



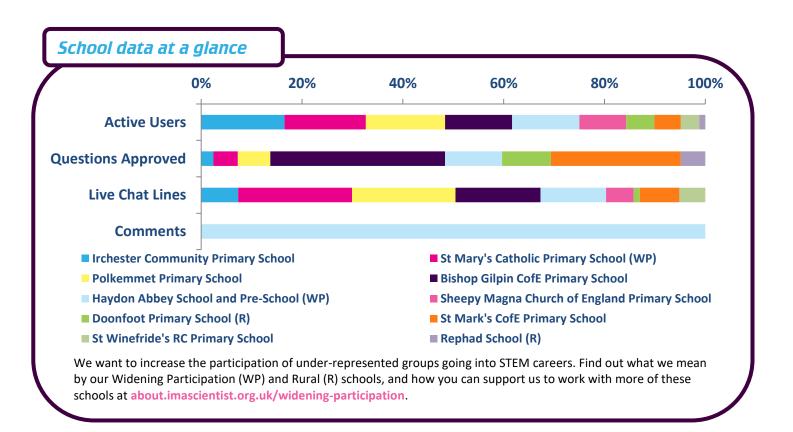


March 2017

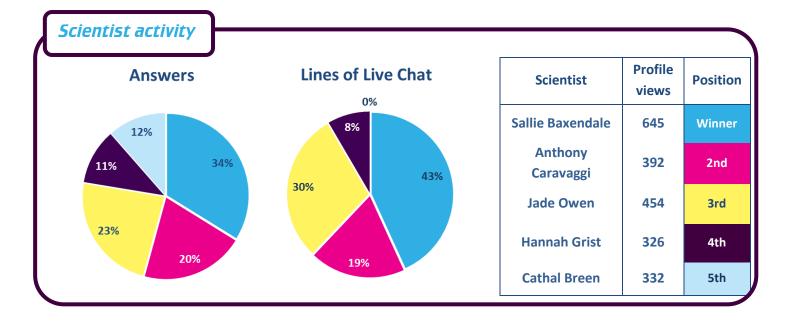
The Enquiry Zone was funded by Wellcome. It was a general science zone for primary schools focusing on the development of a citizen science project. The scientists involved each suggested a research idea which they refined with the students in the live chats and ASK section and students then voted for the project they would most like to carry out at their school. With the help of the winning scientist, schools will carry out the research in June 2017, recording and sharing their results using the nQuire-it online platform developed by the Open University.

Sallie, the winner of this zone, is a neuropsychologist who suggested an experiment looking at whether what you know about people before you meet them influences how attractive you think they are. Cathal specialises in diagnosing heart problems and his project idea was for students to develop an application that checks the pulse, to help detect whether someone needs first aid. Jade is an analytical scientist, who wanted students to test whether there's a link between how much air you can breathe and how far you can shoot a blow dart. Hannah is an ecological researcher, whose idea was for students to pick an animal and study its behaviour, and Anthony is a conservation biologist who wanted students to study birds in their school and find out what they like to eat.

During the event students asked questions both related and unrelated to the project ideas. The chats were lively and students were excited to talk to scientists, which meant conversations about the project ideas usually started part way through the chats. It seemed that the more the students knew about the projects and the aim of the zone beforehand, the more discussions there were about the research ideas. Similarly, the more experience the scientists had in the zone the easier they found to encourage conversations by asking students about their thoughts and ideas.







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

| PAGE VIEWS | ENQUIRY ZONE | MAR '17 ZONES AVERAGE |
|------------|-----------------|-----------------------------|
| Total zone | 9,435 | 18,600 |
| ASK page | 591 | 1,451 |
| CHAT page | 1,461 | 1,703 |
| VOTE page | 1,116 | 1,523 |

| Popular topics |
|----------------|
|----------------|

Discussions around the research ideas included questions about technical details, the results, the reason why the scientist wanted to do the project and the impact the research would have.

Students asked specific questions to the scientists, such as asking Jade about the different types of people she wanted to do her experiment on and whether she thought different people who lived in different places would have more lung capacity. Anthony was asked lots of questions about different foods he has already tried giving to birds, as well as the other animals he has done experiments on.

| | ENQUIRY ZONE | MAR '17 ZONES AVERAGE | IAS 2012-17 AVERAGE |
|---|-----------------|-----------------------------|------------------------|
| Schools | 10 | 13 | 10 |
| Students logged in | 341 | 455 | 376 |
| % of students active in ASK, CHAT or VOTE | 73% | 80% | 85% |
| Questions asked | 225 | 594 | 713 |
| Questions approved | 124 | 276 | 307 |
| Answers given | 201 | 482 | 549 |
| Comments | 17 | 47 | 77 |
| Votes | 174 | 307 | 296 |
| Live chats | 14 | 17 | 15 |
| Lines of live chat | 5,001 | 6,543 | 5,265 |
| Average lines per live chat | 357 | 379 | 348 |

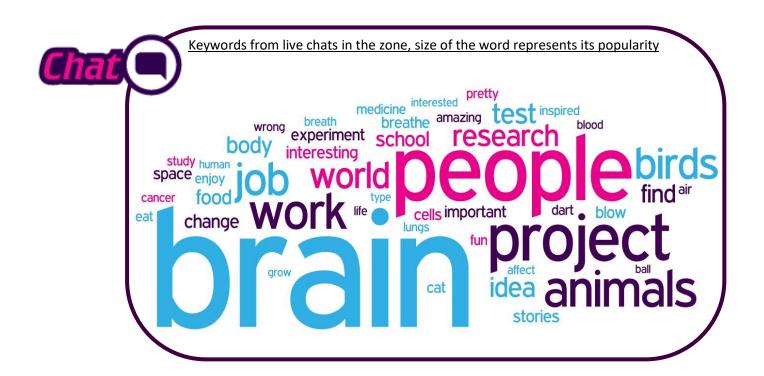


Students connected particularly well to Hannah's and Anthony's project ideas as they were to do with animals. They asked about the project ideas, as well as a lot of general questions. Birds was a popular topic, with students wanting to know about different species of birds, which birds are closely related and the different birds they can see in their school grounds.

Sallie's research idea provoked some thoughtful questions from the students, such as whether social media could affect the way we see our friends, and whether finding out something bad about someone before we've seen a picture of them could change our opinions. There were also some conversations about how Sallie's work is relevant, as some students felt that at school everyone had to get on and it doesn't matter what people look like.

Students were also curious about the professional life of the scientists. They asked about what inspired the scientists to do what they do, what research and experiments they do and whether they enjoy it. They wanted to know how long experiments generally took, and whether their work is difficult.

Pupils also asked other science questions that ranged from general to specific facts, such as why vinegar reacts with baking soda and whether a flower has ever bloomed in space.







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

0 5 10 15 20

research idea

work brain

Example Questions (click for links)

experiment

people bird "How long do experiments go on for?"

"Why do you like being a scientist?"

"How do you think this research will affect the lives of other people?"

scientist animal

"Why do you want to find out what birds like to eat?"

"Does this affect people's relations as they judge personality on how the look?"

"What effect does social media have on the human brain?"

job future

"How do you know if an animal is poisonous?"

"What will the consequences be if you hear something bad about someone but you haven't seen them?"

"Would there be a difference between an African and an English child blowing a dart?"

machine

family world

"If you could change anything in the world what would it be?"

"How many machines are in one hospital?"

"What is your hope for the future in science?"

time travel

DNA

relative

advice

blow dart

"Do you always make sure people are not out of breath before you do your tests?"

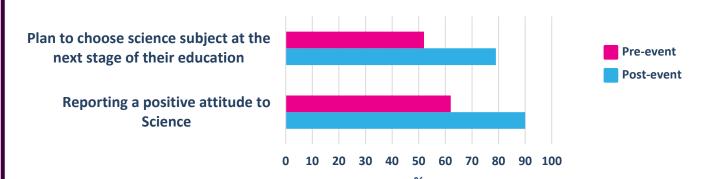
"Would birds be fussy after a long winter?"

"Does our brain affect our DNA?"



Students' attitudes to STEM

We ask students directly about how they feel about science, before and after taking part in the event. It's clear that participating in I'm a Scientist has an overall positive effect on students' attitudes to science:



Figures are averages from *I'm a Scientist* Zones run between 2012 and 2015. We're still collecting feedback for March 2017, but we expect to see a similar positive change.

Examples of good engagement

Within the chats the students were interested in the project ideas and wanted to know how the experiment would work, and to share their own opinions. Often, discussions involved multiple students:

"What do you mean by your project idea?" - Student

"My project would involve you making up some nice and not so nice stories about someone and seeing if that information influences how attractive other people think they are - do you think you could help with that?" – Sallie. scientist

"Yes we will do that for you no problem:)" - Student

"Do you personally feel that when you know something nice about someone are they more attractive?" – **Student**

"Good question - yes - when I get to know someone and like them they do become more attractive" – Sallie, scientist

"I think people perceive people who are beautiful as being nicer even when this may not be true." – **Student**

"Brilliant observation - scientists have shown that this is exactly what happens - pretty people aren't nicer but that's what people tend to think. — Sallie, scientist



Students found Anthony's project idea in particular easy to relate to, and had lots of questions for him about birds and the different kinds of things they can eat:

"What do you think birds will mostly eat?" - Student

"I think birds will mostly eat sunflower hearts, but I'm not sure. Which is why I want you to help me find out."

— Anthony, scientist

"Do you think birds will like human food as much as we do?" - Student

"I think that birds might like some human food, yes. What food did you have in mind?" - Anthony, scientist

"Corn and bread?" - Student

"We couldn't try bread because it can be really bad for birds (don't feed it to ducks, either), but we could try corn." – Anthony, scientist

"Okay can they have acorns?" - Student

"We could put out acorns, sure. Did you know that jays, which are a type of crow, store acorns in woods and can remember where they left hundreds of them? It helps them survive the winter." – **Anthony, scientist**

Scientist winner: Sallie Baxendale

Sallie's plans for her research project with the students: "Studies have shown that people tend to predict that good looking people will be nicer and kinder than people who are not so physically attractive, even when they haven't met them! I want to find out whether the opposite is true. If you hear good or bad things about a person before you meet them, does it influence how physically attractive you think they are?" Read Sallie's thank you message.



Student winner: Class 50

For great engagement during the event, this class 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...

"What a wonderful time we have had this week! Year 6 have particularly gained from it! Thank you so much...we have loved every minute." – **Teacher**

"I could really tell that [the students] had thought very hard about the projects that all of the scientists were proposing and they were genuinely interested in the work we do every day." – Sallie, scientist

