



Yang



Stephen



Shane



Karla



Emma

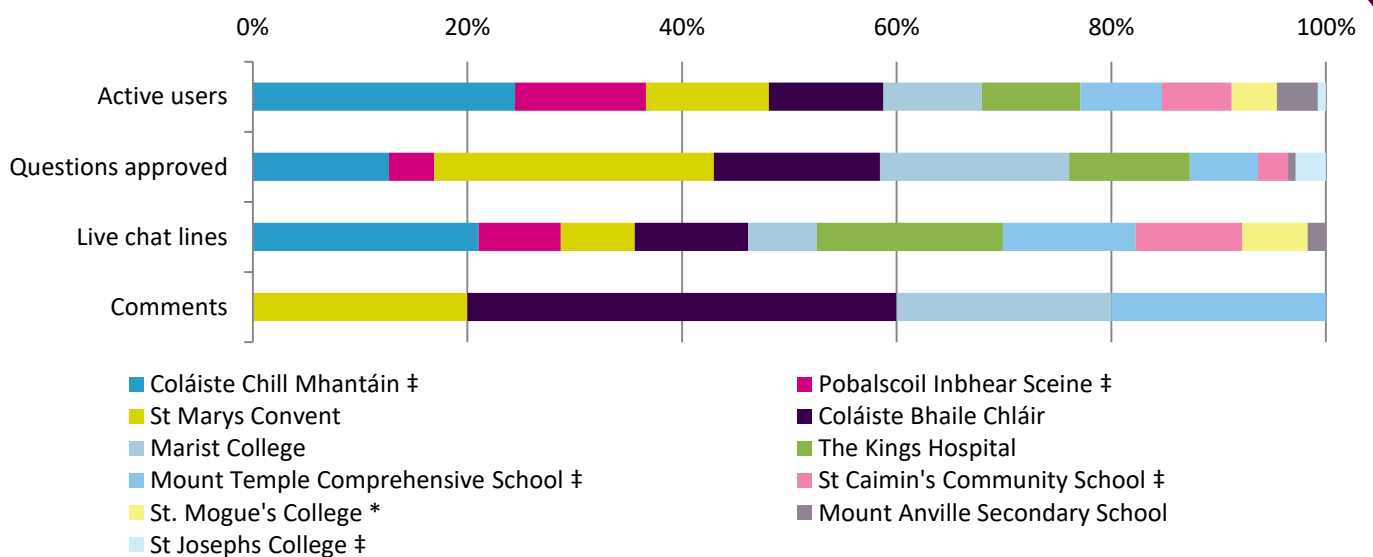


November 2017

The Energy Zone was a themed Zone funded by Science Foundation Ireland, with five scientists for students to meet. Yang is a PhD student studying combustion chemistry, Stephen is working with materials that can convert solar energy into fuel and Shane is researching ways to store more renewable energy from wind turbines and solar panels. Karla is a postdoctoral researcher trying to find ways to produce energy from organic wastes and biomass and Emma, who was the winner in the Energy Zone, uses computer simulations to find out what Ireland's energy system will look like in the future.

The Zone was largely on topic, with students asking about ways to save energy at home, as well as interest in different energy sources and the scientists' own research areas. This was the quietest Zone in November's I'm a Scientist event, with a lower than average number of questions from students in ASK, and a lower than average number of students logging in.

School data at a glance

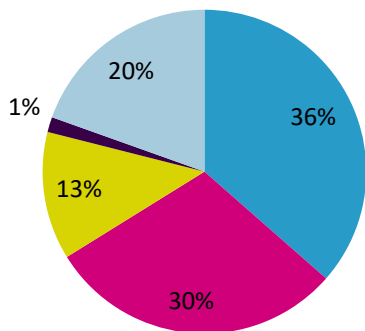


We want to increase the participation of under-represented groups going into STEM careers. Priority schools are noted above. Read more at about.imascientist.ie/2016/widening-participation/

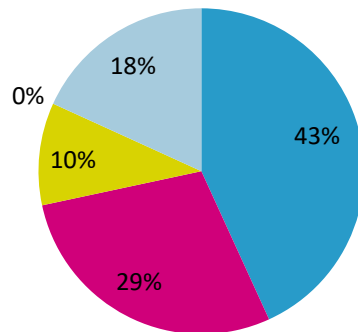
DEIS schools in SFI target counties (*), other DEIS schools (†), and other non-fee-paying schools in target counties (‡).

Scientist activity

Answers



Live chat lines



SCIENTIST	PROFILE VIEWS	POSITION
Emma Hanley	483	Winner
Stephen Rhatigan	513	2nd
Shane Mcdonagh	425	3rd
Yang Li	538	4th
Karla Dussan	304	5th

Key figures from the Energy Zone and the averages of the November zones

PAGE VIEWS	ENERGY ZONE	NOV '17 ZONES AVERAGE
Total zone	12,717	17,978
ASK page	1,008	1,807
CHAT page	1,114	1,306
VOTE page	1,459	1,696

	ENERGY ZONE	NOV '17 ZONES AVERAGE	IAS 2012-17 AVERAGE
Schools	11	12	11
Students logged in	293	385	369
% of students active in ASK, CHAT or VOTE	89%	90%	85%
Questions asked	310	640	593
Questions approved	138	255	262
Answers given	266	542	497
Comments	10	51	64
Votes	238	361	300
Live chats	13	17	16
Lines of live chat	2,888	4,469	4,136
Average lines per live chat	222	261	271

Popular topics

Lots of the questions in Ask and Live Chats were on topic and focussed around energy. Students wanted to know about different energy sources and how they can produce energy, asking about the differences between wind, solar and nuclear power. They were interested in how much energy different sources could produce such as how much solar energy we can produce in winter.

Students asked a lot about climate change about global warming. They wanted to know whether we would ever be able to reverse the effects of global warming and what changes it could cause to the environment. They also asked about ways they can conserve energy on a day to day basis at home.

Students and scientists bonded over sports and the teams they support, especially GAA.

Off topic, there was interest in space, black holes, space travel and the Milky Way.



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

energy

universe planet renewable fuel carbon world research physics future sun study heat school work time phd

Keywords with 'energy' left in

work

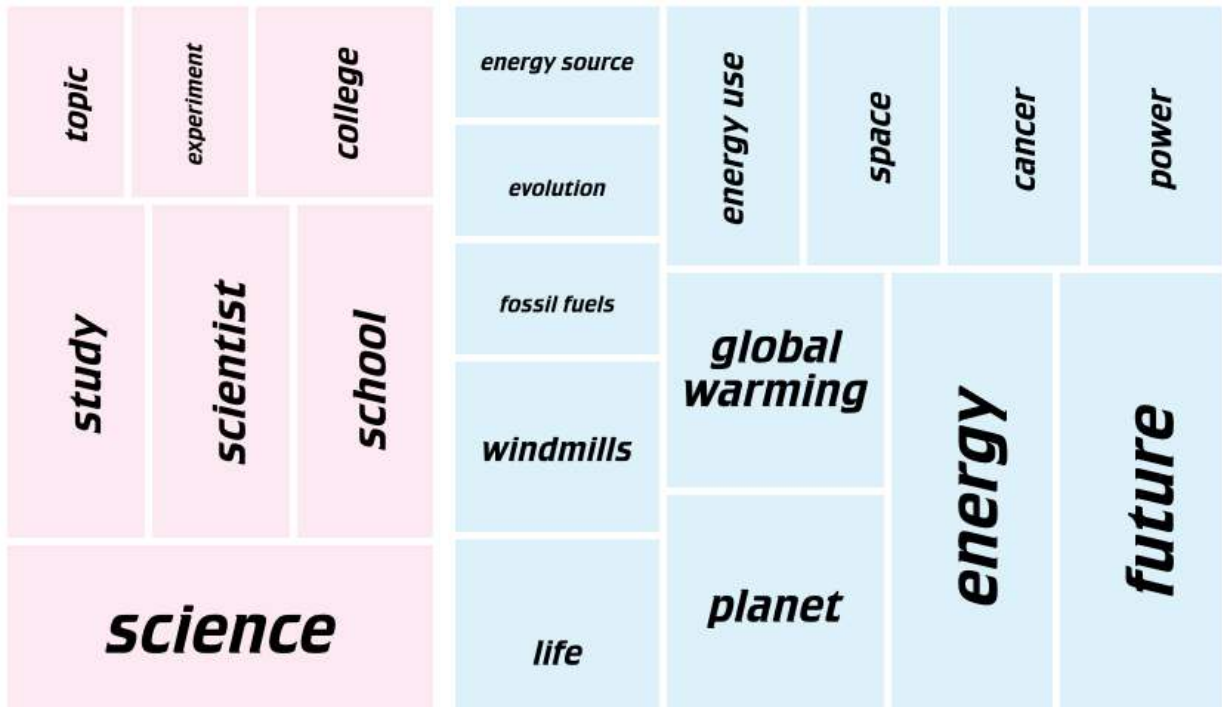
radiation biology future chemistry lab ireland phd study physics electricity heat experiment sports carbon travel college degree solar wind maths computer wind college research school time people nuclear renewable job space planet models fuel life world gravity

Keywords with 'energy' removed



Top Keywords of questions approved in the Zone

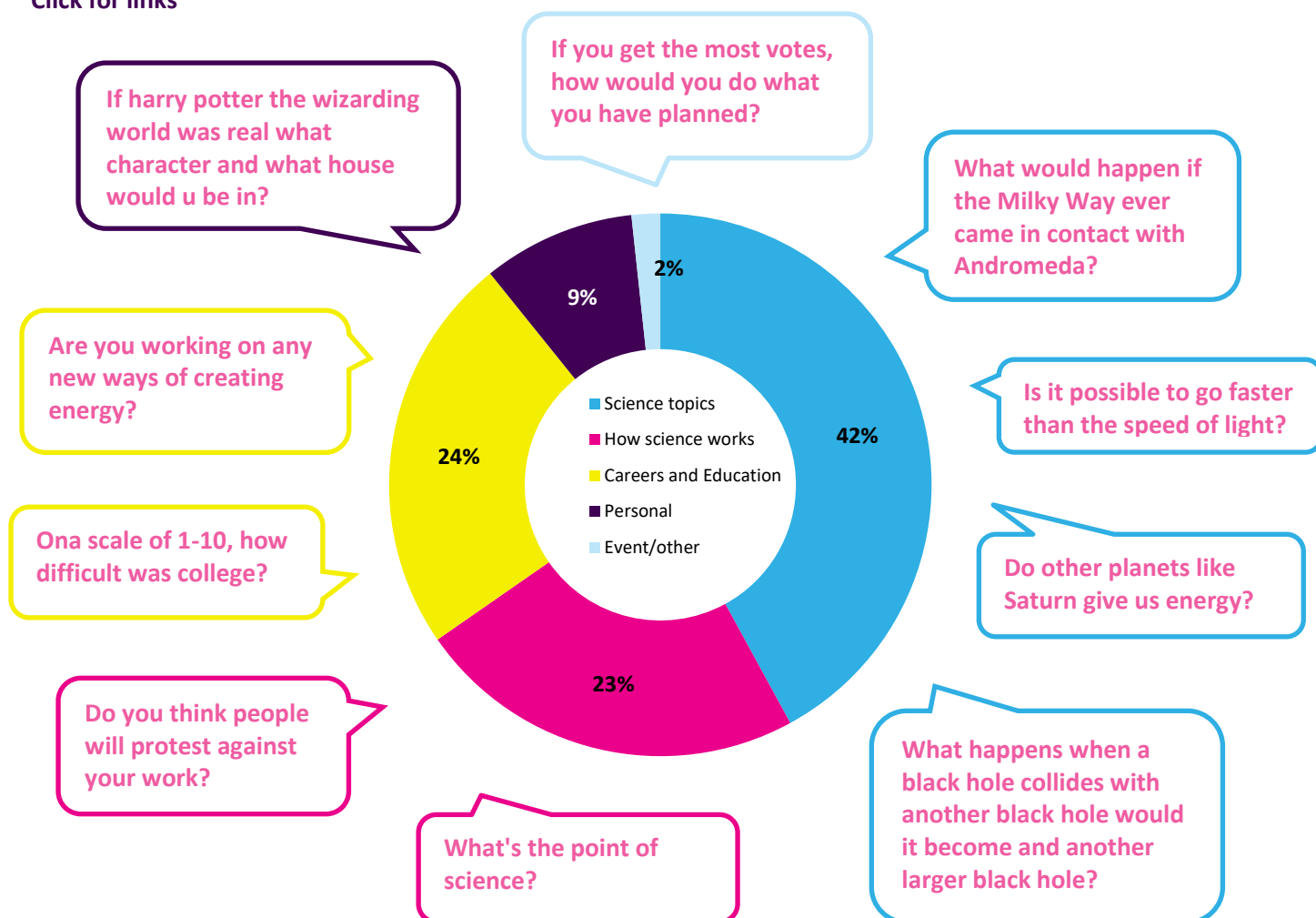
Area represents frequency of use



■ Being a Scientist ■ Science ■ Other

Question themes and example questions in the Zone

Click for links



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

Examples of good engagement

Within both ASK and the Live Chats, there was lots of interest in renewable energy:

"Is anyone working on inventing a new renewable source of energy right now?" – Student

"Myself not a new one, now, but in learning how to improve how we convert (not commonly used) waste materials into energy." – Karla, scientist

"I'm not working on a new renewable source... I'm working on improving an existing technology to convert a renewable source (sunlight) into a usable fuel." – Emma, scientist

"I'm working on taking a different technology and trying to use it to make renewable energy!" – Shane, scientist

Students were also interested in the scientists' individual research areas:

"How would you convert solar energy into fuel?" – Student

"I'd like to use photocatalysts... if I could find one that worked well enough." – Stephen, scientist

“What is a photocatalysts?” – Student

“The most famous photocatalyst is titanium dioxide.... it's what makes paint and toothpaste white. But it's not very efficient so I try to make it more efficient.” – Stephen, scientist

“How would you make it more efficient?” – Student

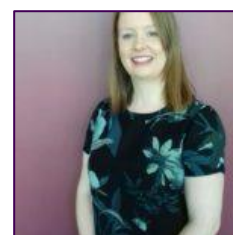
“I try to make it more efficient by changing its surface so that it absorbs more light.” – Stephen, scientist

“How do you change it's surface?” – Student

“I put tiny clusters of other materials on the surface.” – Stephen, scientist

Scientist winner: Emma Hanley

Emma's plans for the prize money: *“Regarding the research we complete in the Energy Policy and Modelling Group it is sometimes difficult to have displays regarding energy policy. One idea before at a group meeting was to get a 3D print of the Irish Energy system. The money could be used to hire a graphic designer and to try print different sections of the current and potential future energy system for public understanding.”* Read Emma's [thank you message](#).



Student winner: Roptyparty

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...

“There was a great buzz in the class, and great excitement.” – Teacher

“The questions were diverse and difficult to answer. Some of them made me really question myself as to the reason I became a scientist and what first sparked my interest in science.” – Emma, scientist