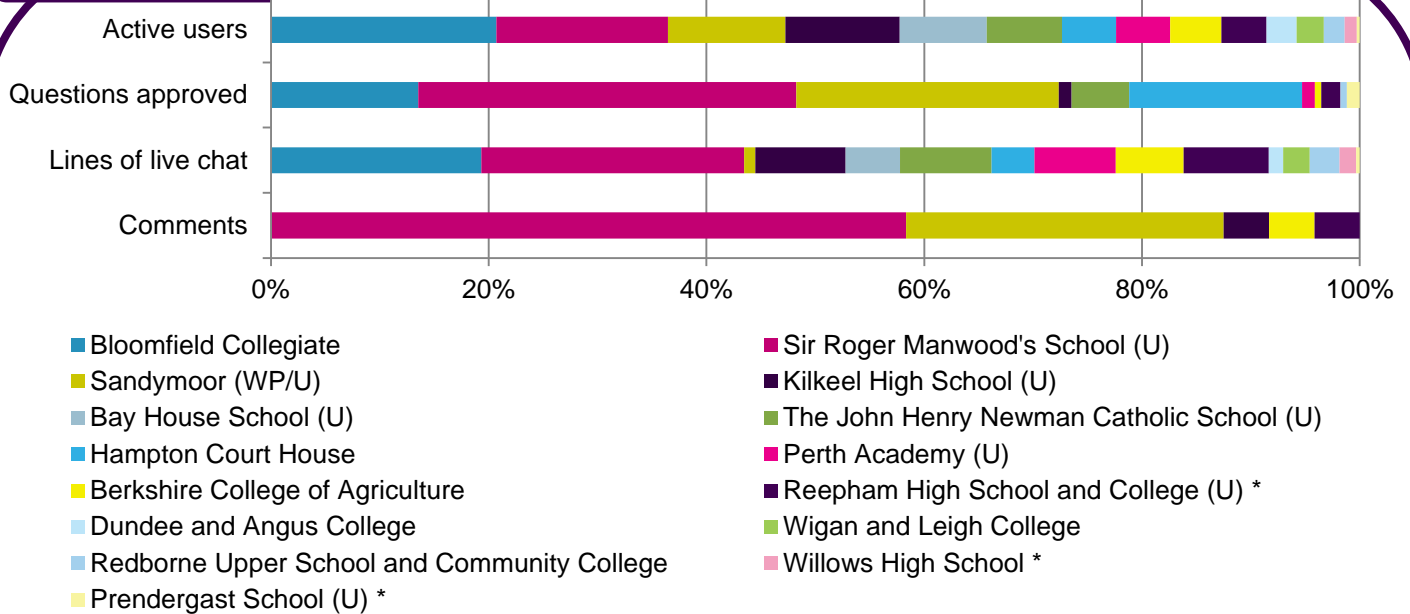


March 2018

The Genes Zone was a themed zone supported by Wellcome. Yinka is studying the DNA of cows in Africa to improve the amount of milk they can produce, Stéphane is researching the effect different lifestyles have on human sperm quality and Matt is a bioinformatician making pictures to explain patterns in gut microbes. Juhi is a PhD student researching genetic causes of pregnancy complications, Gemma teaches NHS staff about genetics and how it can help them provide better care for patients and David, the winner of this zone, is a postdoctoral research fellow studying the genetics of depression.

Students were very engaged with the zone theme and over 50% of questions in ASK were about science topics, relating to all things genetics. The scientists were great at explaining things in a way students could understand and often provided videos and links to support their answers.

School data at a glance

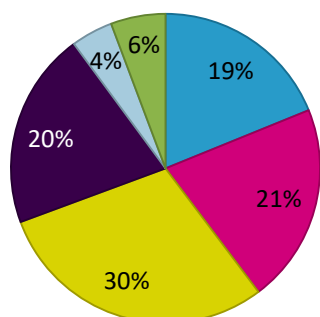


We want to increase the participation of under-represented groups going into STEM careers. Find out what we mean by our under-served (U) and WP schools (WP), and how you can support us in working with more of these at about.imascientist.org.uk/under-served-and-wp/

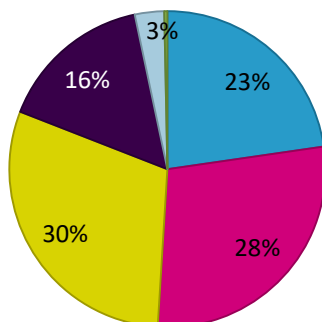
* Students were able to join other zones than their own to join open live chats and ASK questions. Students at these schools joined from other zones in the March event.

Scientist activity

Answers



Lines of chat



SCIENTIST	PROFILE VIEWS	POSITION
David Howard	679	Winner
Matt Bawn	737	2nd
Stéphane Berneau	655	3rd
Gemma Chandratillake	484	4th
Juhi Gupta	394	5th
Yinka Abejide	563	6th

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

PAGE VIEWS	GENES ZONE	MAR '18 ZONES AVERAGE
Total zone	19,465	19,571
ASK page	916	1,625
CHAT page	1,542	1,691
VOTE page	1,159	1,422

	GENES ZONE	MAR '18 ZONES AVERAGE	IAS 2012-18 AVERAGE
Schools	15	14	11
Students logged in	401	437	387
% of students active in ASK, CHAT or VOTE	90%	89%	86%
Questions asked	286	529	697
Questions approved	165	258	303
Answers given	297	469	541
Comments	70	62	75
Votes	317	348	304
Live chats	20	19	16
Lines of live chat	6,816	7,268	5,472
Average lines per live chat	341	388	354

Popular topics

Students in the zone were very interested in the theme, with questions about a huge variety of things to do with DNA and genetics. Students wanted to know about disease, inheritance and how genes affect your outward appearance. Many students were concerned with the ethics behind topics such as genetic editing and stem cell research, and the scientists were great at discussing controversial topics openly and honestly.

There was a lot of interest in the individual research areas of the scientists. David received lots of questions about mental health, with students asking how much of mental health issues are caused by environment and how much is due to genetics. Stéphane and Juhi were asked about reproductive systems in humans and animals, as well about as how genetic traits are passed from parents to children.

All the scientists were asked careers based questions, with interest in their experiences at University and whether they enjoyed being geneticists.

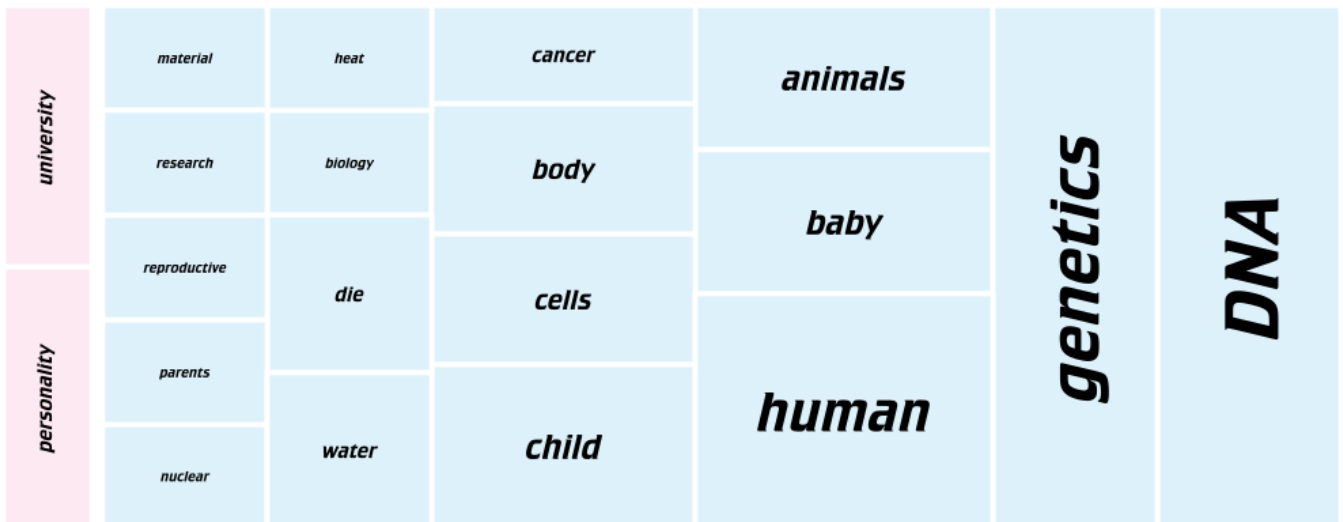


Keywords from live chats in the zone, size of the word represents its popularity



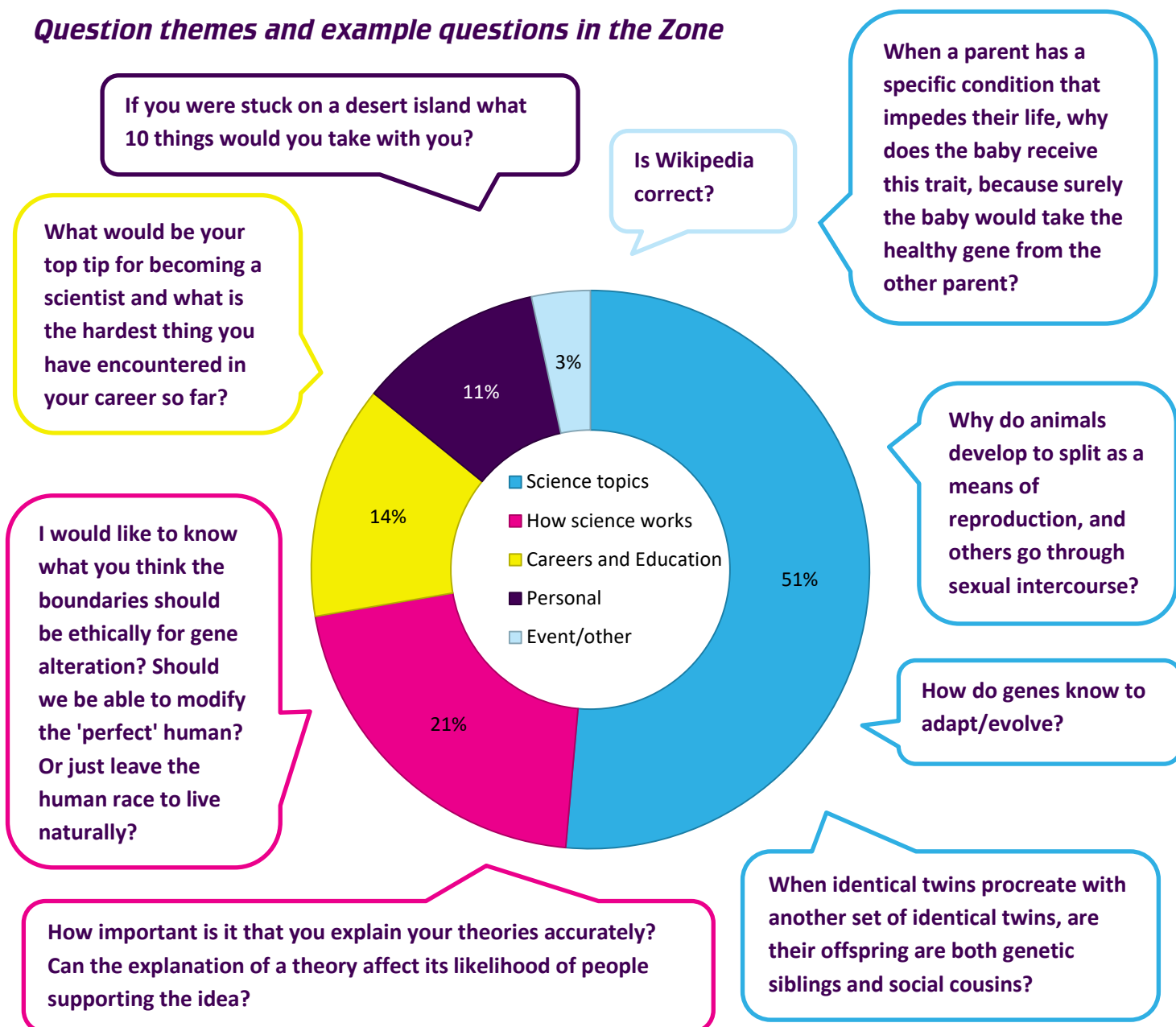
Top Keywords of questions approved in the Zone

Area represents frequency of use



■ Being a scientist ■ Science

Question themes and example questions in the Zone



Find out about how we've coded the questions at about.imascientist.org.uk/2017/student-question-coding

Examples of good engagement

There were great discussions in chats about the ethics behind different processes, such as genetic editing.

"do you believe genetic editing as a whole is unethical?" – Student

"No – but it depends what you are editing and why. There was a kid who had a skin condition (basically skin didn't attach to body properly, a deadly condition). Recently, they grew up some skin and edited it and then transplanted it to treat him - I think that's ethical." – Gemma, scientist

"Is IVF gene editing ethical?" – Student

"I think editing an embryo so that the baby doesn't have a devastating genetic condition is ethical" – Gemma, scientist

"Is screening for genetic disabilities ethical, would you do it for your children?" – Student

“These are very personal decisions. I did screen for some conditions when I was pregnant. Some conditions are devastating. I think we should always ask those with genetic diseases and their families as they are best placed to know what it is like to live with a condition. I don't think societal approaches are a good idea but we should preserve individual right to choose” – Gemma, scientist

Students were very interested in the scientists' individual research areas.

“Do you think experiencing seasonal depression has a great impact on sperm quality?” – Student

“Seasonal depression is definitely something to study carefully. However, antibiotics and some anti-depression drugs have impact on sperm production. Reproduction function is an optional function for the body.” – Stéphane, scientist

“do you think the general people are aware of this side effect?” – Student

“Mental health issues are common in Europe and I don't think we are enough aware about it. Anxiety is very prominent in students.” – Stéphane, scientist

Students showed a good awareness of mental health issues, especially when talking to David about his work.

“how does genetics influence depression?” – Student

“We are using big data, to see if the people with depression are more likely to carry certain genes” – David, scientist

“That's interesting i thought depression was solely caused by environmental factors” – Student

“Depression is caused by both genes and the environment. And sometimes it is certain genes that interact with certain environments that increase the risk of depression” – David, scientist

“Do u think people with depression are more likely to carry certain genes?” – Student

“Yes, people with depression are more likely to carry certain genes. I am currently trying to work out what these all are.” – David, scientist

Scientist winner: David Howard

David's plans for the prize money: *“I plan to use the money to encourage a wider range of school kids to consider a career in science. I will speak to a number of different people working in different areas in science (including journalists, technicians, public relations experts and coordinators) and produce a pack that provides more of the non-typical scientific careers to distribute to schools.”* Read David's **thank you message**.



Student winner: AnimalLover

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...

“The scientists involved initiated great conversations with the students which really helped them get involved” – Teacher

“I've learnt that scientists aren't all massive nerds and that they are very down to earth which I didn't expect” – Student