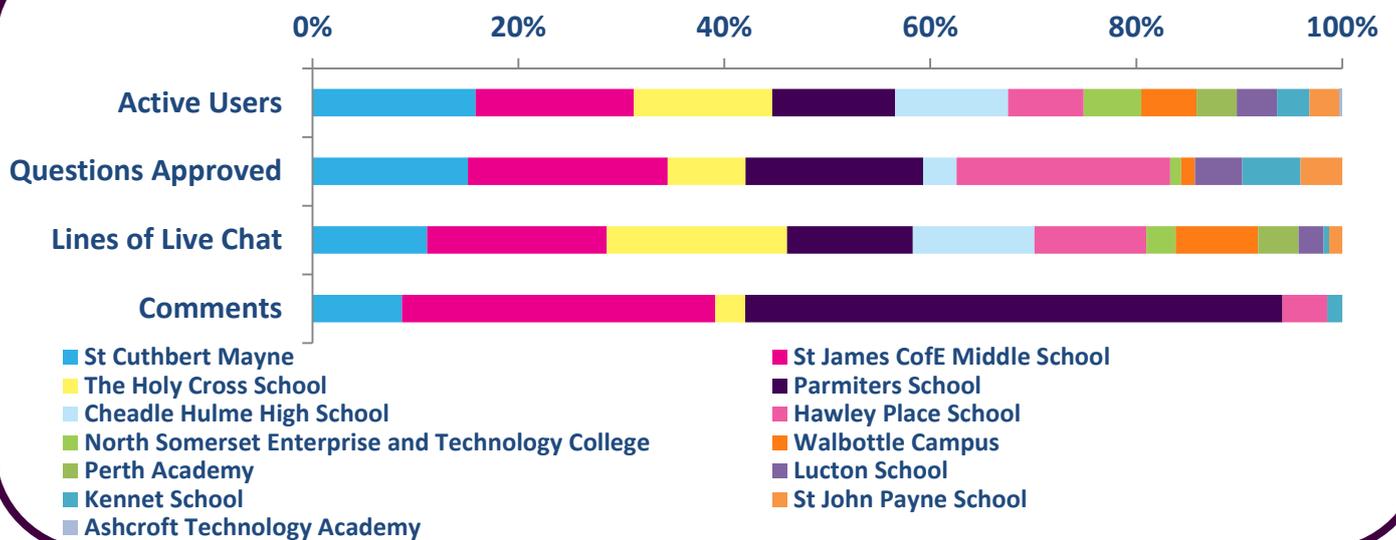


March 2016

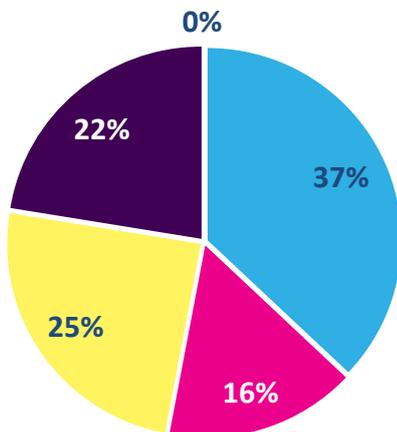
The Iridium Zone was a general science zone funded by the Science and Technology Facilities Council. Scott is a particle accelerator physicist at Rutherford Appleton Laboratory. Jim and Adrian are STFC funded PhD students; Jim analyses data to find new planets and Adrian is a particle physicist. Vicky works in flu vaccine stability management at MedImmune and Gaia studies genetic mutations in children. The zone was busy with students mostly asking science questions rather than wanting to know about the scientists' careers, with students interested in topics like black holes, gravity and disease. Most of the scientists were very active within the zone and there was a higher than average number of answers given compared to the other March zones. Scott, the winner of the zone, was the most active of all the scientists and contributed almost half of all live chat lines by scientists and over a third of all answers in ASK.

School data at a glance

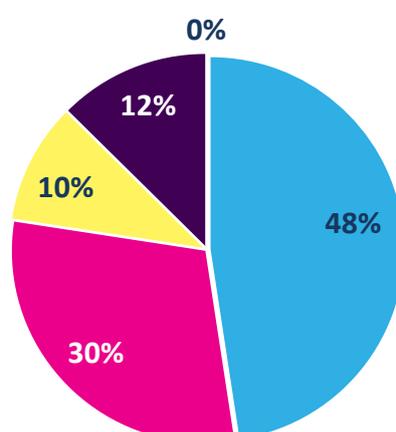


Scientist activity

Answers



Lines of Live Chat



Scientist	Profile views	Position
Scott Lawrie	1,255	Winner
Jim Barrett	788	2nd
Gaia Andreoletti	573	3rd
Adrian Buzatu	461	4th
Vicky Caulfield*	504	5th

*due to personal reasons Vicky was unable to participate in the event

Key figures from the Iridium Zone and the averages of the March zones

PAGE VIEWS	IRIDIUM ZONE	MAR '16 ZONES AVERAGE
Total zone	24,328	26,007
ASK page	1,587	1,896
CHAT page	2,629	3,412
VOTE page	2,108	1,820

	IRIDIUM ZONE	MAR '16 ZONES AVERAGE	IAS 2012-15 AVERAGE
Schools	13	12	10
Students logged in	450	461	360
% of students active in ASK, CHAT or VOTE	91%	87%	85%
Questions asked	646	642	712
Questions approved	371	287	306
Answers given	691	586	555
Comments	122	132	80
Votes	394	352	286
Live chats	21	19	15
Lines of live chat	8,775	6,750	4,970
Average lines per live chat	418	364	339

Popular topics

The scientists were very active and encouraging with their answers and as the event went on students asked more creative questions, much of the time showing good subject knowledge. As there were three physicists in the zone they received a lot of questions about space, with students wanting to know about the fabric of space time, what planets are made of and spaghettification in black holes.

Gaia was asked questions about disease and genetics, and there was interest in cancer and research into different cures.

There were lots of general science questions, with students showing a curiosity about the world around them. For example, they asked about the function of our appendix and tonsils, and why paint dries on the wall but not in the tin. Within the chats some students said that they struggled with science at school, or did well in science but really didn't enjoy it. In these instances the scientists were very positive and encouraging.





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



"Why do apples go brown when they are exposed to oxygen?"

"Does the uncertainty principle affect your job?"

"How often do parents carry a disease that they pass on to their children?"

"Is global warming serious or not as the media suggests?"

"What are quarks made from?"

"What legislation would you change to improve science in your field?"

"Why do metals react with water?"

"What is a black hole and is it dangerous?"

Examples of good engagement

Students often asked quite in depth questions within the chats, and received clear and informative answers from the scientists:

"I do not yet agree 100% with the big bang theory, although I understand the evidence is strong, can you convince me that it did happen?" – **Student**

"Great question! There is lots of evidence, mostly the cosmic microwave background. We can measure it v accurately and compare with v accurate models and they agree brilliantly." – **Scott, scientist**

"We see the radiation coming from all directions of space, proving there is no centre of the Universe. That is the evidence: the cosmic microwave background. We also notice that all galaxies move away from us, meaning the Universe is expanding. That means in the past the Universe was small and dense. That state is called the Big Bang." – **Adrian, scientist**

The friendly atmosphere within many chats also opened up the floor to students and teachers asking directly for help and opportunities:

"Can very interested 6th form students who want to study particle physics at a higher level attend your conference in Oxford?" – **Teacher**

"We have masterclasses at CERN with intense one day training for the entire class, either at a local institute, or through video at CERN. I recommend that for your class." – **Adrian, scientist**

"We have lots of tours for schools round my lab: Rutherford Appleton Lab. This is where all the big UK science happens! Come take a look!" – **Scott, scientist**

Scientist winner: Scott Lawrie

Scott's plans for the prize money: *"I will build an incredible high voltage sparking xylophone! I regularly give talks to schools and I particularly like doing electrical demonstrations with the high voltage Van de Graff generator. One thing that has caught my eye is a high voltage pipe organ which has spark gaps held inside plastic tubes. I would like to build one of these musical instruments and take it with me on my school visits."* Read Scott's [thank you message](#).



Student winner: Ki

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...

"Scientists aren't all that different to everyone else and anyone can really become a scientist if they really wanted to." – **Student**

"It's much more personal and interactive with [students] being able to really engage rather than just being 'spoken at', so it's a really valuable tool! Highly recommend :)" – **Scientist**