

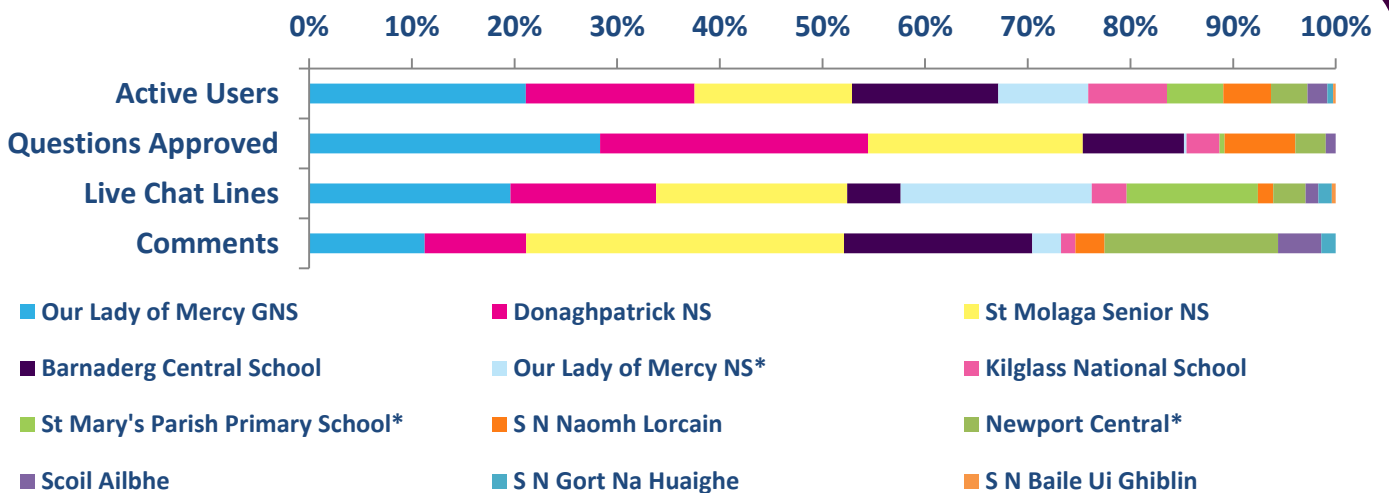


## November 2016

This was a themed zone specifically for primary schools, funded by Science Foundation Ireland. Stephen was the winner in this zone, and is a PhD student who uses lasers to create explosions, and then studies the light given off to find out which atoms it's made. Saoirse is an Optometrist researching short-sightedness so that fewer children will need to wear glasses and Pramod is trying to understand what super-fast lasers do on a very small scale. Moises is a PhD student studying electrons and protons and Dervil makes holograms which can be used for things like gas detection and solar power.

This was one of the busier zones in the event, with the highest amount of questions asked by students. There was also an above average amount of active students in the zone - 90% of students who had logged in engaged with the site. Stephen was extremely active during the event making up almost half of all activity from scientists.

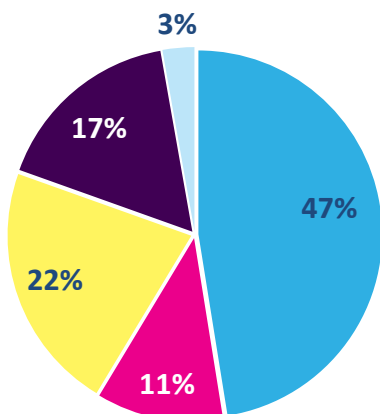
### School data at a glance



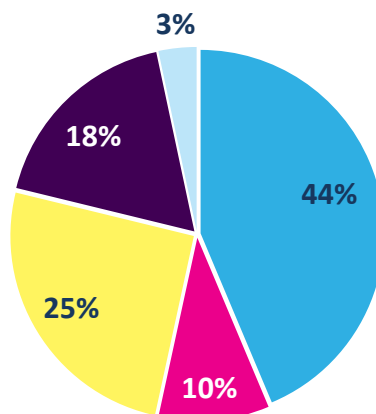
\* Widening participation schools, as defined at <http://about.imascientist.ie/widening-participation/>

### Scientist activity

#### Answers



#### Lines of Live Chat



Scientist	Profile views	Position
Stephen Davitt	846	Winner
Saoirse McCrann	696	2nd
Dervil Cody	483	3rd
Moises Jezzini	384	4th
Pramod Kumar	410	5th

## Key figures from the Light Zone and the averages of the November zones

PAGE VIEWS	LIGHT ZONE	NOV '16 ZONES AVERAGE
Total zone	19,099	18,646
ASK page	2,429	1,758
CHAT page	1,466	1,587
VOTE page	1,967	1,396

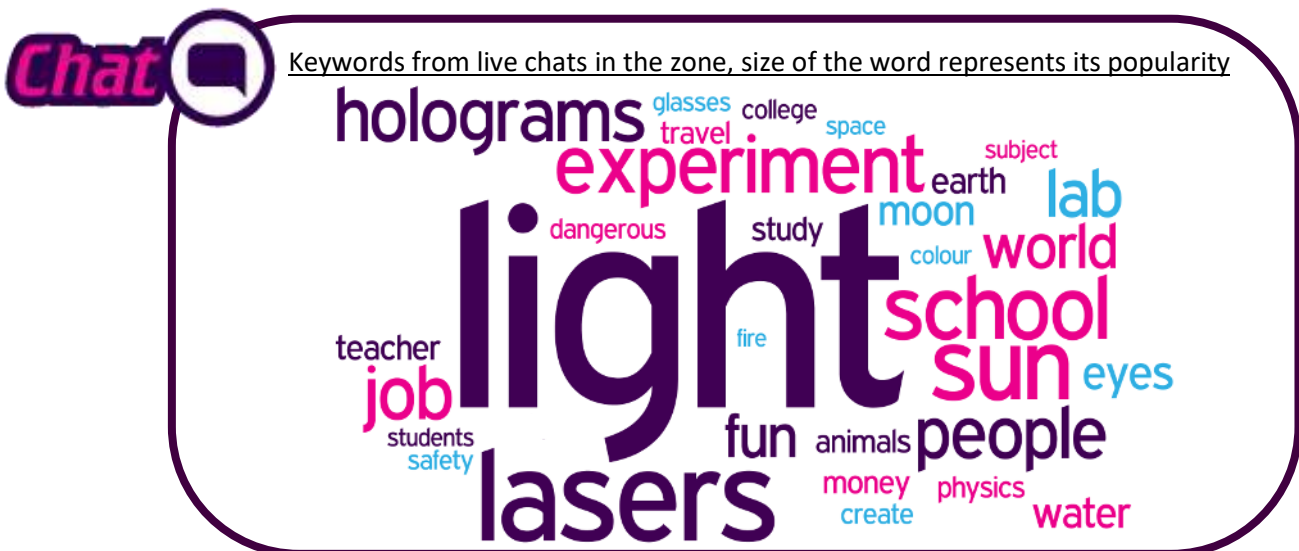
	LIGHT ZONE	NOV '16 ZONES AVERAGE	IAS IRELAND 2012-16 AVERAGE
Schools	12	9	10
Students logged in	404	400	366
% of students active in ASK, CHAT or VOTE	90%	83%	84%
Questions asked	919	656	584
Questions approved	406	305	264
Answers given	394	462	488
Comments	75	75	66
Votes	445	311	288
Live chats	18	15	15
Lines of live chat	4,800	4,501	4,070
Average lines per live chat	267	292	273

### Popular topics

Students were able to connect easily with the work of some of the scientists, especially Stephen and Saoirse. Lasers was a really popular topic and students wanted to know what the capabilities of lasers are, as well as the safety precautions Stephen needs to take when working. Saoirse was asked a lot about the eye and how it works to let us see, and why some people's eyes don't work as well. There were also questions for Dervil about holograms, whether you can touch them and how they can be used to identify gas, for example.

Whilst Pramod and Moises' research was more complicated, they were able to engage with the students through more general physics questions about light. Students asked how light can travel so quickly, how bright the sun is, what stars are and how we can make energy from light. There were many more general questions about space, including lots of interest in black holes, gravity and the moon.

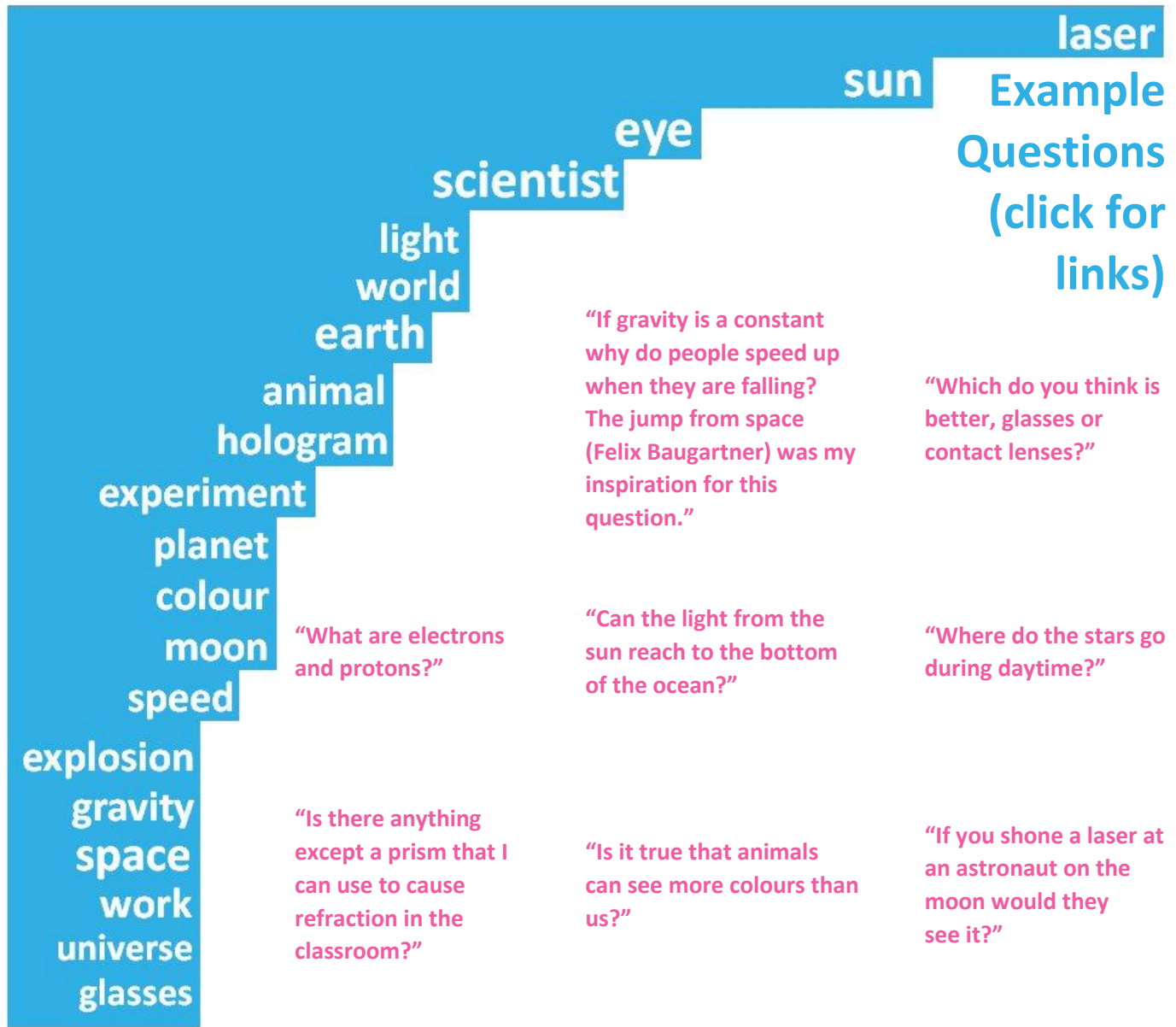
Students enjoyed discussing different experiments with the scientists; asking them about their favourite experiments, whether anything ever goes wrong, and talking about experiments they had done in school.





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

0 5 10 15 20 25 30



Example Questions (click for links)

"If gravity is a constant why do people speed up when they are falling? The jump from space (Felix Baugartner) was my inspiration for this question."

"Which do you think is better, glasses or contact lenses?"

"What are electrons and protons?"

"Can the light from the sun reach to the bottom of the ocean?"

"Where do the stars go during daytime?"

"Is there anything except a prism that I can use to cause refraction in the classroom?"

"Is it true that animals can see more colours than us?"

"If you shone a laser at an astronaut on the moon would they see it?"

"Why do plants need light to grow?"

"Can the lasers you work with damage a living organism?"

"How can a hologram tell if there are poisonous gases in the atmosphere?"

"How many light bulbs would you need to be as bright as the sun?"

"Would it be brighter if there were two suns?"

"How long does it take to do an experiment?"

"How does the eye focus on things that are far away, like the board at school?"

"Can looking at a screen for too long affect a person's eyesight?"

## Examples of good engagement

The event took place during Science Week in Ireland, and students were able to connect with the scientists through the experiments they had done that week, such as in this exchange with Stephen:

*“Can you tell us about a favourite experiment you have done?” – Student*

*“I also volunteer with a group called Physics Busking which shows science to people, in this I do a set of experiments about rockets. That’s my favourite experiment - to launch water rockets” – Stephen, scientist*

*“We did just launched water rockets yesterday with Declan Holmes from Science Ireland. Our best rocket flight time was 5.36 seconds!” – Student*

*“Nice did you add fins and a nose cone to the rocket too?” – Stephen, scientist*

*“We had to design them and figure out the best place to put the fins. We had a tennis ball stuck on top ---- but not sure why?!” – Student*

The scientists also broke down stereotypes in science, such as reassuring science is for girls as well as boys.

*“Is there many women doing science as boys do?” – Student*

*“Yes there are LOADS of women in science! In my physics research group, there are nearly twice as many women as men in fact!” – Dervil, scientist*

*“Sorry I just thought more men are into science than women. That’s good because I like science!” – Student*

## Scientist winner: Stephen Davitt

Stephen’s plans for the prize money: *“One of the best manipulation of light is 3D movies, I would like to create a demo kit that shows this fascinating manipulation of light we use to create 3D movies.”* Read Stephen’s [thank you message](#).



## Student winner: SectumSarzzies

For great engagement during the event, this student will receive a gift voucher and 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 children here refused to leave until the result was announced!! And what a commotion when the winner’s name came up - worse than X Factor....Great to see children so excited about Science.” – Teacher*

*“Rather than TELLING students about science, [I’m a Scientist] was the student centered approach which has the students ASK about science, this allowed them to engage in what they wanted to know and it really is unique in that way” – Scientist*