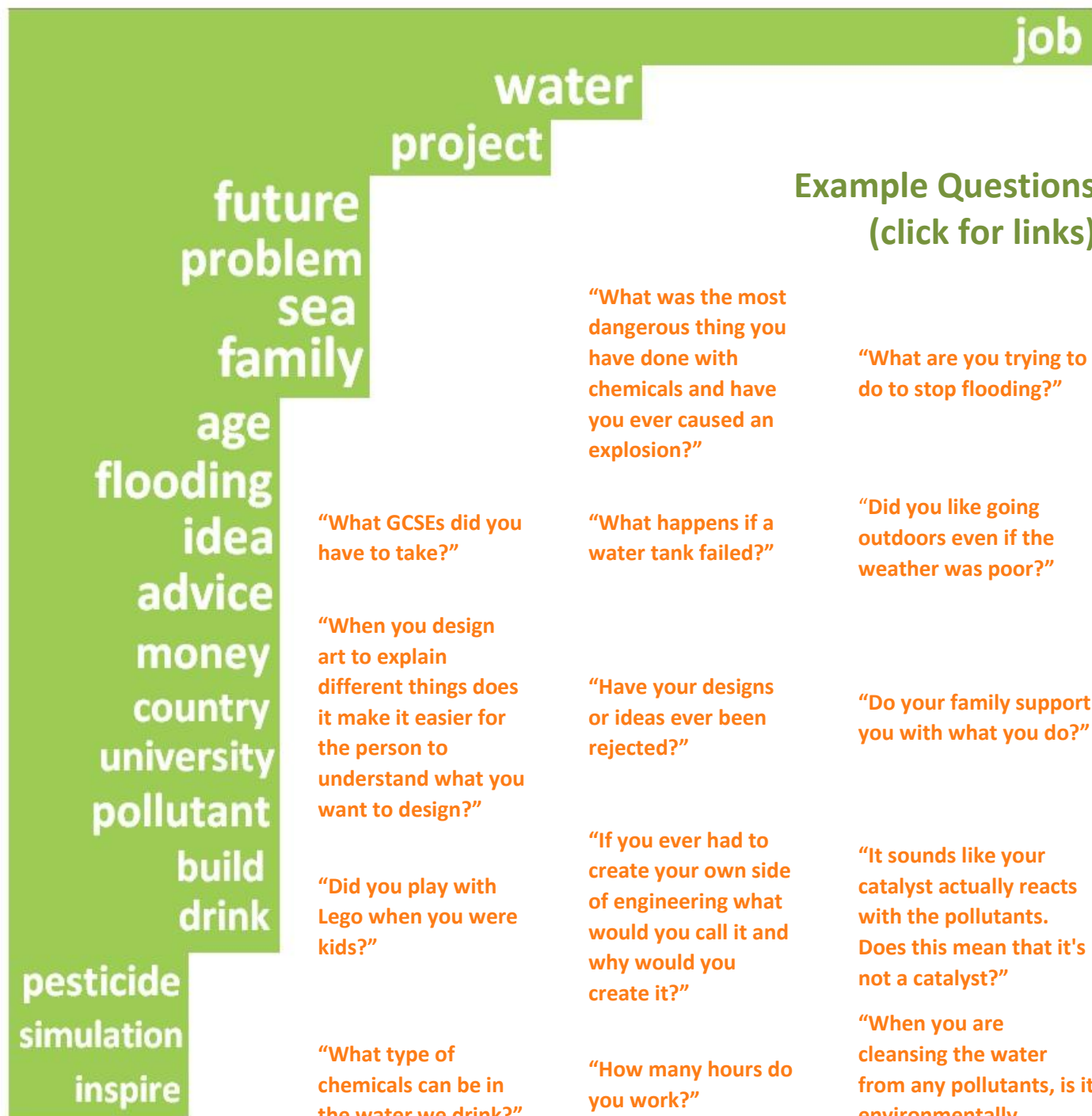
Off topic, students asked about the engineers' favourite sports, hobbies, food and family life. Tam especially was asked about her work/life balance, as she has recently had a baby. There were also some thoughtful hypothetical questions, for example asking the engineers what advice they would go back and give themselves at 12 years old.





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 was the most dangerous thing you have done with chemicals and have you ever caused an explosion?"

"What are you trying to do to stop flooding?"

"What GCSEs did you have to take?"

"What happens if a water tank failed?"

"Did you like going outdoors even if the weather was poor?"

"When you design art to explain different things does it make it easier for the person to understand what you want to design?"

"Have your designs or ideas ever been rejected?"

"Do your family support you with what you do?"

"Did you play with Lego when you were kids?"

"If you ever had to create your own side of engineering what would you call it and why would you create it?"

"It sounds like your catalyst actually reacts with the pollutants. Does this mean that it's not a catalyst?"

"What type of chemicals can be in the water we drink?"

"How many hours do you work?"

"When you are cleansing the water from any pollutants, is it environmentally friendly?"

"Could you do your work if there was no internet?"

"Did you do fluid dynamics?"

"Do the rise and falls in sea levels really affect your job or how you instruct people to carry out an operation?"

"What is the biggest project you have worked on?"

Examples of good engagement

Within the chats students came prepared with some informed and thoughtful questions.

"To what extent do you believe the world is in, in terms of environmental issues and do you work in other countries around the world who really have no clean water as opposed to the UK??" – Student

"That's a really interesting question and there's lots to think about. My work is focused in the UK, although my ideas like designing new chemical reactors could easily applied in other countries. It's hard to comment on the state of the world in environmental terms, I can say that industry needs to be responsible for they're doing. For example the air and water and China is very badly polluted, but Britain did the same thing during the industrial revolution!" – Matt, engineer

"Thanks so much that was really detailed and I learnt so much" – Student

Students also used the live chats as a chance to ask the engineers about areas of STEM they were interested in, such as coding.

"I am really interested in coding, I was wondering what coding language you think is the most important, and do you think coding is an important skill for STEM subjects?" – Student

"Coding is definitely important for STEM subjects. A lot of my friends who did pure science degrees have either gone on to become programmers or they've had to learn programming while continuing science based careers." – Vinnie, engineer

"When did you start learning code?" – Student

"I didn't start learning code until university." – Vinnie, engineer

"Do you think it is important to start coding in school or is it too early and could confuse students?" – Student

"I think coding should be an option to learn in school for those who want to. If it's taught from basics it can be quite straight forward and I don't think interested students should be underestimated. A lot of people start programming very young." – Vinnie, engineer

Engineer winner: Matt Hobbs

Matt's plans for the prize money: *"I would create a table-top treatment processes to demonstrate water treatment to schools. Sometimes we take it for granted that we turn on the tap and clean, drinkable water comes out. I'd like to show people what goes into the water treatment processes which are essential to our everyday lives."* Read Matt's [thank you message](#).



Student winner: ErikaTatiana

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...

"This online chat idea and the entire website is such an excellent idea." – Teacher

"Taking part in this programme has definitely taught me more about what being an engineer consists of and what it is." – Student