

November 2019

The Food Zone was a themed zone supported by Science Foundation Ireland. There were six scientists taking part in the zone:

- Min Yap is researching how bacteria grows and interacts in the dairy production environment.
- Marcello Valente is a PhD student developing a sensor to detect dangerous mutation in living organisms.
- Katie Starsmore is a technician researching how much methane gas cows burp, and how we can reduce this.
- Dheeraj Rathore is working on improving crops to suit changing climates and fight disease.
- Israel Ikoyi looks at microbes in the soil to understand how they can help plants grow better, and how farmers can create the conditions for them to do so.
- Aoife McHugh is looking at microbes that can survive dairy processing, from milk collected on the farm through processing to dairy powder.

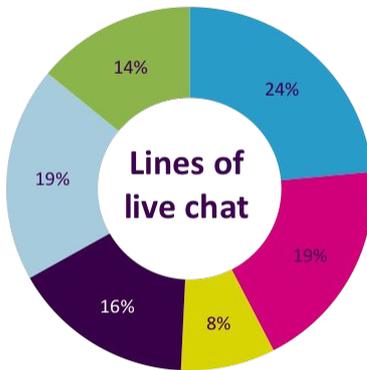
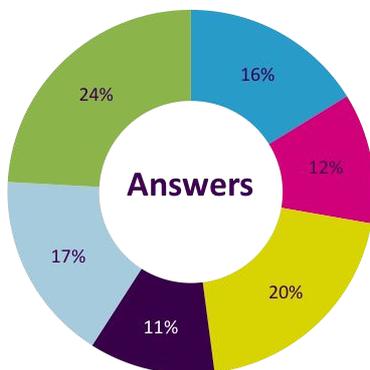
Key figures

A much higher than average number of questions in ASK were on Science Topics - possibly because the zone theme is one students can very easily relate to. Students had lots of questions about food, farming and production.

The scientists in this zone were all active throughout the two weeks, resulting in a good rapport between them, as well as between scientists and students.

	FOOD ZONE	NOV '19 ZONES AVERAGE	2012-19 ZONES AVERAGE
Schools	9	11	11
Students logged in	273	367	372
% of students active in ASK, CHAT, VOTE, or comments	86%	87%	86%
Questions asked	540	851	692
Questions approved	274	384	303
Answers given	630	529	511
Comments	56	69	67
Votes	226	281	304
Live chats	13	17	16
Lines of live chat	3834	5092	4359
Average lines per chat	294	293	271

Scientist activity



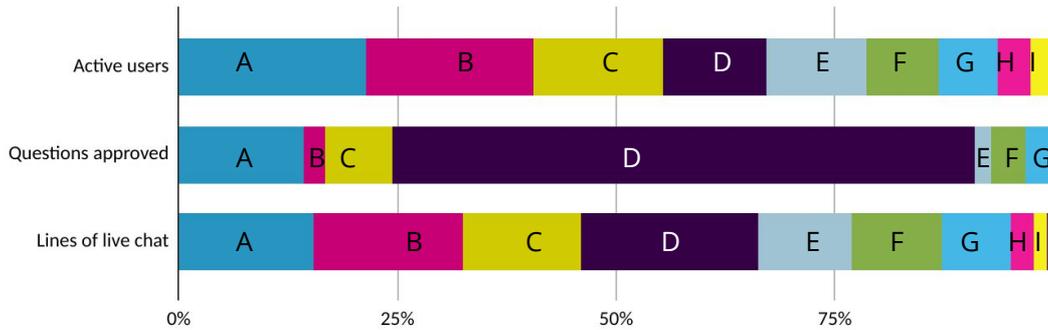
SCIENTISTS

PLACE

- Katie Starsmore
- Israel Ikoyi
- Marcelo Valente
- Dheeraj Rathore
- Min Yap
- Aoife McHugh

- 1st
- 2nd
- 3rd
- 4th
- 5th
- 6th

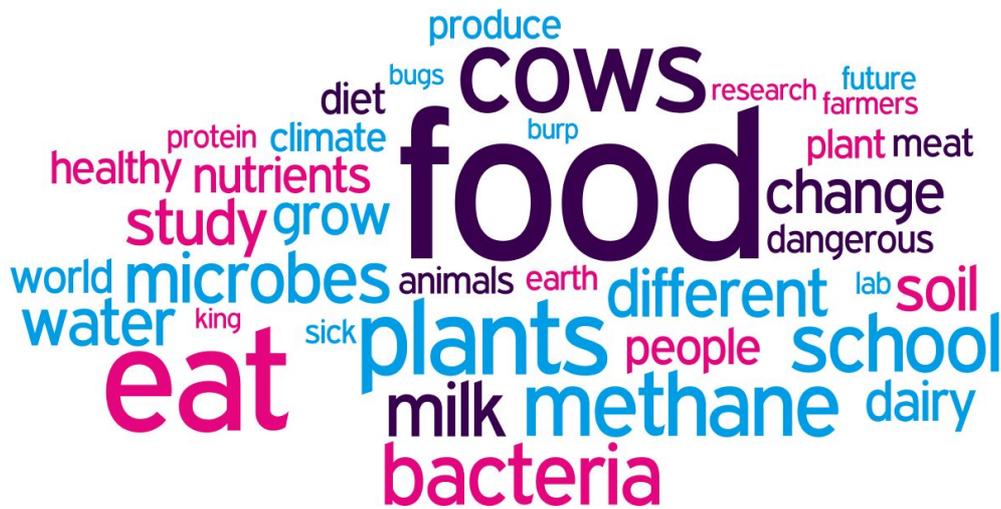
School activity



	YEAR GROUP(S)	CLASSES
A Árd scoil Uí Urmoltaigh, Cork	1st Year	2
B Loreto Community School, Donegal (DEIS/U)	Transition Year	2
C Scoil Chaitriona, Dublin (U)	1st and 2nd Year	2
D John Paul II NS, Dublin (U)	5th Class	1
E Inver College, Monaghan (DEIS/U)	2nd Year	2
F St. Brendan's Community School, Offaly	Transition Year	1
G Drumshanbo Vocational School, Leitrim (U)	2nd, 3rd & 5th Year	3
H Gaelscoil Na Cruaiche, Mayo	3rd & 6th Class	2
I Tallaght Community School, Dublin (DEIS/U)	Transition Year	2

We try to reach schools that are less likely to receive visits and benefit from other engagement activities. Find out what we mean by under-served SFI target schools (U) and Delivering Equality of Opportunity in Schools (DEIS), and how you can support us in working with these at about.imascientist.ie/2016/widening-participation

Frequent words used in live chats by students and scientists



Question analysis



Why did you start working with cows?

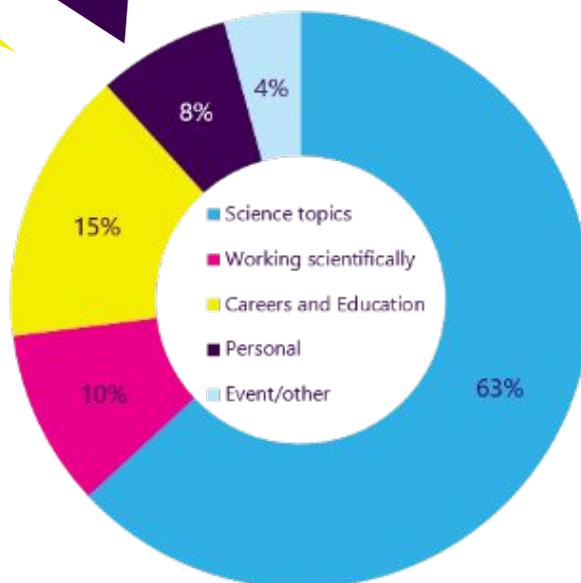
If you had to eat one food for the rest of your life what would it be?

Why is some mould good for you, but some bad for you?

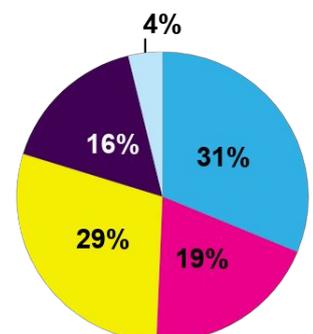
I would love to be a scientist! Any tips?

How do foods get their tastes? How are they bitter and sweet?

How do you use animals for different types of experiments?



Why is milk pasteurised and homogenised before it is put on supermarket shelves, when most people used to drink raw milk?



Historic Per-Zone Average (Themed Zones)

Examples of good engagement

Students asked questions that developed their understanding of the science behind everyday things relating to food, like how to increase its shelf life. This helps them see science as something that is relevant to everyday life and builds on their Science Capital:

"How do you make food like biscuits last in supermarkets?" – Student

"What makes food like biscuits last in supermarkets probably is the ingredients. There are certain ingredients added that can help extend the shelf life of foods, allowing them to be kept longer. Also biscuits are relatively dry and bacteria would grow more easily on foods with a higher water content." Min, Scientist

"Are those ingredients bad for you?" - Student

"No, they are safe to eat, they just help make sure foods can be kept longer." - Min, Scientist

This interaction between a student and scientist shows that scientists are "normal people" who sometimes struggle and have to try again. Katie was really honest about her career path:

"Katie when u didn't get accepted into the vets course, did u know that's what u wanted to do or did u decide OK well I didn't get this so I need to start thinking?" – Student

"I always knew I wanted to work with dairy cows and a Vet was the best thing I could think of. I also thought of being a dairy farmer before a vet, but I wanted to help people as well. So I started my Bachelor of Science in between trying to get accepted into Vet school for two years. After 2 years of trying to get into vet school I had to seriously think what i wanted to do.

I'm actually glad I didn't get into vet school now because I love my job. And I one day want to take what I am learning at the moment back to NZ and set up my own business to help farmers understand what methane is and how to reduce it on their farm.

So i guess i did have to think about what i wanted to do after not making it into vet school, but I knew the area i wanted to work in so it all fell into place eventually!" Katie, Scientist



Scientist winner: **Katie Starsmore**

Katie's plans for the prize money: *"I would spend the €500 on an anatomy cow. This is a cow that is 1/6 scale of a real cow and it shows all of the organs and muscles and bones in a cow. This would be extremely useful when explaining the natural processes that occur when a cow eats graze or when a cow walks, or even how milk is produced. I think this would be an awesome opportunity for school children to be able to visually see what they are being taught."*

Read Katie's **thank you message**

Student winner: **race44bat**

As the student winner, race44bat 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 November's *I'm a Scientist*...

I think it will have made a difference in smashing the stereotypes of scientists and, in doing so, will make science more accessible. I love the fact the students can ask whatever they want too. The caliber of scientists that took part was incredible! Everyone in my zone had amazing communication skills and it was great to see how into it everyone got!
— Scientist

[We took part] for the first time this year. The students THOROUGHLY enjoyed it and wanted me to thank the organisers of such a successful event. It was extremely easy from the teachers point of view and during our live chats yesterday and today, the students were so amazed at getting their answers back immediately. It was great fun! Many thanks and we look forward to joining up again next year!
— Teacher

[The students] have really enjoyed their time on I'm a Scientist and are spending their Friday afternoon making posters about all they have learned. They now LOVE science!!! They are still interested in so many answers coming their way!
— Teacher

thank you for coming on and answering lots of questions! i've enjoyed taking part in i'm a scientist get me out of here! thank you very much :)
— Student