



Savannah



Philippe



Lucy



Joanna



Harrison



Edoardo

June 2019

The Particles Zone was a themed zone supported by the Science & Technology Facilities Council and NCOP schools. It featured six scientists:

- Savannah Clawson, the winner of this zone, studies what happens when we smash particles of light together, using the ATLAS detector and LHC at CERN.
- Philippe Gambron uses computers to work out what happened during the first moments of the Universe.
- Lucy Budge is researching what happens when particles are smashed into each other at very high speeds.
- Joanna Huang is a PhD student learning about particles and the fundamental laws of the universe.
- Harrison Prosper tries to make sense of nature by colliding protons at the Large Hadron Collider.
- Edoardo Vescovi is a theoretical physicist developing mathematical models to measure the forces between particles.

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

PAGE VIEWS	PARTICLES ZONE	JUNE '19 ZONES AVERAGE
Total zone	11,828	14,954
ASK page	947	1,171
CHAT page	1,065	1,374
VOTE page	1,341	1,415

	PARTICLES ZONE	JUNE '19 ZONES AVERAGE	IAS 2012-19 AVERAGE
Particles Zone Schools	6	10	10
Students logged in	347	380	391
% of students active in ASK, CHAT or VOTE	92%	89%	86%
Questions asked	253	319	664
Questions approved	139	173	293
Answers given	374	414	529
Comments	42	46	70
Votes	268	303	308
Live chats	15	20	17
Lines of live chat	8,178	6,730	5,742
Average lines per live chat	545	346	357

Popular topics

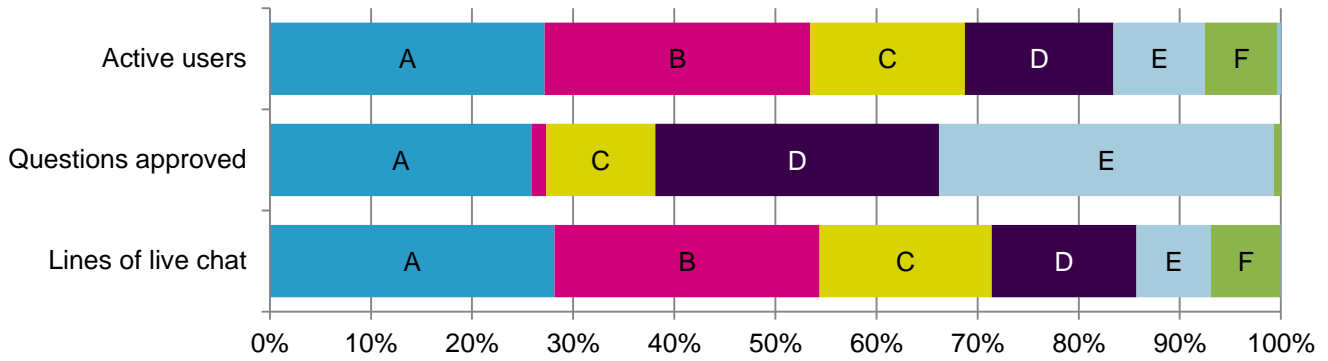
Students were interested in the zone theme and often asked for more info on topics they had read on the scientists' profiles, for example asking Lucy about what happens when tiny particles collide together, or for clarification on words such as quarks and gluons.

There were questions about the Large Hadron Collider, and how it works and what it can tell us, with students asking Harrison and Savannah about the experiments they have carried out while working at CERN.

There were lots of general physics questions, with students interested in how physics relates to space, the difference between particle physicists and theoretical physicists, and questions about how things work on a very small scale such as atoms and molecules.

Students asked lots of careers, wanting to know what it's like working as a scientist, what inspired them, what their favourite subject was at school, and whether you have to be good in all areas of science to become a scientist.

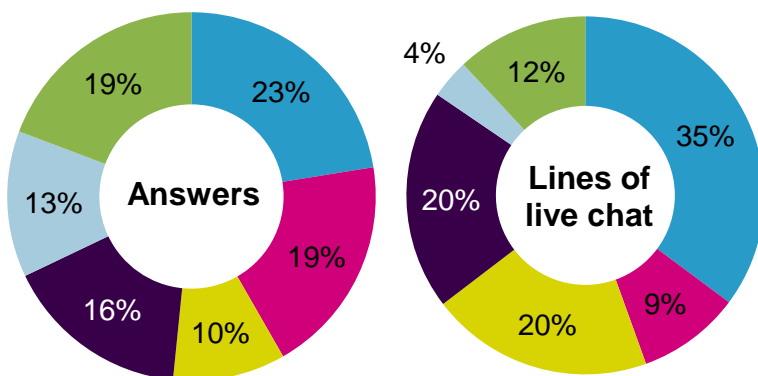
School data at a glance



School	Year/s	Classes
A	10	4
B	8	4
C	8	3
D	8	2
E	10	1
F	6	2

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/

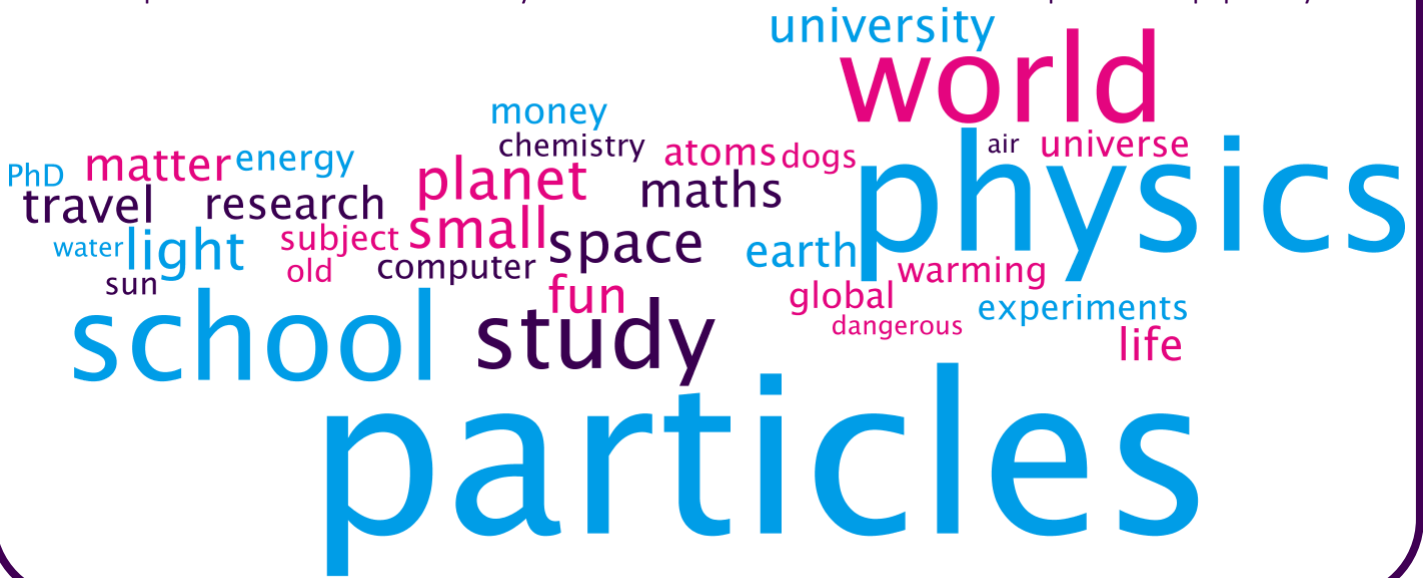
Scientist Activity



SCIENTISTS	PROFILE VIEWS	POSITION
Savannah Clawson	429	Winner
Harrison Prosper	273	2nd
Lucy Budge	239	3rd
Edoardo Vescovi	175	4th
Joanna Huang	214	5th
Philippe Gambron	233	6th

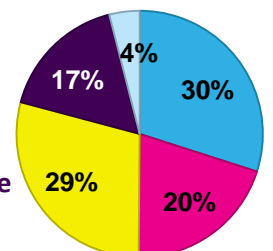
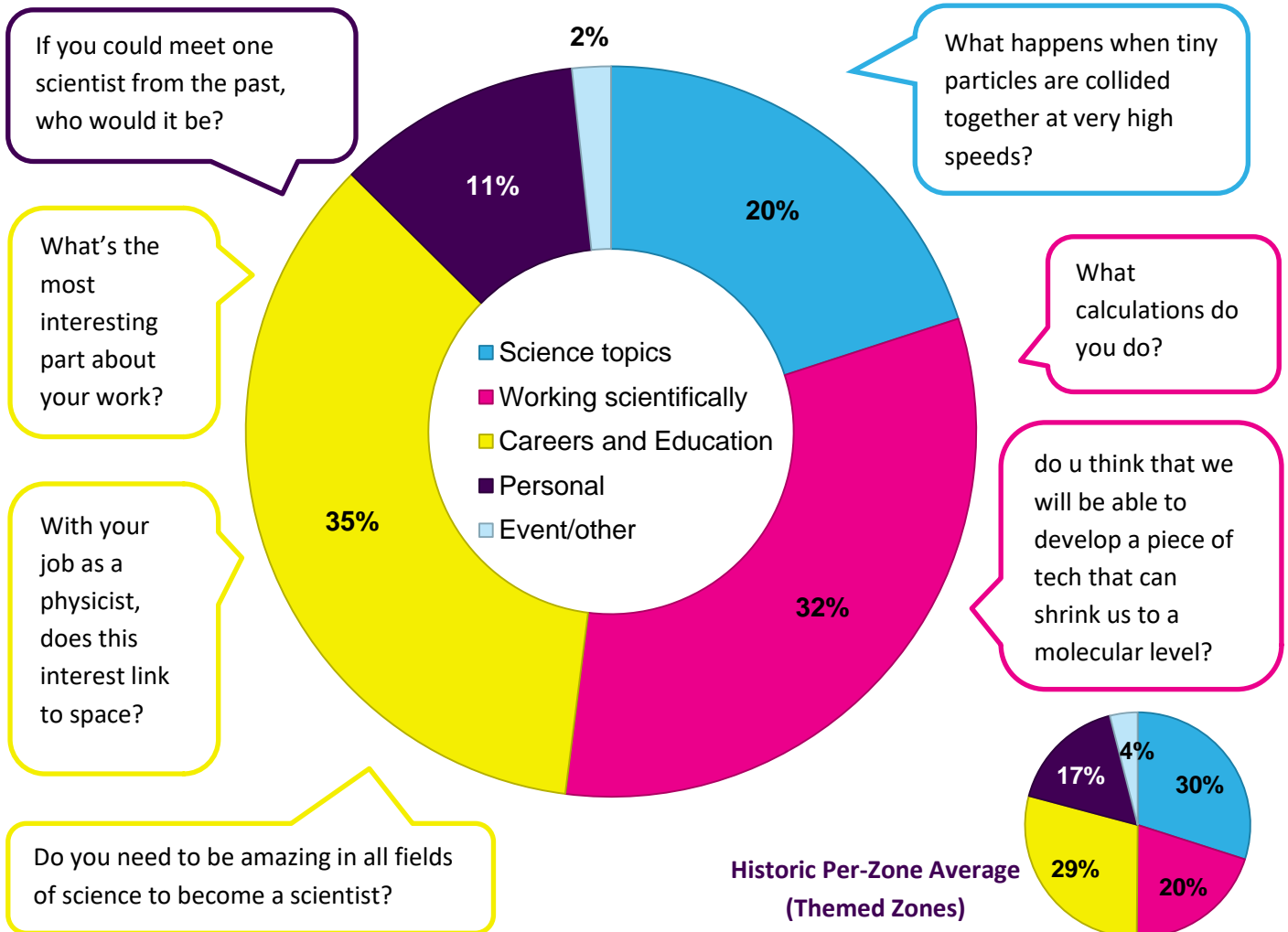


Frequent words used in live chats by students and scientists. Size of the word represents its popularity



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/



Examples of good engagement

Within chats and ASK students often asked for advice on careers or studying science:

*“Do you have any advice for young people interested in science today?” – **Student***

*“Do not neglect non-science subjects. The best scientists have a broad general education. So even as you focus on, say on science and mathematics, learn history, learn how to write well, etc.” – **Harrison, Scientist***

*“Work hard at school but also try to read up on the latest science going on in the world - you don't need to be reading proper science papers or anything like that, even just watching fun youtube videos is good and will get you excited about science! Most of all, enjoy it and don't worry if it feels tough sometimes - we all feel like that :)” – **Savannah, Scientist***

All of the scientists answered questions about their careers paths honestly, and were good at smashing stereotypes about physicists and science in general:

*“What were your parents reactions/opinions when you told them that you were going to work as a scientists or other jobs? (were they supportive?)?” – **Student***

“Friends and parents’ reactions were somewhat neutral at the beginning of university ... [now] I have a hard time when I introduce myself to someone who tries to grasp how I spend the day. The typical conversation goes like:

- 1) explain that physics is not physical education,*
- 2) physicist is not nuclear physicist and I’m no weapon builder,*
- 3) justify that doctor is not medical doctor and, no, it’s not less,*
- 4) I’m no student and get paid!*

*Ironic as it sounds, it’s too often true and these chats may help reducing the distance to our world.” – **Edoardo, Scientist***

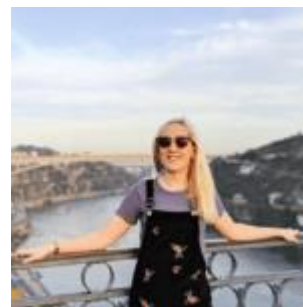
*“My parents have always been supportive of my choices which is great and I am super grateful for that. Unfortunately, a lot of people still don’t realise that girls can do physics just as much as boys and I got some funny looks and confused questions from friends and family when I decided to do physics at university. One of the questions that really annoyed me when I said I was going to study physics was “Oh, so are you going to be a teacher then?”... This question annoyed me because it was ALL they thought I could do as a girl with a physics degree.” – **Savannah, Scientist***

*“Confusion! Since no-one else in my family has done science beyond GCSE I think – but they have all always been supportive. They also still don’t understand what it is I’m studying, despite my best efforts to explain it!” – **Lucy, Scientist***

*“They were a bit puzzled but supportive. Sometimes, people don’t know very well what science is about. In this country, being a scientist enables you to find a nice job...In Belgium, where I am from, it is not like that. Studying physics is a little bit like studying philosophy. It is deemed useless. So people would tell me that, if it were to make such an effort, I should become an engineer or a lawyer instead.” – **Philippe, Scientist***

Scientist winner: Savannah Clawson

Savannah's plans for the prize money: "I will support the University of Manchester Physics Outreach group who run loads of cool activities for schools and the general public. We have workshops for school pupils of all ages, ranging from the very big (like planets and galaxies) to the very small world of particles. One of my favourite workshops is aimed at girls who are taking their GCSEs – to show that physics is just as much for them as it is for the boys! We also do loads of events for the general public like science busking at festivals."



Read Savannah's [thank you message](#).

Student winner: city354car

As the student winner, city354car will receive a certificate and a gift voucher.

Feedback

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

"It appeals to children with all types of abilities and gives them the opportunity to ask questions at their own level of understanding. The enthusiasm of the scientists involved is contagious and students get very excited when questions are answered." – **Teacher**

Great fun! I just love the fact I can talk a bit of science with the kids. I also love their refreshingly honest questions that give me a chance to go beyond science and talk about more philosophical things, I hope in a way they appreciate. – **Harrison, scientist**

"I have learnt that your background life doesn't just have to be about science as well and that you can do running, cooking, football etc in your free time" – **Student**