

April–July 2020

In March 2020, schools were closed due to the COVID-19 pandemic, creating uncertainty in education. Many STEM enrichment activities for students were cancelled.

I'm a Scientist, Stay at home was launched to allow school students to stay connected with STEM from April to July. Students could log in and take part whether they were at school or at home, reconnecting with their teachers and each other.

2,500 STEM professionals signed up to take part and inspire students across the UK. Over 800 schools registered for their students to stay engaged with science, engineering and maths.

The Medical Research Zone ran over 12 weeks as part of the *Stay at home* activities and was funded by the Medical Research Council with additional funding from UKRI.

- 135 scientists created profiles in the Zone. 121 engaged with students in live chats and answering questions.
- 104 of the scientists were new to the *I'm a Scientist* activities.
- Scientists from a broad range of areas and career stages took part. For example, Kim Liu is a Chemical Biologist, Anabel Martinez Lyons is a Liver Cancer Researcher and Luke Bryden is a Neuroscience PhD student at the University of Oxford.
- 91 live chats took place during the activity. On average, 7 researchers attended each live chat session.
- 229 posted questions were approved and sent to the researchers who responded with 636 answers.
- 1,248 students from 53 schools all over the UK logged into the Zone. 33 of these schools had taken part in a previous *I'm a Scientist* activity.
- 8% of active students were from widening participation schools, and 55% from underserved schools.

Key activity figures

Medical Research Zone was one of the busiest of the *Stay at home* zones, with numbers above average in almost all categories. For example, students from 53 schools took part in the zone, in comparison to the average of 32 schools. There were 91 live chats compared to the average in the zones of 55. Chats themselves were busy, producing an average of 279 lines per session, compared to the average 227 lines.

33 out of the 266 Ask questions were about coronavirus, and COVID-19 was the most used keyword. However, this didn't dominate the conversations. There were many questions about the scientists' research, with almost a third of all questions in Ask about careers and education. Common discussions in Chats were about disease and viruses, cells, DNA, and how drugs affect the body.

	MEDICAL RESEARCH ZONE	STAY AT HOME AVERAGE
Schools	53	32
Students logged in	1,248	682
% of students active	51%	57%
Questions asked	266	178
Questions approved	229	151
Answers given	636	421
Scientist comments	185	95
Student comments	48	18
Votes	623	350
Live chats	91	55
Lines of live chat	25,404	13,374
Average lines per chat	279	227

Overall, fewer students took part in the *Stay at home* activities than anticipated, likely due to difficulties teachers faced with remote teaching and online learning.



28% of non-participating teachers told us they had been too busy to fit in a live chat due to an increase in workload. Others shared that their students were particularly struggling with online curriculum learning, and were unable to offer extra-curricular activities.

A majority of students took part from home. This led to a lower average percentage of active students (57%) due to challenges faced by teachers to engage classes and issues with access to technology at students' homes.

School activity

Chatsmore Catholic High School, Worthing [U] (113  9 	Loreto College, St Albans [U] (12  24 	
Liverpool College, Liverpool (86  15 	Colton Hills Community School, Wolverhampton [WP/U] (12  7 	
St Edward's CE Academy, Leek [U] (66  27 	Merchiston Castle School, Edinburgh (12  6 	
Dame Alice Owen's School, Potters Bar (66  8 	Riverside College Halton, Widnes (12 	
Mary Webb School and Science College, Shrewsbury [U] (37  7 	Sir John Hunt Community Sports College, Plymouth [WP] (11  14 	
Trinity CE School, Belvedere (35  10 	St Mary's Catholic High School, Croydon (10  5 	
Kirkby Stephen Grammar School, Kirkby Stephen [U] (32  12 	Robert May's School, Hook [U] (9  26 	
Caerleon Comprehensive School, Newport [U] (27  23 	Stirling High School, Stirling (9  5 	
Rainham Mark Grammar School, Gillingham [U] (24  6 	Dundee and Angus College, Dundee (8  9 	
Notre Dame Catholic Sixth Form College, Leeds (21  9 	Richard Huish College, Taunton [U] (7  10 	
Northampton School for Girls, Northampton [U] (20  8 	The Royal School Dungannon, Dungannon [U] (7  8 	Slough and Eton CE College, Slough (4 
Teesdale School, Barnard Castle [U] (19  10 	New College Doncaster, Doncaster [U] (7  7 	Plumstead Manor School, London [WP] (3  23 
Aquinas College, Stockport (19  10 	Lady Eleanor Holles School, Hampton (6  12 	St John Payne Catholic School, Chelmsford [U] (3  1 
East Sussex College Group, Eastbourne [U] (18  6 	The Crompton House CE Academy, Oldham (6  12 	Belper School, Belper [U] (3 
St Aidan's Catholic Academy, Sunderland [U] (17  12 	Denny High School, Falkirk (6  9 	Colne Community School, Colchester (2  16 
South Wirral High School, Wirral [WP/U] (15  20 	Bluecoat Beechdale Academy, Nottingham [WP] (6  8 	Wargrave CE Primary School, Newton-le-Willows [WP] (1  20 
St Katherine's School, Bristol (15  18 	The Derby High School, Bury [WP] (4  17 	Gumley House RC Convent School, Isleworth (1  14 
All Saints Catholic College, Huddersfield [WP] (14  15 	St Bridget's Primary School, Glasgow City [WP] (4  11 	Ballyclare High School, Ballyclare [U] (1  1 
The Arnewood School Academy, New Milton [U] (13  23 	New College Stamford, Stamford [U] (4  11 	Nova Hreod Academy, Swindon [U] (1 
Garforth Academy, Leeds (13  12 	Lymm High School, Lymm (4  6 	Shire Oak Academy, Walsall [WP] (1 
		Kingsbury Green Academy, Calne [U] (1 
		Moor End Academy, Huddersfield [WP] (1 
		The American School in London, London (1 

Map and table (above) show schools with students who actively participated in the zone.

Numbers next to schools represent the number of active users [] and if they took part in a live chat, the average lines of live chat per active user [].

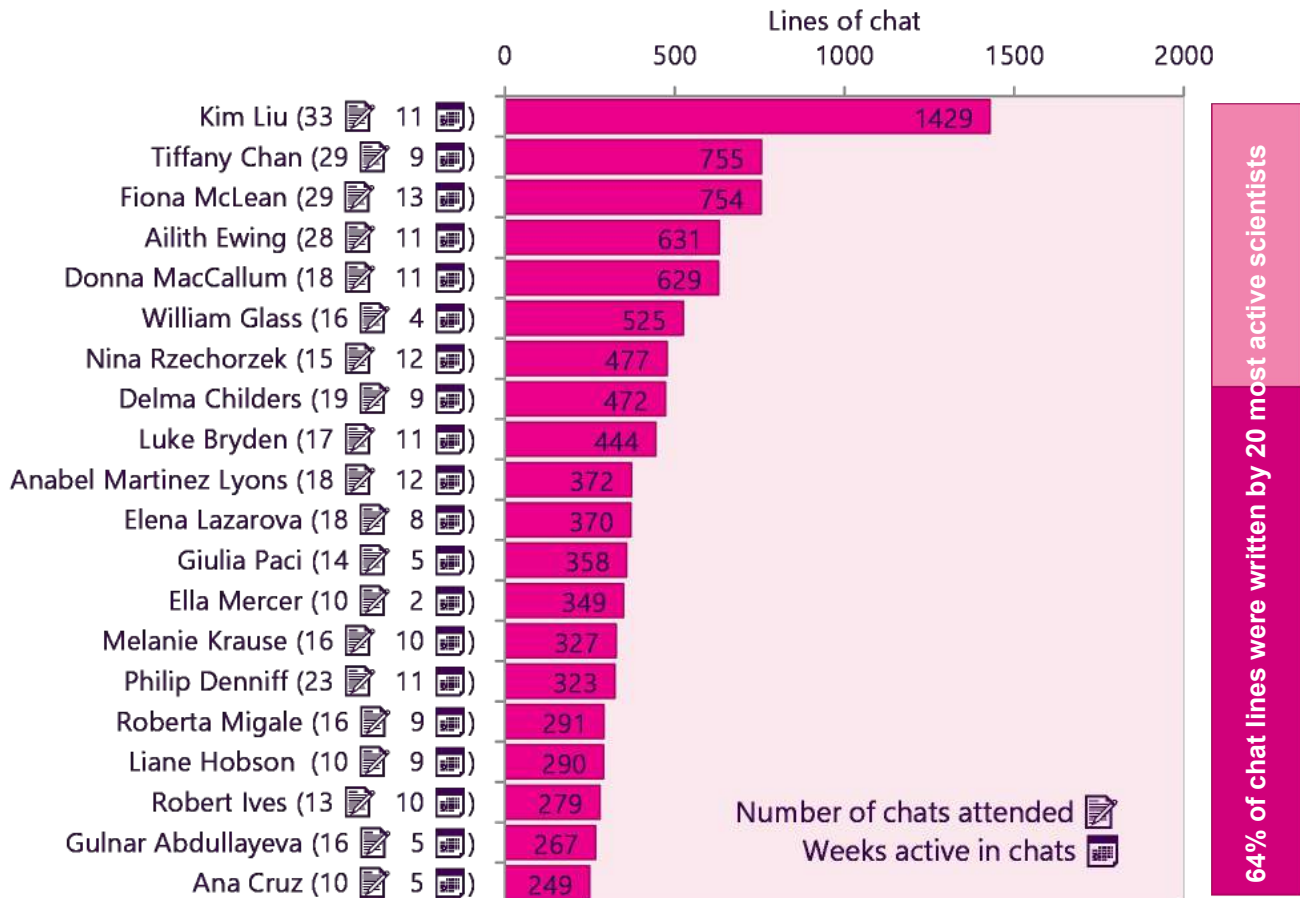
We want to increase the participation of under-represented groups going into STEM careers. Find out what we mean by our under-served (U) and WP schools (WP), and how you can support us in working with more of these at:

about.imascientist.org.uk/under-served-and-wp/

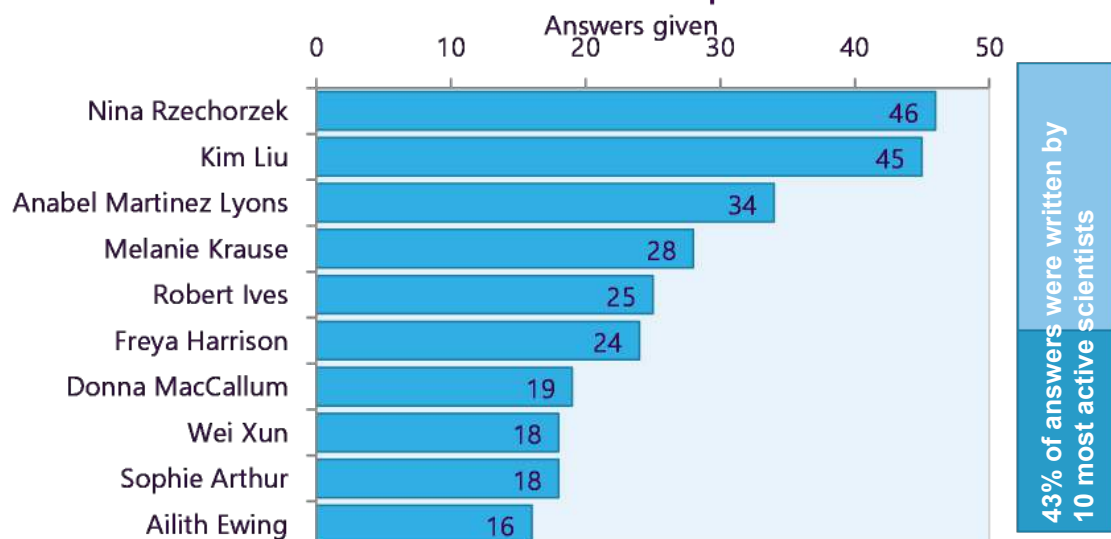
Scientist activity

121 scientists were active in the zone, writing 14,592 lines of live chat and providing 636 answers to posted questions.

20 most active scientists in live chat



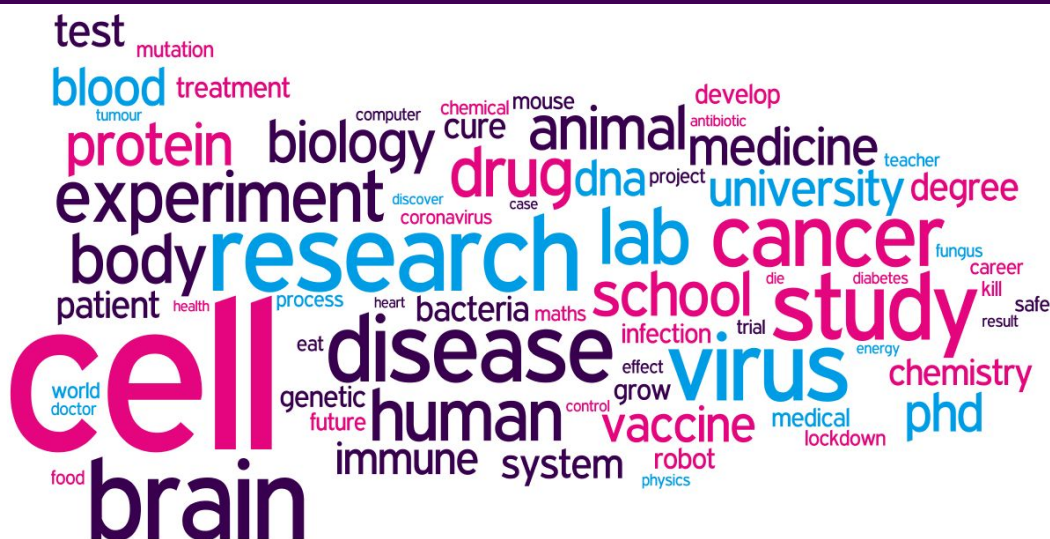
10 most active scientists in posted answers



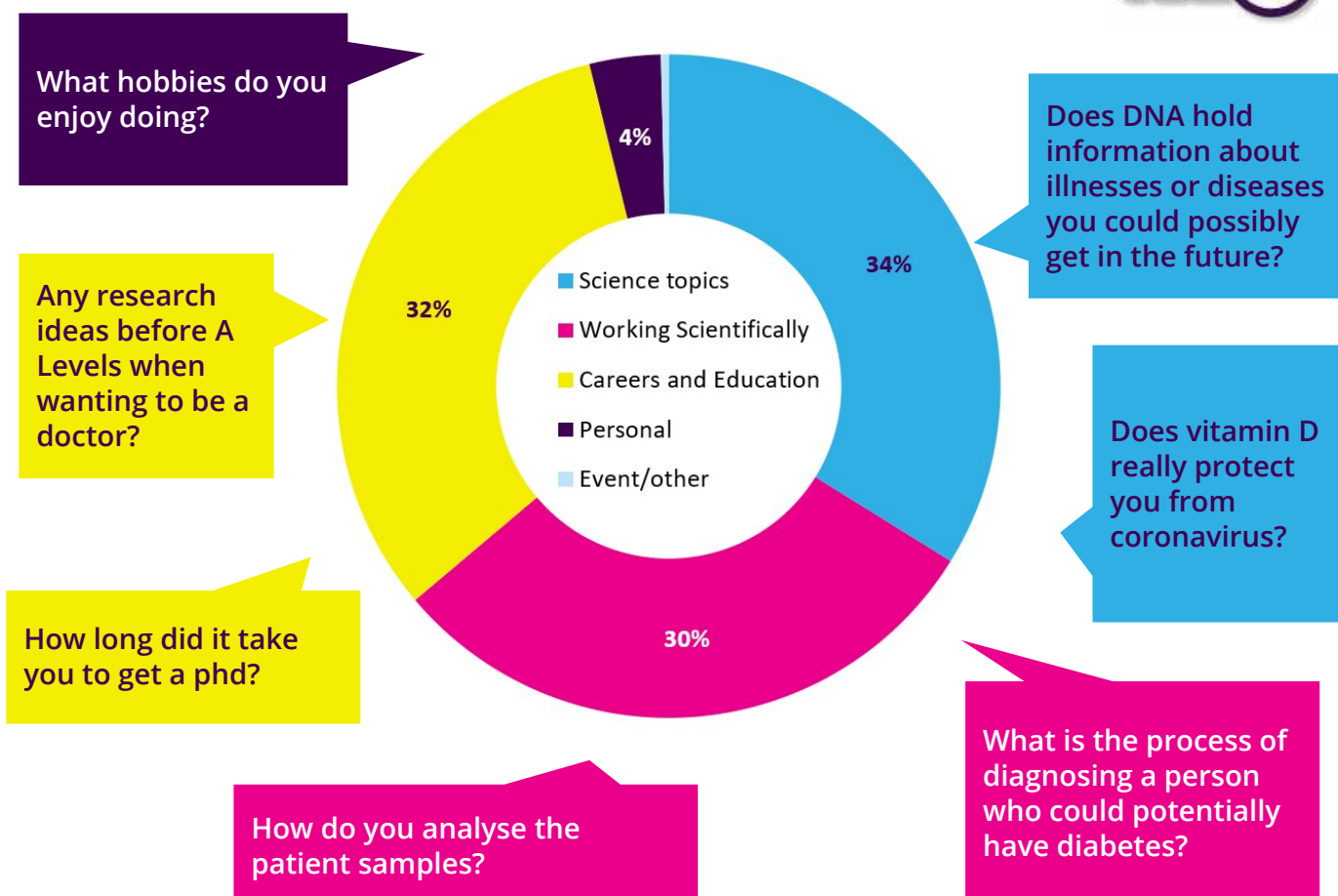
See all the participating scientists: medical20.imascientist.org.uk/scientists/

Popular topics

Frequent words used in live chats by students and scientists



Question themes and example questions



Examples of good engagement

Students discussed careers with the scientists, who showed the vast range of STEM careers available. The scientists also showed how different disciplines interlink, and the applications of these such as in this conversation about bioengineering:

WillH @all I'd like to go into engineering however I really enjoy biology do the 2 subjects work well together?

Nina @WillH: absolutely - Bioengineering! Tissue regeneration is very trendy right now

Tiffany @WillH: yes! I did a masters in biomedical engineering - sounds like it would be perfect for you! happy to talk more about what this consists of it would be helpful!

WillH @Tiffany: sounds good could you please tell me what it entails

Tiffany @WillH: sure! biomedical engineering looks at the application of engineering to biomedical problems - so, the design of things like prosthetics, new technologies for drug delivery, robotic devices for surgery etc

WillH @Tiffany: I'm trying to take biology, physics and engineering at a level as I'm going to a level next year are these good subjects for biomedical engineering

Nina @WillH: yes, definitely - but maybe check the University entry requirements for Bioengineering courses before making a final decision

Tiffany @WillH: yes, definitely! I think it's quite likely you will need maths (over engineering) though

Chats were also a chance for students to find out exciting scientific facts, with the scientists helping students understand complicated topics in accessible ways:

Mia @Luke Roughly, how many nerve cells are in the average human brain?

Luke @Mia Hey, there are roughly 85 billion nerve cells in the human brain. In the Milky Way (which is the galaxy planet earth is in), there are 100-200 billion stars

Mia @Luke: WOW!!

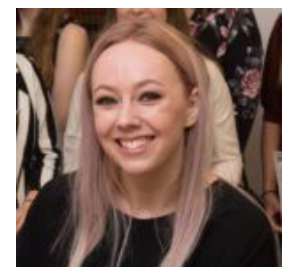
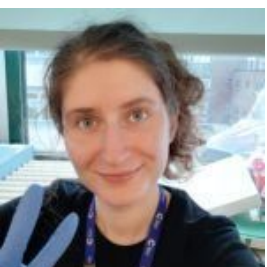
Luke @Mia So our brains contain nearly as many nerve cells as there are stars in the Milky Way!

Mia @Luke: That's amazing!!!

Scientists of the Week

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

The 10 *Scientists of the Week* were **William Glass, Kim Liu, Nina Rzechorek, Philip Deniff, Tiffany Chan, Elena Lazarova, Delma Childers, Ailith Ewing, Ed Tunnacliffe, and Katrina Wesencraft**. The overall winner in this zone was **Kim Liu**.



Feedback from the Medical Research Zone



Super impressed with the questions asked to scientists in the [#medicalresearch](#) zone of [@imascientist](#) this morning! Well done to all senior pupils who took part. Remember to login and vote for your scientist of the week! [@Stirling_High](#)

We all just wanted to say thank you so much for answering all our questions we've learnt so much! -- Student

It is a great experience for me. I have learned lots of things from students and scientists. I have learned how to explain my research in a clear way. -- Gulnar Abdullayeva, Scientist

It has been really great to chat to students and other scientists and think more about what's really important. It's helped me gain some perspective and remember what I enjoy. -- Ailith Ewing, Scientist

Oh i am so becoming a scientist! :) -- Student

Feedback from across the Stay at home activity

Everything was amazing! I was astounded by the questions that the children were asking and about how well the scientists answered their questions. My class were really inspired and have realised what a wide variety of careers use Science. They believe that they can do it too. -- Teacher

I'm a Scientist has been a lifeline for me, I'm isolating on my own and it can be really lonely. I have really enjoyed chatting to students and scientists and learning so much! -- Chloe, Scientist



I decided to take part in [@imascientist](#) to remind me why I enjoy being a scientist, to remind me what was important about my work and to learn from the enthusiasm of students and other scientists alike. It worked. I am grateful. Highly recommend to scientists at all career stages

1:20 PM · Jul 27, 2020 · [Twitter Web App](#)

im so happy this was a homework enrichment! :-) -- Student

That was the academic highlight of the lockdown so far. It was fast and furious wasn't it!? So many students signed up and all engaged. Again a big thank you from me and year 7! -- Head of Year 7, Bournemouth School

Feedback from across the Stay at home activity

Was just as much a benefit for me as for students. Isolated working from home, the chats were just what I needed to lift my spirits and get excited about science! --
Elena Maters, Scientist



Thank you @imascientist for providing our pupils with the opportunity to talk to scientists today. They thought it was "so cool" and we were very impressed by their questions! 🤖🧠👁️

1:32 PM · May 27, 2020 · Twitter for iPhone

Thank you scientists very interesting answers loved this might be a scientist for my job! --
Student



Lucie Evans ▸ I'm a Scientist

12 May · 🌐

Just had the most wonderful 40 minutes of live chat with 9 of your scientists and 22 of my year 8 students. The scientists were superb and the students absolutely loved their chat time. They're scrutinising all the answers now and deciding who to vote for! Thank you so much for running this during lockdown, it's really helped to keep them motivated and engaged.



I was just so impressed by what I think is a huge effort by all involved to support and inspire young students (many of whom are struggling to keep motivated during these uncertain times). Much thought and care was clearly given to each answer and my students have all contacted me since to say that they had "the best time!" --
Teacher