



Srinath



Natasha



Nana



Marialuisa



Gautam



Alexander

March, 2019

The Lawrencium Zone was a general science zone supported by Wellcome. In the zone were six scientists:

- Srinath Kasturirangan, a genetic engineer who builds Frankenstein molecules in an attempt to cure cancer.
- Natasha Dowey, a volcanologist and geoscientist who uses knowledge of tectonic plates to understand where oil and gas can be found.
- Nana Odom, a clinical engineer who works as a healthcare scientist in a hospital.
- Marialuisa Crosatti, a microbiologist working as a technician in a university.
- Gautam Kambhampati, a PhD student interested in using lasers to build a quantum computer.
- Alexander Allen, the winner of the Lawrencium Zone, is a PhD student interested in nanoscience.

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

PAGE VIEWS	LAWRENCIUM ZONE	MAR '19 ZONES AVERAGE
Total zone	11,583	15,399
ASK page	729	1,114
CHAT page	1,153	1,291
VOTE page	906	1,327

	LAWRENCIUM ZONE	MAR '19 ZONES AVERAGE	IAS 2012-19 AVERAGE
Lawrencium Zone Schools	8	8	10
Students logged in	431	388	391
% of students active in ASK, CHAT or VOTE	97%	92%	86%
Questions asked	314	443	675
Questions approved	206	216	297
Answers given	341	437	532
Comments	27	29	71
Votes	311	312	308
Live chats	19	19	16
Lines of live chat	7,745	6,732	5,711
Average lines per live chat	408	352	358

Popular topics

Students in the Lawrencium Zone were keen to get to know the scientists as people, asking about their hobbies and opinions – 20% of all questions put to ASK were categorised as 'personal'.

Students were also interested in the scientists' careers, asking about the science behind each of their research areas. They were interested in Natasha's work, asking lots of questions about geology, volcanoes and Natasha's personal experiences visiting sites.

Gautam's work was also popular, with students asking questions relating to atoms and molecules, and in particular wanting to know more about the lasers and how they work.



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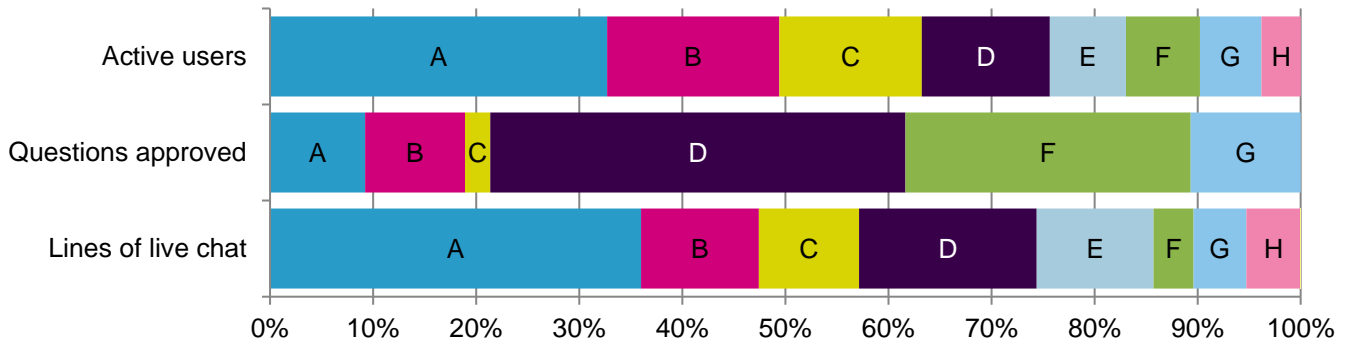


Gautam



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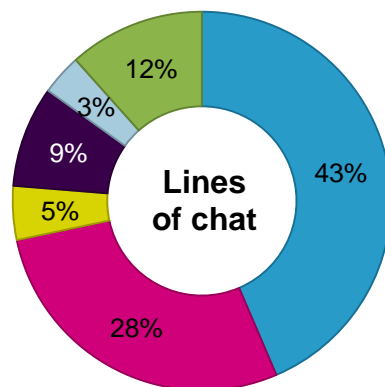
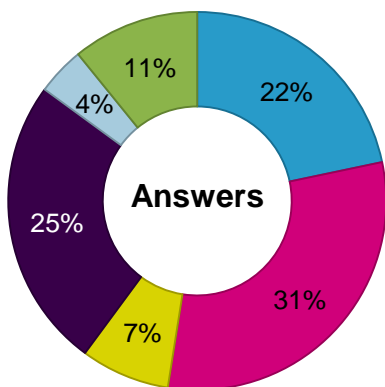
School data at a glance



School	Year/s	Classes
A Ferndown Middle School, Ferndown, U	Y6, Y7, Y8	4
B Brayton Academy, Selby, U	Y8	3
C Outwood Academy Shafton, Barnsley, WP/U	Y9, Y10	3
D Harwich and Dovercourt High School, Harwich, U	Y9, Y10	4
E The John Henry Newman Catholic School, Stevenage, U	Y9	1
F Colchester County High School for Girls, Colchester	Mixed STEM Club	1
G St Cuthbert Mayne School, Torquay, WP/U	Y7, Y8	1
H Walker Riverside Academy, Newcastle-upon-Tyne	Y8	1

We want to increase the participation of under-represented groups going into STEM careers. Find out what we mean by our under-served (U) and WP schools (WP), and how you can support us in working with more of these at about.imascientist.org.uk/under-served-and-wp/

Scientist activity



SCIENTIST	PROFILE VIEWS	POSITION
Alexander Allen	386	Winner
Natasha Dowey	452	2nd
Nana Odom	321	3rd
Srinath Krangan	337	4th
Gautam Kambhampati	205	5th
Maria Luisa Crosatti	263	6th



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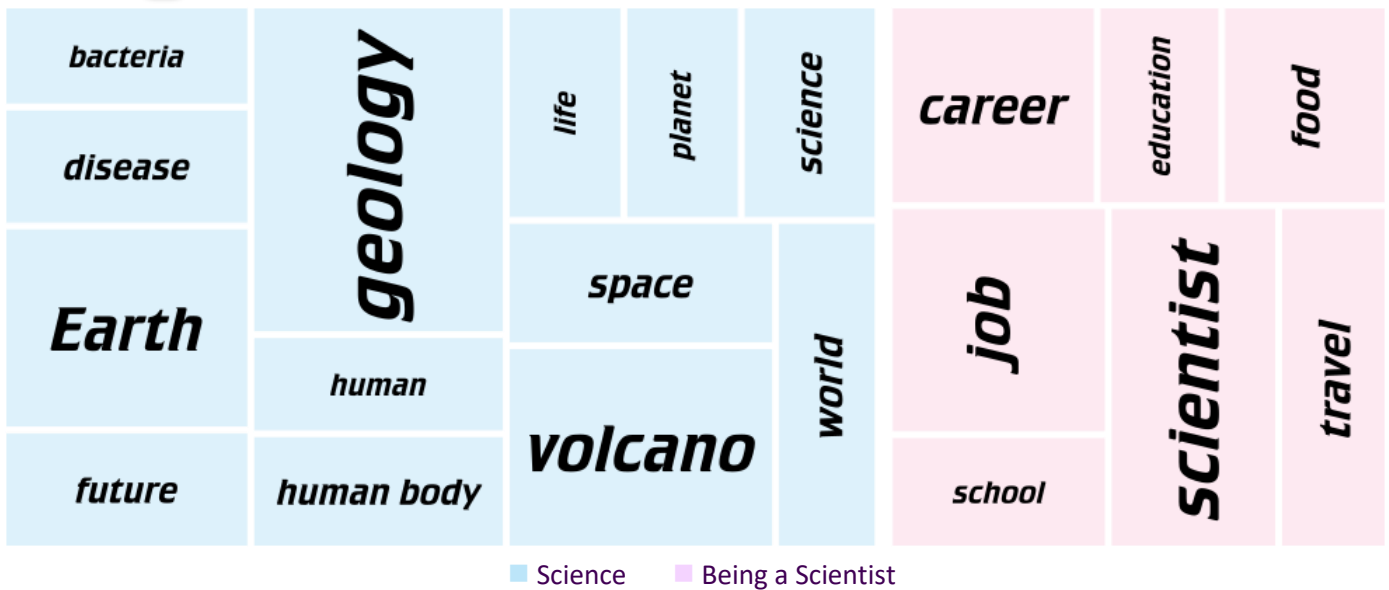


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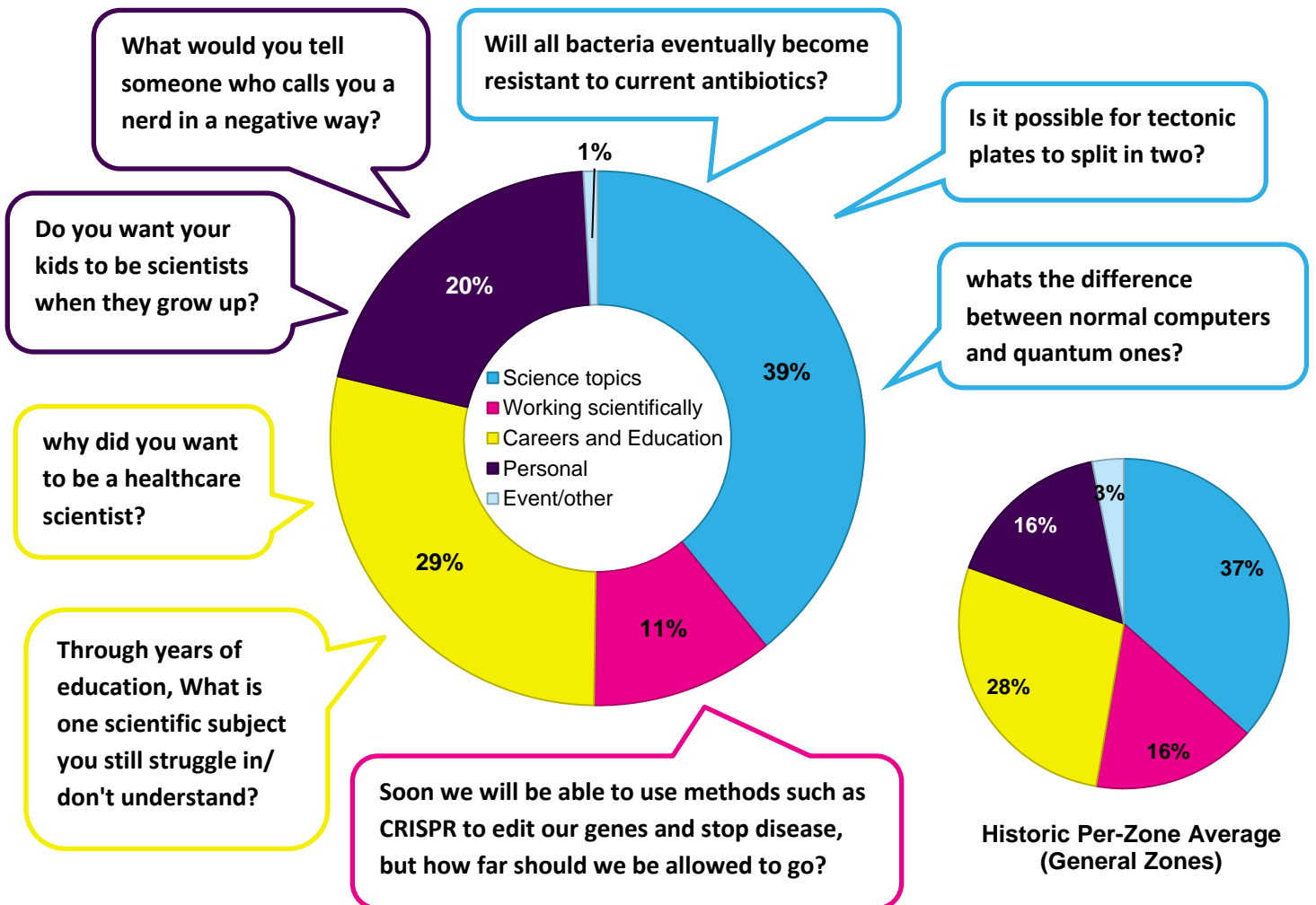
Top Keywords of questions approved in the Zone

Area represents frequency of use



Question themes and example questions in the Zone

Find out about how we've coded the questions at about.imascientist.org.uk/what-do-students-ask-about/





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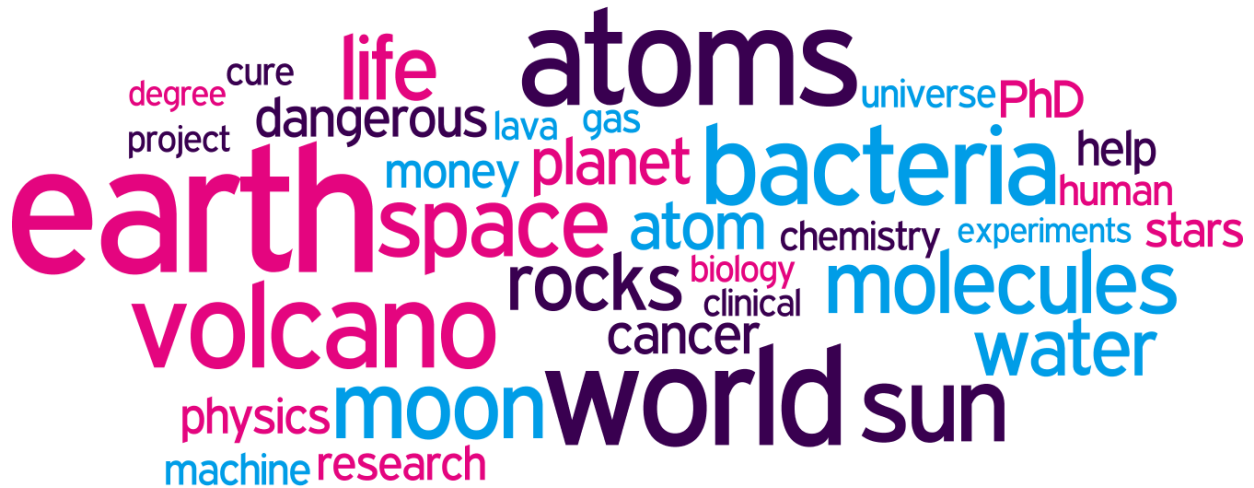
Gautam



Alexander

Chat

Frequent words used in live chats by students and scientists. Size of the word represents its popularity



Examples of good engagement

Students were interested in knowing more about the gender imbalance within STEM, and in response the scientists were positive and encouraging:

“Is there more women getting into science nowadays?” - Student

“There are more now than ever before. But, as in all parts of society, things still aren’t even stevens. I try to use outreach to encourage more girls into science. Often women aren’t as confident at getting up and speaking out about their scientific ideas, and I’m trying to change that, along with lots of my colleagues. I know a lot of men who are great at encouraging women into science too. It needs a lot of effort from everyone!” - Natasha, scientist

“Wow! I think society needs to change their points of view about girls doing science! They can do the same thing as boys. Thanks for being an inspiration to the girls who aren’t as confident in science as you! :)” – Student

Students would sometimes ask the scientists questions that related to a statement on their profile – Srinath mentions that his job involves ‘stitching together antibodies to build “Frankenstein” molecules’, and here he answers a student’s question with seriousness:

“What would happen if Frankenstein molecules took over the world and you were the only bioengineer alive?” - Student

“That is a really funny question 😊 I would design Jedi molecules to fight and defeat the Frankenstein molecules 😊 Having had a few days to think about it, this question is not too far from reality! Sometimes the drugs that we make, after they complete the job they were designed to do – kill cancer cells, kill invading bacteria, reduce fever or infection – the drugs can stick around in the body and if they are not removed from the body, they can start attacking



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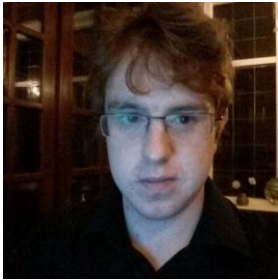


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the organs of the body, causing some unwanted side effects. To prevent this, we design antidotes, just like you have antidotes for a snake bite, to go and clear the Frankenstein drugs from the body once they are done with their task so they do not cause any more damage. So these could be the Jedi molecules that go after the Frankenstein molecules to get rid of them and keep our body safe.” - **Srinath, Scientist**



Scientist winner: Alexander Allen

Alex’s plans for the prize money: “I would like to set up a teaching and exam preparation YouTube channel. The money would be spent on the appropriate microphone and camera set-up. This would allow us to look at topics in a more relaxed environment than a school and maybe ask and answer some of the questions that teachers don’t have time to cover.”

Read Alex’s **thank you message**.

Student winner: Farheen

Farheen from Colchester County High School for Girls was nominated by the scientists for being ‘polite, sincere and asking some amazing questions’. ‘Farheen has been excellent in the chats, asking some very intriguing questions,’ said one scientist. As the student winner, Farheen will receive a certificate and a gift voucher.

Feedback

We’re still collecting feedback from teachers, students and students but here are a few of the comments made about March’s *I’m a Scientist* activity...

I sign up every term as it is a great addition to help students engage with science. It also ticks an Ofsted box of helping disadvantaged students to relate what happens in the classroom to the real world. – **Teacher**

[I have learnt] a lot really about the level I should keep in a conversation to keep interest and how to give students little snippets of info so they do become curious... a crash course in communication really.
And I think I just became passionate about them, who they are what they think, what interests them – **Silvia, scientist**

[I have learnt] scientists are normal people aswell not just nerds – **Student**

Thank you very much for answering all of our questions. we have learnt a lot today and we really appreciate it because it has truly inspired us to follow our dreams and not worry about all the bumps in the way – **Student**

It was fab! The children were engaged, there was a buzz around the room! What a pleasure to witness and inspire them! – **Teacher**