



March 2022

The Healthy World Zone (healthyworld22.imascientist.org.uk) ran from 7 March to 1 April and was funded by **Johnson Matthey's Science and Me programme** and featured STEM professionals working towards keeping our minds, bodies and communities well.

Towards the end of the Zone, schools experienced staff shortages due to doubling numbers of Covid-19 cases. This caused disruption to the activity and a high number of unattended Chats.

Key activity figures

	Zone	March 2022 average
Schools	31	26
Students logged in	1,344	1,040
Students active	70%	73%
Scientists	43	33
Questions asked	537	377
Questions approved	164	123
Questions duplicated	272	202
Answers given	473	413
Live Chats requested	80	74
Live Chats taken place	58	50
Lines of live Chat	20,214	14,284
Average lines per live Chat	349	318
Votes cast	511	359

Scientists

43 scientists created a profile in the Zone.

You can see who took part at healthyworld22.imascientist.org.uk/scientists

The winning scientist with the most votes from students was **Gareth Nye**, Programme lead for Medical Science and lecturer at University of Chester.

Students

1,344 students from 31 schools across the UK logged into the Zone.

76% of active students were from priority schools: 41% from underserved schools and 51% from widening participation schools.

Live Chats

80 live Chats were requested throughout the Zone with an additional 4 evening Chats available to all students.

58 live Chats took place. 56 of which were booked by teachers and 2 were evening Chats.

Out of the remaining live Chats, 14 were cancelled and in 10 the school did not attend and did not give notice.

There were 5 live Chats where teachers asked questions on behalf of their students. It is also common for students to share login details or computers during live Chats. Therefore, the number of students reached will be higher.









School activity

Students from 31 schools across the UK participated in the Zone. In addition to live Chats booked by teachers, there were 4 evening Chats available for the students and their families.

School	Active users	Chats attended	Chat lines (total)	Chat lines (per user)	Questions approved	Votes
Sir Herbert Leon Academy, Milton Keynes (WP)	88	5	1,102	13	4	21
Furness Academy, Barrow-in-Furness (WP/U)	86	6	764	9	5	66
Abbots Langley School, Hertfordshire (U)	75	3	1,577	21	2	69
Cowley Hill School, Borehamwood (WP)	65	3	896	14	30	41
St Bridget's Primary School & Nursery Class, Glasgow City (WP)	58	2	743	13	0	39
Yavneh College, Borehamwood	57	2	299	5	4	10
Llanyrafon Primary School, Torfaen (U)	54	2	666	12	1	34
Clevedon School, Clevedon	53	2	554	11	17	53
Whitehall Junior School, Middlesex (WP/U)	47	2	709	15	2	9
Alexandra Park Primary School, Stockport (WP)	47	3	1,011	22	5	32
Litcham School, King's Lynn (U)	43	2	656	15	0	40
Loreto Grammar School, Altrincham	42	2	738	18	7	15
St Dominic's High School, Belfast (WP)	35	2	586	17	5	17
John Flamsteed Community School, Ripley (U)	34	2	241	7	15	19
City of London Academy, Highgate Hill, London	29	1	187	6	3	20
Ridgeway Academy, Welwyn Garden City (WP/U)	24	0	0	0	18	9
Halstow Primary School, Greenwich	19	1	183	10	1	1
Prendergast Vale School, London (WP)	19	1	164	9	4	4
St John Wall Catholic School, Birmingham (WP)	18	0	0	0	20	3
MidKent College, Gillingham (U)	17	1	138	8	13	2
The Cardinal Vaughan Memorial RC School, London	17	1	398	23	1	0
Kingsdown School, Swindon (U)	14	1	112	8	0	0
Darrick Wood Junior School, Orpington	7	1	5	1	5	1









Potters Bar Clinic School, Potters Bar ¹	5	1	35	7	0	2
Barrhead High School, East Renfrewshire* (WP)	4	6	127	32	0	0
Blackburn Central High School, Blackburn (WP)	4	0	0	0	1	3
Highdown School and Sixth Form Centre, Reading	4	0	0	0	1	1
Westquarter Primary School, Falkirk* (WP)	2	2	34	17	0	0
St Ignatius Catholic Primary School, Sunbury on Thames*	1	1	76	76	0	0
Reading Girls' School, Reading* (WP)	1	1	27	27	0	0
The Academy at Shotton Hall, Peterlee* (WP)	1	1	43	43	0	0

^{*} In these chats teachers typed questions on behalf of their students, with the chat displayed on a screen.

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

¹ Special educational needs school



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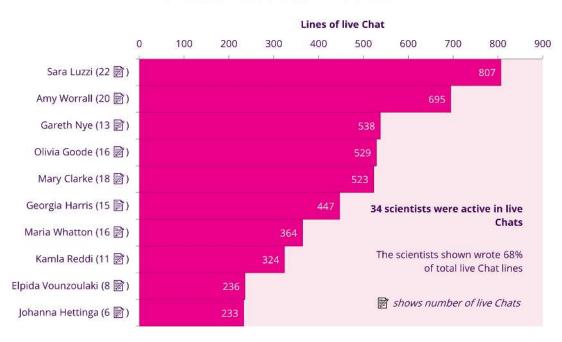




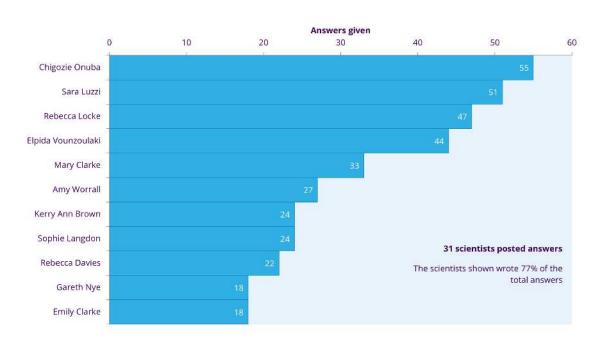
Scientist activity

During the Zone the scientists interacted with students by writing 6,882 lines of live Chat, and providing 473 answers to 164 posted questions. On average, 3 scientists attended each live Chat.

10 most active scientists in live Chats



10 most active scientists in posting answers





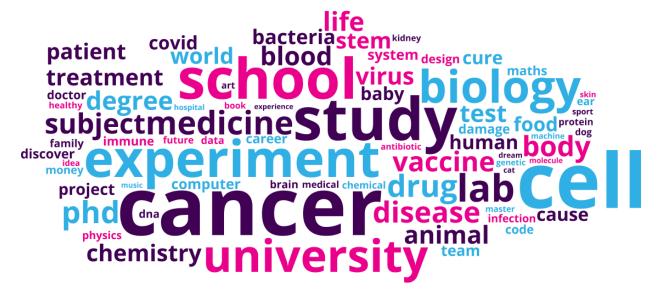






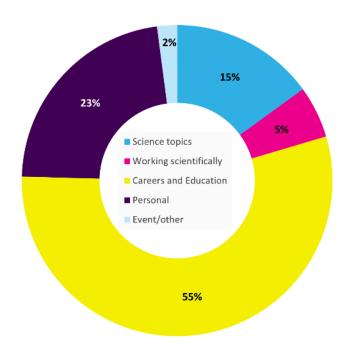
Live Chats

The word cloud below demonstrates what students and scientists talked about in live Chats. The bigger the word, the more frequently it was used.



Questions in Ask section

The chart below shows an analysis of questions students sent to the scientists. Questions are coded into overarching categories. The examples are coloured by category.



If water is transparent and clouds are made of water why are they not transparent?

How does poison affect the body and its cells?

How do you test your painless vaccines?

Has anyone ever successfully grown skin to use in a skin graft or is it all still in trials?

What are the best subjects to take for GCSE if I want to be a marine biologist?

If you weren't a scientist what would you be and why?

What made you want to pursue this career and have there been any moments you've wanted to give up?

If you had a superpower what would it be?









Good engagement

Getting their questions answered and being able to see how science relates to their everyday lives and interests is a great way for students to support their science capital and makes them more likely to see science as something 'for them'.

Student 1: How can you keep fit and healthy while still eating your favourite foods?

Elpida (scientist): That's a very interesting question! You can still eat your favourite foods as long as you are careful. Eating fruit and vegetables is very important, eating protein (found in meat, eggs, beans, lentils) and doing some exercise.

Student 1: That's good to know! Thank you.

Student 1: How do you think Toby Maguire's Spiderman's web shooters work?

Lauren (scientist): Well, he makes the webs in his body right? He must create special proteins which form a web substance, and I would guess that he developed special muscles in his forearms that can shoot the web very quickly when he contracts them.

Information and advice about scientists' careers can show students the range of possibilities for working in science and what they need to do to get there.

Student 1: How would you recommend someone in secondary school to start looking into science as a career?

Katie (scientist): Choose the right subjects, stay focused and work hard. Know that if one route doesn't work there is more than one, you will get there eventually!

Johanna (scientist): Lots of universities also offer experiences - my lab invites secondary students every year to have a look around and ask their questions in person!

Student 1: What advice would you give a 10 year old for becoming a scientist?

Maria (scientist): Keep asking questions, How?, Why?, What? And design your own experiments to find out the answers!









Georgia (scientist): This is a great question! I think focus on what you enjoy, if you keep curious and keep asking questions then you're on your way to being a scientist already.

Student 1: Thanks and when I'm older I am thinking of becoming one!

Georgia (scientist): That's great! The world always needs more curious and open minded scientists! (:

Student 1: Yes definitely!

Connecting with scientists over common interests makes them appear like "normal people" with interests and hobbies, encouraging a rapport to be built between scientist and student.

Student 1: Marvel or DC?

Katie (scientist): Marvel, although the new batman is great

Student 2: I agree

Student 1: Would you rather get a bearded dragon or get a goat?

Katie (scientist): Goat would be cool

Student 1: What about bearded dragons? They are cool

Katie (scientist): They are also cool but goats are more original

Lauren (scientist): Definitely a goat! That is my favourite animal!

Subject specific questions are great to generate interest in the subject area.

Student 1: What microbe takes over the human immune system the fastest?

Jamil (scientist): Definitely bacteria that grow the fastest. The worst type is definitely one called necrotising fasciitis that grows quickly and releases proteins that destroy different areas of the body!

Student 1: Woah that is super interesting, thank you for the reply!









Scientists of the Week

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

The Scientists of the Week were:



Georgia Harris, Lifetime CDT PhD student at the University of Birmingham



Sara Luzzi, Postdoctoral Research Associate at Newcastle University

Scientist Winner

The overall winner, with the most votes at the end of the Zone was:

• Gareth Nye, Programme lead for Medical Science and lecturer at University of Chester

They receive £500 to spend on further public engagement projects.



"Chatting with you all over the past month has been an absolute honour; I have learnt a lot about myself and your questions have made me think about my research from a brand new way, even giving me new ideas for things to research. I have loved being able to share with you my enthusiasm for my job and my area of research and I hope that, along with the other scientists, you have learnt that science careers can be a lot of fun and a great path to take in life."

You can read their full statement at healthyworld22.imascientist.org.uk/2022/04/25/a-thank-you-from-your-winner-gareth









Feedback

Thank you for answering our questions. It was really an incredible opportunity to meet you, I'm really excited for your discoveries.

Student



Sara Luzzi

Had again a fantastic time today at @imascientist chatting to possible future scientists! The students had so many great questions. We even talked about gender equality and #WomenInSTEM which was awesome! #AcademicChatter #engagement

4:30pm - 16 Mar 2022 - Twitter for Android

I think it has helped to remind me to feel proud of myself and how far I've come on my science journey! Their enthusiasm in my topic reminded me how cool working in science is

Georgia (scientist)

Thank you for answering all the students' questions. The atmosphere in the class has been fantastic - the students have been so excited to find out about you all. Thank you again for your time.

Teacher

Thank you to everyone for giving their time this morning, and for being so patient. The students really enjoyed the session and got a lot out of it!

Teacher

Thank you, it encouraged me so much.

Student



