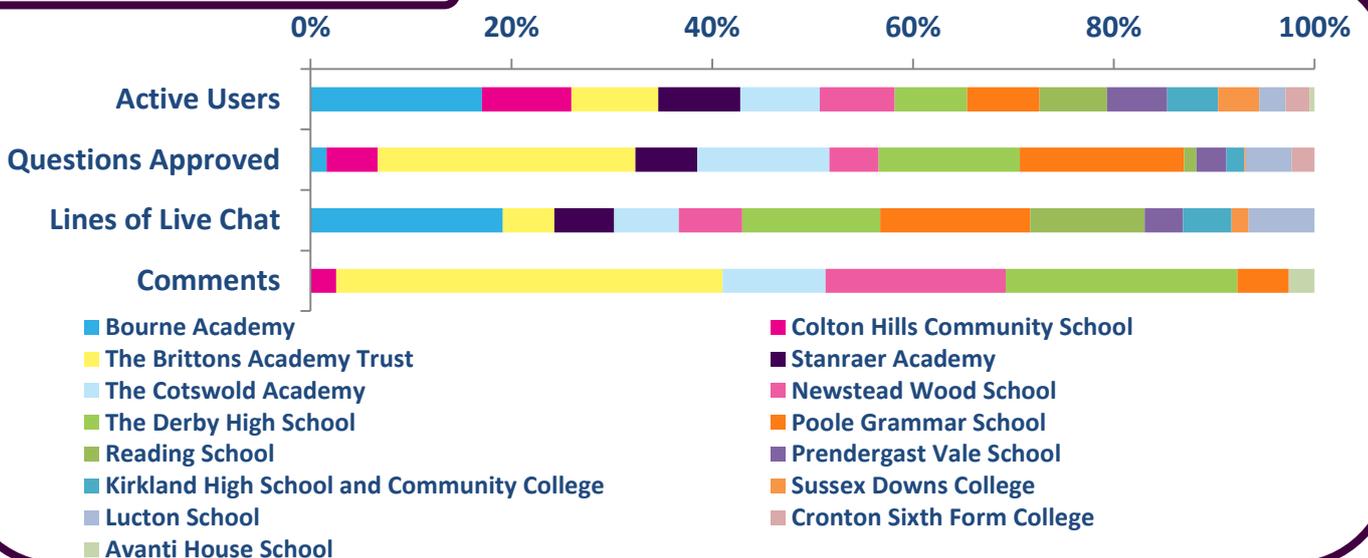




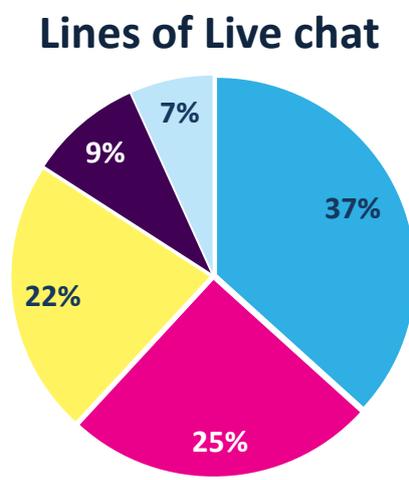
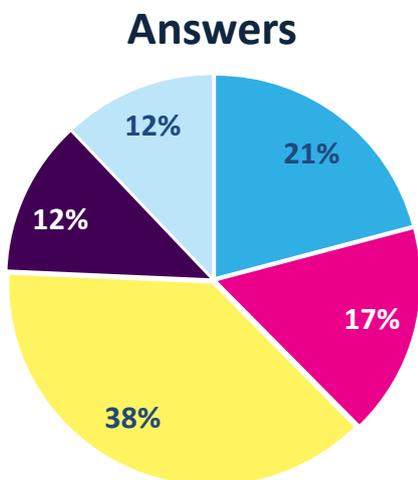
November 2015

The Tantalum Zone was a general science zone funded by the Science and Technology Facilities Council. Four of the scientists, Monique, Carsten, Ashley and Bernard were connected to this organisation, either as users of its facilities and data, or funded by its grants. The scientists varied backgrounds included building particle accelerators, firing lasers at proteins, modelling galaxy clusters, developing plant-based biotechnology and improving the safety of steel. This was the busiest of the November zones in terms of questions from students, and over 1200 were submitted. The popular topics in the zone reflected the research of the scientists, and many were physics related, ranging across subjects from sub atomic to galactic scales. Notably, Monique contributed nearly 40% of the answers, whilst zone winner Ashley was the most active in live chats.

School data at a glance



Scientist activity

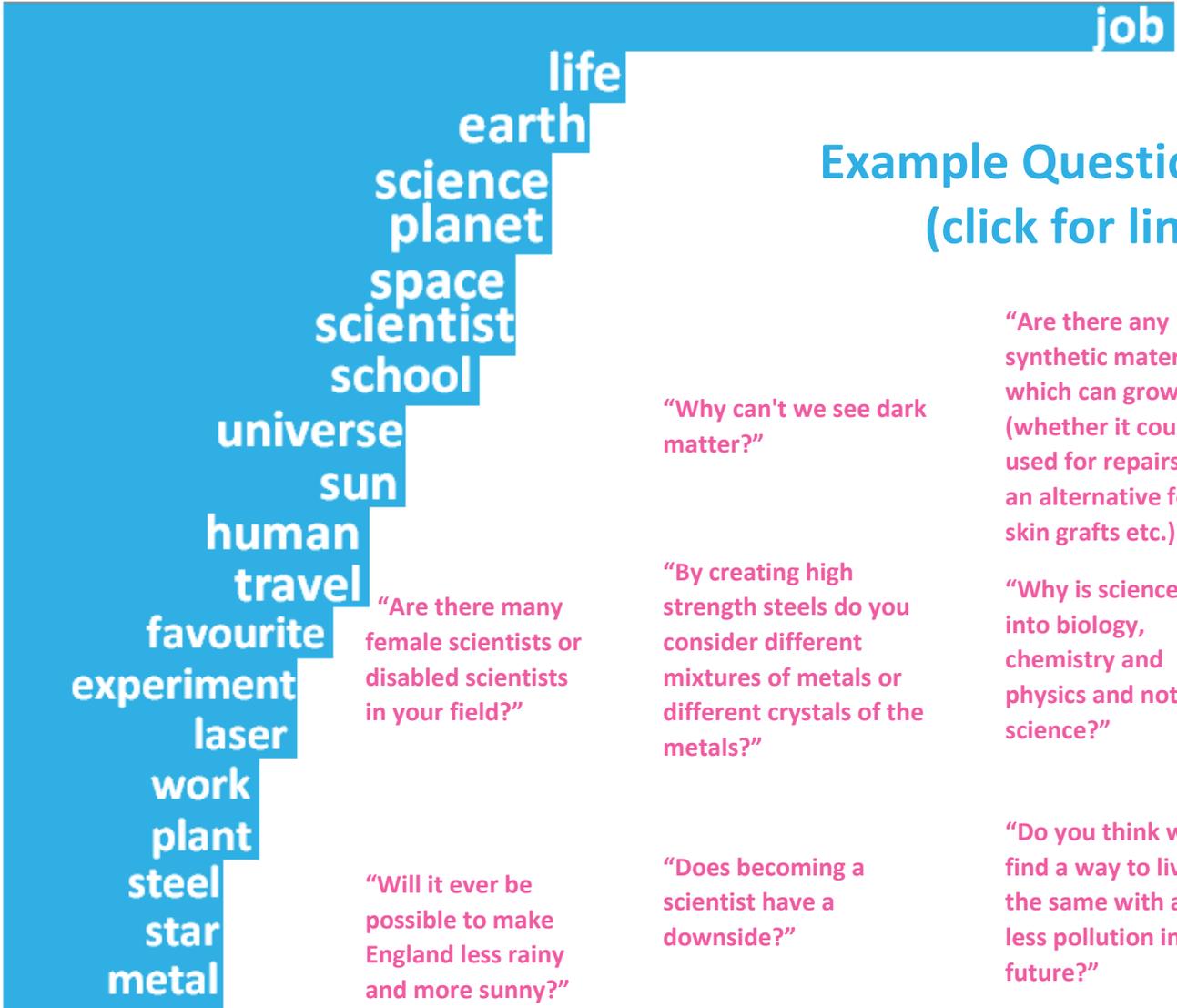


Scientist	Profile views	Position
Ashley Hughes	830	Winner
Bernard Ennis	813	2nd
Monique Henson	797	3rd
Carsten Welch	615	4th
Maria Magdalena Razalam	645	5th



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

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32



Example Questions (click for links)

“Are there any synthetic materials which can grow (whether it could be used for repairs or as an alternative for skin grafts etc.)?”

“Why can't we see dark matter?”

“By creating high strength steels do you consider different mixtures of metals or different crystals of the metals?”

“Why is science split into biology, chemistry and physics and not just science?”

“Are there many female scientists or disabled scientists in your field?”

“Do you think we'll find a way to live life the same with a lot less pollution in the future?”

“Will it ever be possible to make England less rainy and more sunny?”

“Does becoming a scientist have a downside?”

“What do you think of animal testing?”

“Can cows predict the weather?”

“Is there a formula to calculate the gravitational pull of an object?”

“Is the universe going to end as the big rip, big crunch or big freeze?”

“How old were you when you got interested in science?!”

“How do you find the people that are researching the same thing as you and do?”

“Are constellations actually that shape or just the human mind likening them to shapes they know?”

“What do you do if you go a long time without making a new discovery?”



Examples of good engagement

Many of the chats were busy and the scientists did well to not only keep up but also have conversations. In the exchange below Bernard and a student discussed the impacts and ethics of scientific research:

“What are you researching and how is it going to help the world?” – **Student**

“I’m an astrophysicist and I study the biggest things in the Universe - galaxy clusters. They are made up of hundreds of galaxies all held together by gravity. Each of those galaxies is made up of hundreds of billions of stars, so galaxy clusters are truly huge! Studying galaxy clusters helps us to understand the nature of gravity, dark matter and the Universe.” – **Monique, scientist**

“At the moment I am investigating how certain types of steel behave when we load them. This will help us to design better materials for safer cars and buildings” – **Bernard, scientist**

“Why do you study in different materials to make them stronger? If a criminal gets one, won’t he use it to escape?” – **Student**

“Well that’s true, once you design something criminals will always find a way to use it for their own ends. Still, the benefits to society outweigh the actions of one or two nefarious individuals.” – **Bernard, scientist**

Scientist winner: Ashley Hughes

Ashley’s plans for the prize money: *“So far, I have been flirting with ideas that could get some high school(s) involved in a larger event (maybe tag along with a science fair?) to try maximise the benefit for the students. I would like whatever I do to be hands on and personal as it is important to experiment and communicate in order to nurture a passion for the subject!”* Read Ashley’s [thank you message](#).



Student winner: Aaliyah

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 girls here are all between 11 and 12 and have really enjoyed you answering their questions” – Teacher

“Getting in touch with various schools is great and it would be nice if more images could be shared to maybe create fascination for specific topics” Carsten, scientist



I'm a scientist and when I talk with very curious and enthusiastic pupils I enjoy it even more! thanks @StranraerAcad