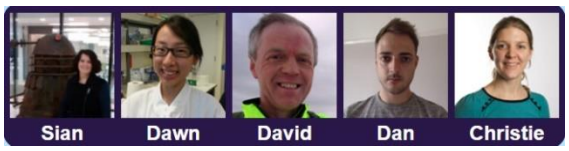
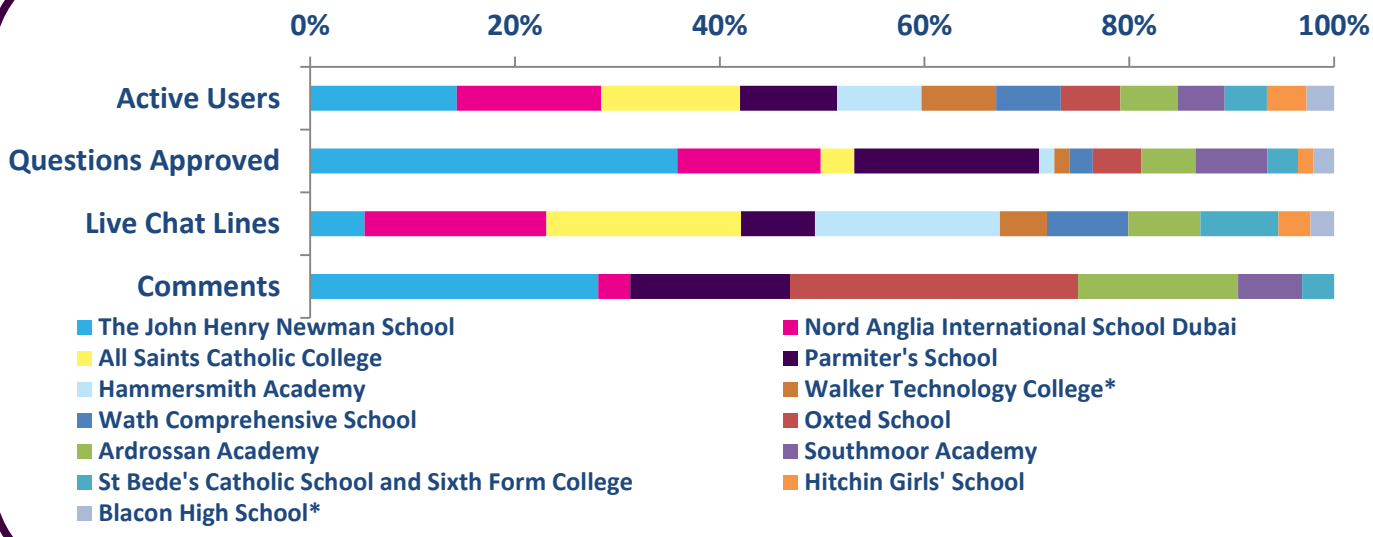


June 2016

The Thallium Zone was a general science zone funded by the Wellcome Trust. Sian works for the Food Standards Agency working with data to make sure food is safe to eat, Dawn is a cell biologist who grows brain cells and researches the effects of Alzheimer's disease, David is a physicist who researches gravitational waves, Dan works at GSK testing drugs of the future and Christie is a PhD student researching how proteins work in the mitochondria. This zone was very busy, with a higher than average amount of questions approved. There was an even spread of answers by scientists in the ASK section, and Dawn, who won the zone, made up almost half of all live chat by scientists throughout the event.

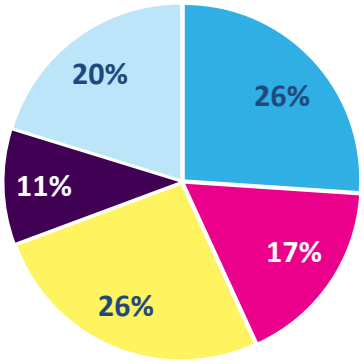
School data at a glance



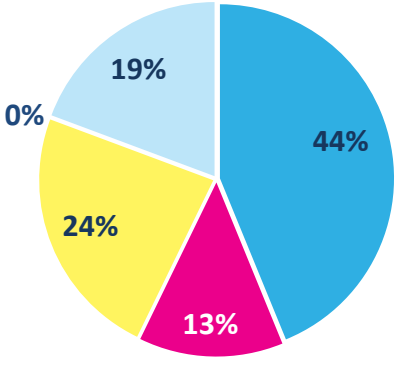
* Widening participation schools, as defined at http://about.imascientist.org.uk/2016/widening-participation-2016

Scientist activity

Answers



Lines of Live Chat



Scientist	Profile views	Position
Dawn Lau	907	Winner
David Robertson	801	2nd
Sian Thomas	930	3rd
Dan Lewis	703	4th
Christie Waddington	582	5th

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

PAGE VIEWS	THALLIUM ZONE	JUNE '16 ZONES AVERAGE
Total zone	25,850	21,639
ASK page	2,182	1,582
CHAT page	4,289	2,737
VOTE page	1,628	1,369

	THALLIUM ZONE	JUNE '16 ZONES AVERAGE	IAS 2012-16 AVERAGE
Schools	13	13	10
Students logged in	457	429	364
% of students active in ASK, CHAT or VOTE	90%	89%	85%
Questions asked	826	563	704
Questions approved	399	253	303
Answers given	825	550	554
Comments	44	47	79
Votes	369	327	288
Live chats	22	21	15
Lines of live chat	4,300	6,422	5,049
Average lines per live chat	195	304	329

Popular topics

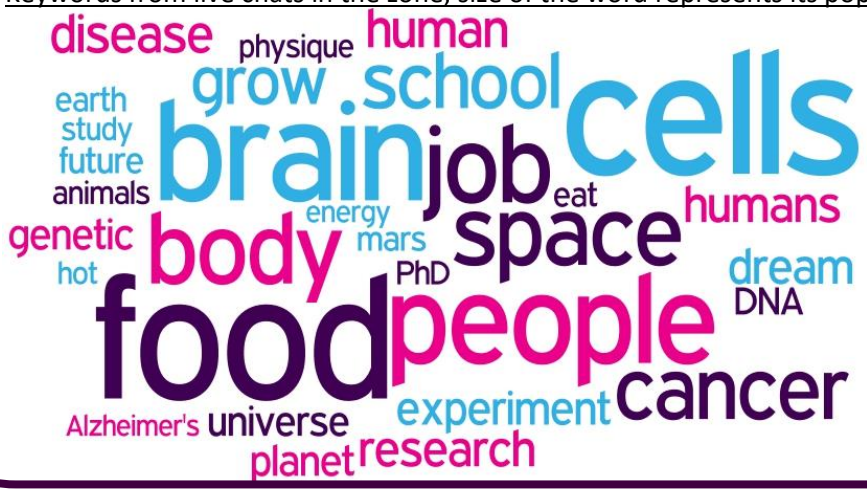
Popular topics related to the scientists' jobs and research, showing that the students were engaging with the profiles and previous answers in the ASK section. Cells were a popular topic, with both Dawn and Christie working with mitochondria and many students showed an interest in their work. There were questions about how the brain is affected when someone suffers from Alzheimer's disease, the types of protein inside cells, the process for growing cells and how their work helps to cure diseases. There were also more general questions on cells, including interest in plant and animal cells.

There was a lot of interest in space which was mostly aimed at David. Students wanted to know about his work with lasers, as well as a general curiosity about planets, gravity, stars and black holes. Sian received a lot of questions about food, some to do with her job but mostly a general interest in what makes food healthy or unhealthy.

Students also asked questions about what the scientists enjoyed about their jobs, how they became interested in science and the types of experiments they had done. Within the live chats, students were often keen to talk about experiments they had done at school.

Chat

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



Ask ?

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

Example Questions (click for links)

"What is a Lyman-Alpha Forest?"

"Is throat cancer genetic?"

"Do you get a pay boost when as a scientist when you discover something new?"

"Is the brain delicate? Is that why there are so many bones protecting it?"

"What would happen if the earth stopped spinning?"

"Can you make cells for paralyzed people to grow their legs back?"

"What has been the most difficult thing about your job and why?"

"How do you use lasers to observe gravitational waves?"

"What happens to the brain during the Alzheimer's disease and is it genetic?"

"How did you predict a norovirus outbreak with just using maths algorithm?"

"Why does the ocean produce more oxygen than plants?"

"When have you been the most proud of yourself?"

"How do you start trying to look for new planets?"

"How does food impact science?"

"Do you look at what food will be like in the future?"

"How did you find life and working in another country? Was it similar to England or any different?"

Examples of good engagement

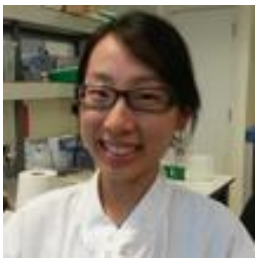
There was a lot of interest in cells and the possibilities of cell research.

> *"Does Dolly the sheep have everything a normal sheep has?"* **– Student**
>
> *"They moved the DNA from one cell into another cell, producing an identical clone! Since then they've cloned other animals, including dogs! I read that there's a company in China that can clone your pet for you!"* – **Christie, scientist**
>
> *"Can you clone yourself so there are two of you?"* **– Student**
>
> *"Yes we can! Dolly the Sheep was cloned from an animal cell."* – **Christie, scientist**

Students were responsive to the scientists' answers and often related to them through their own lives and experiences.

> *"What kind of drugs do you make?"* **– Student**
>
> *"I've made an array of medication over the years ranging from liquid suspensions, tablets and capsules that treat all different kinds of illnesses. The main drugs I am working on now are for Asthma."* – **Dan, scientist**
>
> *"Thank you Dan for answering my question!!! That is why I voted for you"* **– Student**
>
> *"My bros got asthma :). I use GSK Products for my eczema."* **– Student**
>
> *"Yes Dan! No pressure but please find one for asthma as I'm asthmatic."* – **Student**

Scientist winner: Dawn Lau



Dawn's plans for the prize money: "*I would like to produce a series of web comics which tackle the barriers of becoming a scientist, and introducing young scientists to proper experimental design.*" Read Dawn's **thank you message.**

Student winner: Caitlin

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…

"Thank you again for running this. The kids really do enjoy talking to "real life" scientists rather than their "fake scientist" teachers!" **– Teacher**

"I liked any question where the answer is "we don't know". I think the most important thing to get across to students (of any age) is that there is lots we don't know and are still trying to find out!" **– Scientist**