September-October 2020

The Yellow Zone ran from the 28th September - 23rd October. This Zone was the second of the *I'm a Scientist:* On Demand zones, which were created to allow schools to have flexibility in when, and how, they took part. The Yellow Zone was a general zone, supported by the Wellcome Trust and the Science & Technology Facilities Council (STFC).

- 32 scientists created profiles in the Zone. 27 engaged with students in live chats and Ask.
- Scientists from a broad range of fields and career stages took part. For example, Ranjini Swaminathan is a research science solving climate problems at the University of Reading, Will Davison is a PhD student in Sustainable Aquaculture at the University of Exeter, and Gaby Mayorga Adame is an coastal ocean modeller at the National Oceanography Centre.
- 65 live chats took place took place during the activity. On average, 3 researchers attended each live chat session.
- 187 posted questions were approved and sent to the researchers who responded with 326 answers.
- 875 students from 28 schools all over the UK logged into the Zone. 11 of these schools had taken part in a previous *I'm a Scientist* activity.
- 212 of active students were from widening participation schools, and 317 from underserved schools

	Yellow Zone
Schools	28
Students logged in	875
% of students active	88
Questions asked	311
Questions approved	187
Answers given	326
Scientist comments	23
Student comments	6
Votes	578
Live chats	65
Lines of live chat	14,454
Average lines per chat	222

Key activity figures

The Yellow Zone was the second zone in *I'm a Scientist:* On Demand. This Zone was busier than the Blue Zone, with more live chats, questions in Ask, and schools involved.

In order to cope with the increased demand, the chat capacity was increased, allowing more chats to be booked. 85% of the scientists who created profiles engaged with the students.

School activity

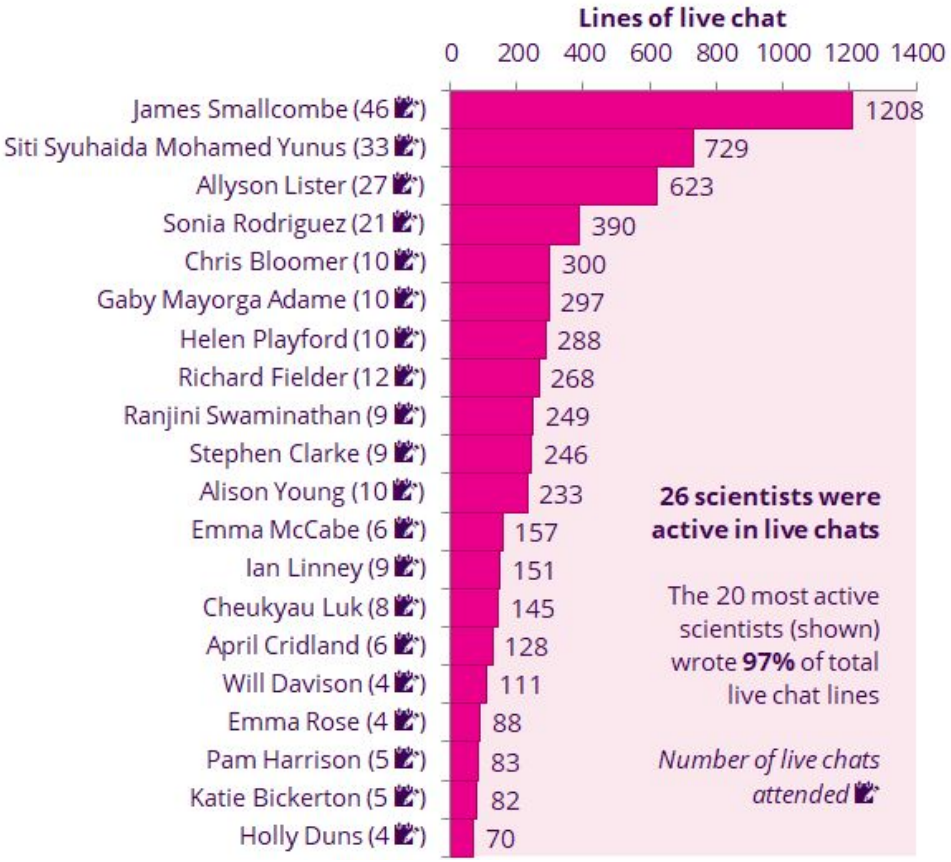
School	Active users	Lines of live chat		Questions approved
		Total	Per user	
Beaulieu Convent School, Jersey (U)	89	1069	12	12
Dinglewell Junior School, Gloucester (U)	75	517	7	3
Abbey Gate College, Chester	70	514	7	0
St Bridget's Primary School, Glasgow City (WP)	52	660	13	6
Lark Rise Academy, Dunstable (U)	45	700	16	0
Fosse Way School, Bath (WP)	42	318	8	45
The Derby High School, Bury (WP)	35	579	17	2
Coltness High School, North Lanarkshire (WP)	34	734	22	51
Stewart Fleming Primary School, London	34	298	9	11
East Sussex College Group, Eastbourne (U)	33	140	4	1
Meden School, Mansfield (WP/U)	30	351	12	0
Vale of York Academy, York	26	241	9	2
Streatham Wells Primary School, London	24	322	13	3
Theale Green School, Reading	23	163	7	0
Bredon School, Tewkesbury	23	239	10	3
South Wilts Grammar School for Girls, Salisbury (U)	20	163	8	0
Berkshire College of Agriculture, Maidenhead	20	287	14	1
Crown Lane Primary School, Streatham	18	213	12	2
Chard School, Chard	15	238	16	5
MidKent College, Gillingham (U)	13	53	4	8
Franklin College, Grimsby (U)	11	66	6	0
Rampton Primary School, Retford	11	178	16	21
Ethos College, Dewsbury (WP)	10	122	12	0
Science Boost CIC, Frome	9	115	13	9
Kenmont Primary School, London (WP)	5	82	16	2
Alexandra Park Primary School, Stockport (WP)	2	41	21	0
Sandymoor, Runcorn (WP/U)	1	27	27	0
Harris Girls' Academy East Dulwich, London (WP)	1	35	35	0

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/

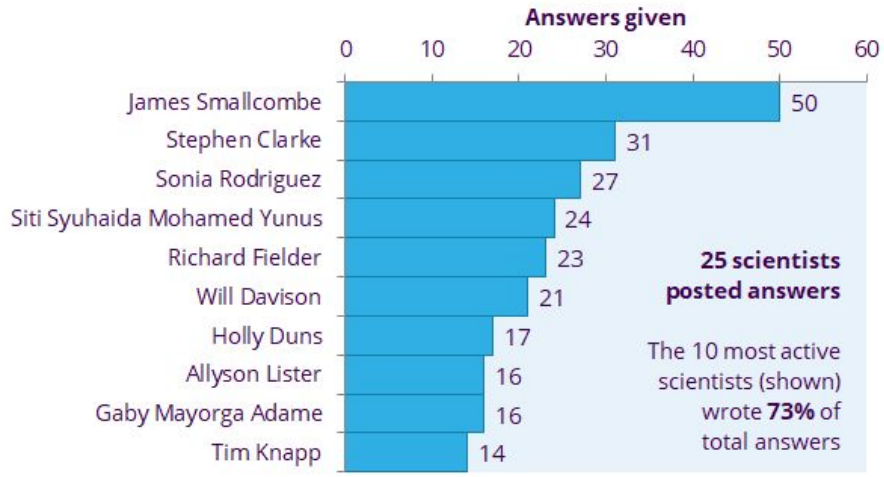
Scientist activity

27 scientists were active in the zone, writing 14,454 lines of live chat, and providing 326 answers to posted questions.

20 most active scientists in live chats



10 most active scientists in posted answers



See all the participating scientists: **https://yellow20.imascientist.org.uk/scientists/**

Popular topics

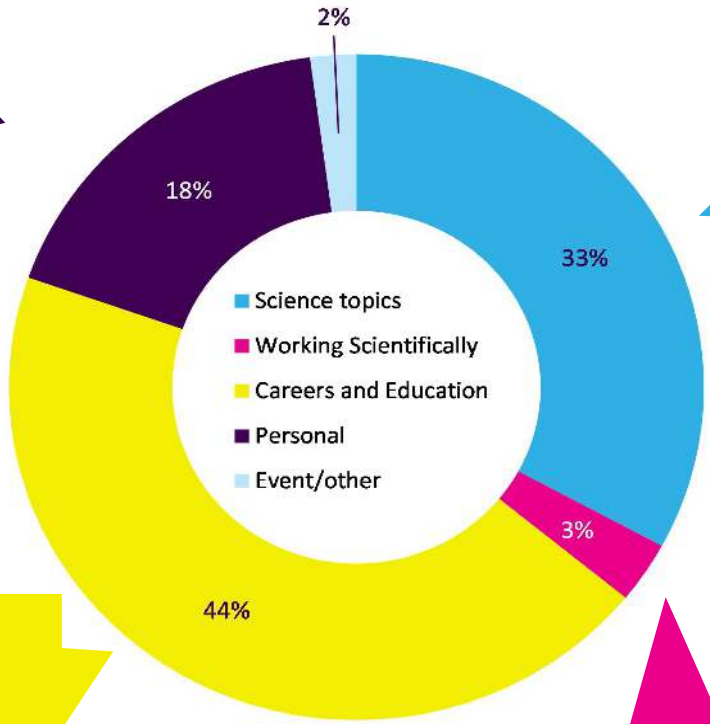
Frequent words used in live chats by students and scientists

Question themes and example questions

What do you like to do when you are not working on research?

Were your Phd studies hard?

I want to have a career in paleontology but I want to keep my options open, what courses would you recommend?



Do you favour more scientific theory or facts?

What advances do you think need to be made in pharmaceuticals within the next 10-20 years?

How reliable is your work/data and how do you know this?

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Examples of good engagement

Live chats were full of diverse conversations regarding the scientists different fields, but nuclear physics and the concept of different shaped nuclei inspired a lot of interest from students.

shannon @NuclearJames: why did you choose selenium and what are the properties?

NuclearJames @shannon: We chose selenium because the physics lead us there, we were looking at all different elements and trying to find the ones that didnt make sense.

shannon @NuclearJames: what sort of properties were u looking for in these elements?

NuclearJames @shannon: I study a thing called shape coexistence. Which means being 2 shapes at the same time, its a weird effect of quantum mechanics. It seems selenium can be both m&m shape and rugby ball shaped at the same time.

shannon @NuclearJames: thats interesting :)

NuclearJames @shannon: interesting and a bit confusing, like a lot of science is before it's solved

shannon @NuclearJames: do they have different properties depending on their shape?

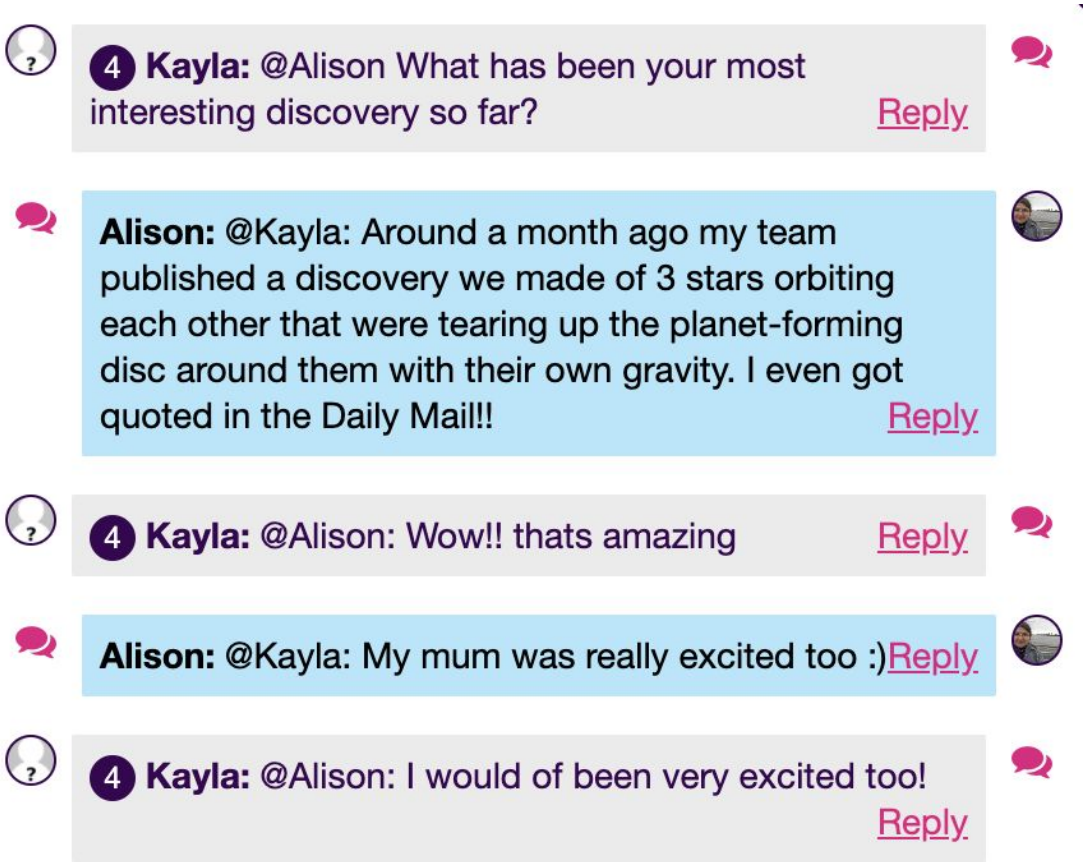
NuclearJames @shannon: Yes. In the most extreme cases it can make nuclear fusion or fission easier (if the nucleus is already stretched its easier for it to break in 2). And the shape changes how easily they spin, which is a big way they hold on to energy

shannon @NuclearJames: which shape holds energy more effectivly?

NuclearJames @shannon: The really stretched long ones spin the best, so rugby ball shape "prolate"

shannon @NuclearJames: thats cool

Students also frequently asked the scientists about any discoveries they may have made so far. Scientists discussed not only how exciting these discoveries are for them, but for their families too.



Scientists of the Week

Students voted each week for their favourite scientist to be named *Scientist of the Week*.

The 4 *Scientists of the Week* were **James Smallcombe, Will Davison**, **Siti Syuhaida Mohamed Yunus,** and **Chris Bloomer**. The overall winner in this zone was **James Smallcombe.**




Feedback from the Yellow Zone

"This has been an invaluable experience for our students."

Teacher

"This is a great tool to get the students motivated. Thank you all for your time, we appreciate it so much!"

Teacher

" I think it was also useful for students to ask questions about how we go to where we are, and other work life balance things to give them a fuller view of what these careers can be. I know I would have been grateful for this when in school."

Ranjini Swaminathan, IASUK scientist.

"Our children absolutely loved the live chat!"

Teacher

"This was funnier than I thought it was going to be."

Student

"I do sessions in schools, unis and colleges and think this format is awesome - just the ability to interact with so many students and let them ask what they want."

Stephen Clarke, IASUK scientist.

"Can't believe we just spoke to real scientists!"

Student

"I have taken part with classes for years. It is such a great way for our students to discover career paths and realise that there are many routes to a scientific creer with people often diversifying along the way"

Teacher

"I am so glad to have experienced the chaos of an excited primary school class. 10/10 would recommend."

Helen Playford, IASUK scientist