

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 March 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 Environment Zone ran over 12 weeks as part of the *Stay at home* activities, instead of the usual two. There were 42 live chats, compared to the usual two week zone average of 16. This Zone was funded by the Royal Society of Chemistry with additional funding from UKRI.

- 105 scientists created profiles in the Zone, and 94 engaged with students in live chats and answering questions. 91 of these scientists were new to the *I'm a Scientist* activities.
- Scientists from a broad range of areas and career stages took part. For example, Gareth Mason is an Environmental Ranger at Forestry and Land Scotland, Jessica Gomez-Banderas is PhD student studying chemicals produced by marine organisms, and Sylvia Soldatou is a Natural Product Chemist at the University of Aberdeen. On average, 7 researchers attended each live chat session.
- 650 students from 31 schools all over the UK logged into the Zone. 14 of these schools had taken part in a previous *I'm a Scientist* activity.
- 9% of active students were from Widening Participation schools, and 45% from Underserved Schools.

Key activity figures

Almost 50% of questions in Ask were about careers and education. The other half of Ask questions were about science topics and working scientifically, with focus on the zone theme.

Students were very interested in the individual research areas of the scientists. They wanted to know about all things to do with the environment, with conversations in chats about the oceans, different animals and climate change.































































	ZONE	STAY AT HOME AVERAGE
Schools	31	32
Students logged in	650	682
% of students active	49%	57%
Questions asked	161	178
Questions approved	133	151
Answers given	409	421
Scientist comments	92	95
Student comments	22	18
Votes	324	350
Live chats	42	55
Lines of live chat	10,772	13,374
Average lines per chat	256	227

Fewer students than anticipated took part in the activities, 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

Liverpool College, Liverpool (93  12 )	New College Stamford, Stamford [U] (3  13 )
Strathaven Academy, South Lanarkshire [U] (34  12 )	Lincoln Castle Academy, Lincoln [WP/U] (2  42 )
Northfield School, Billingham (30  12 )	Chichester Free School, Chichester [U] (2  16 )
The Holmesdale School, Snodland [U] (28  11 )	New College Doncaster, Doncaster [U] (2  7 )
The Becket School, West Bridgford (26  5 )	Lewis Girls' Comprehensive School, Ystrad Mynach [U] (2  7 )
Merchiston Castle School, Edinburgh (16  10 )	Richard Huish College, Taunton [U] (1  39 )
Kingsbury Green Academy, Calne [U] (16  7 )	Bexley Grammar School, Welling (1  4 )
Brookfield Academy Trust, Chesterfield [U] (16  5 )	Christ The King College, Newport [U] (1  1 )
Chaulden Junior School, Hemel Hempstead [WP/U] (13  19 )	Notre Dame Catholic Sixth Form College, Leeds (1  0 )
St Ursula's Convent School, London (13  9 )	Hartsdown Academy, Margate [WP/U] (1  0 )
Nova Hreod Academy, Swindon [U] (13  6 )	Samuel Ward Academy, Haverhill [U] (1  0 )
Dinglewell Junior School, Gloucester [U] (12  16 )	
St John Payne Catholic School, Chelmsford [U] (12  11 )	
St Bridget's Primary School, Glasgow City [WP] (11  10 )	
Chatsmore Catholic High School, Worthing [U] (11  5 )	
The American School in London, London (11  2 )	
Mill O'Forest School, Aberdeenshire [U] (10  20 )	
Co-op Academy Leeds, Leeds [WP] (8  16 )	
Sir Jonathan North Community College, Leicester (5  28 )	
Lady Eleanor Holles School, Hampton (5  10 )	



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

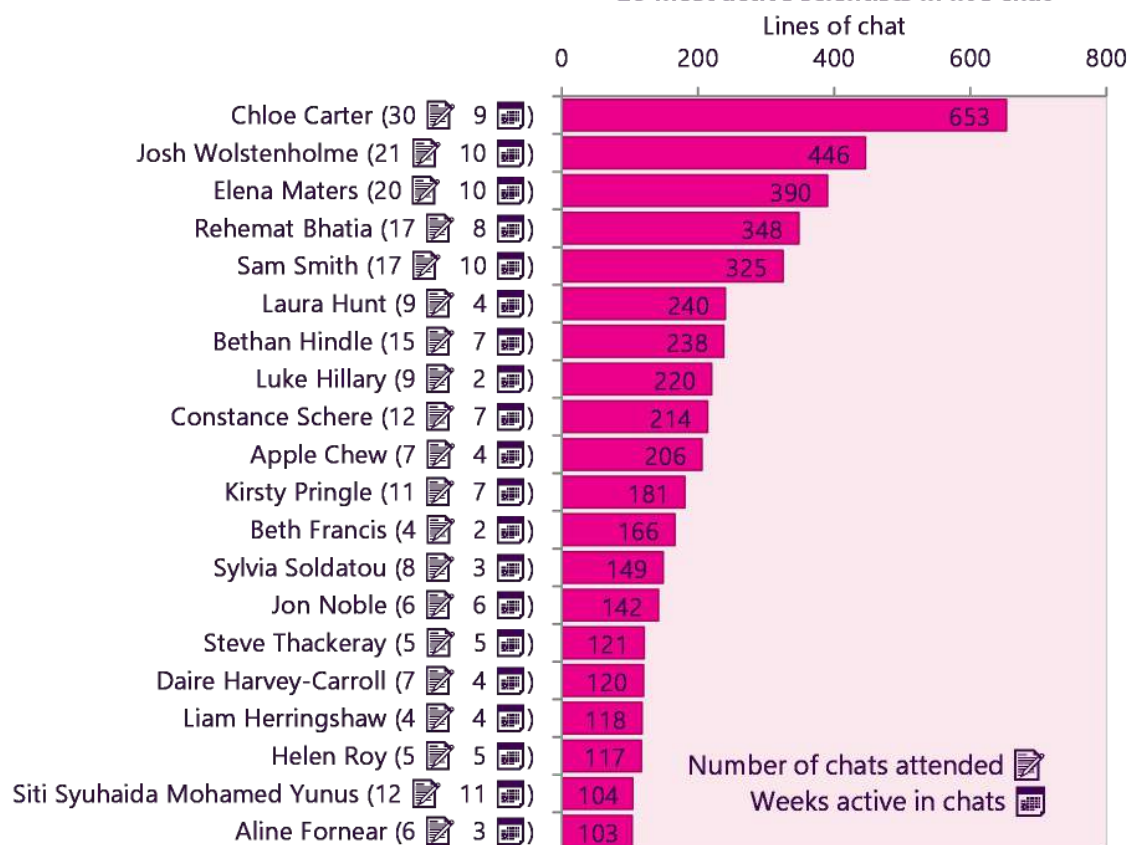
Numbers next to schools represent the number of active users [] and average lines of live chat per active user [].

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

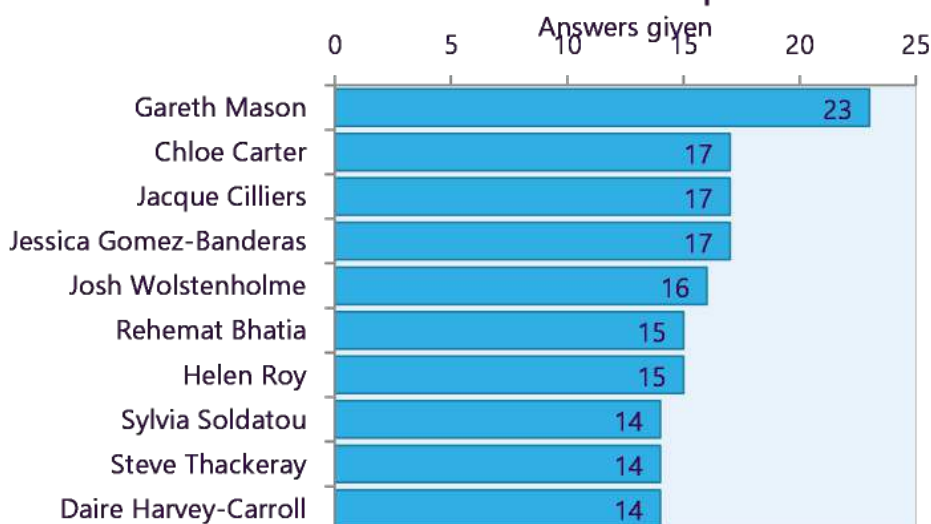
94 scientists were active in the zone, writing 6396 lines of live chat and providing 409 answers to posted questions.

20 most active scientists in live chat



72% of chat lines were written by 20 most active scientists

10 most active scientists in posted answers



40% of answers were written by 10 most active scientists

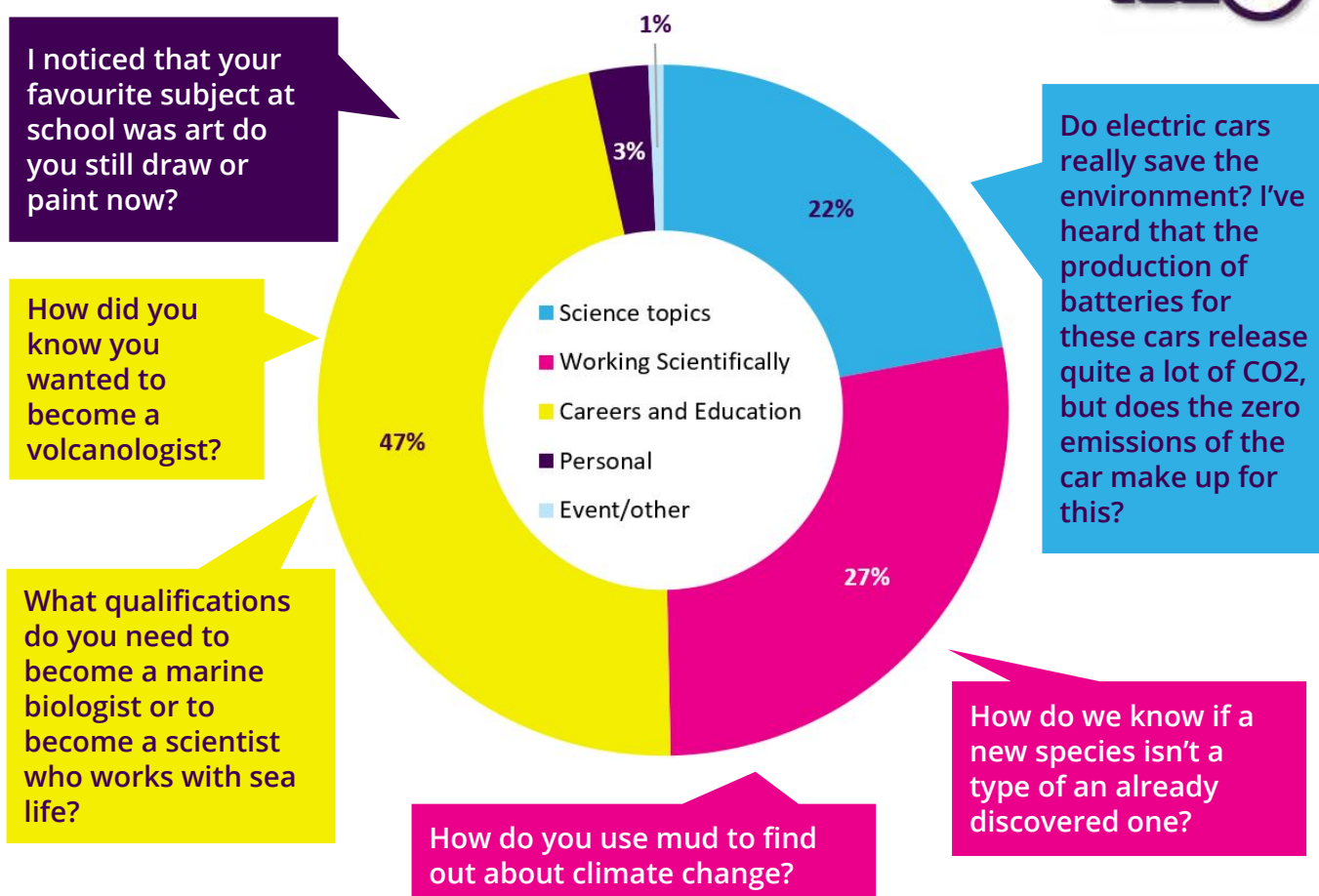
See all the participating scientists: environment20.imascientist.org.uk/scientists/

Frequent words used in live chats by students and scientists

Chat 



Ask?



Examples of good engagement

Many conversations in this zone were about specific animals studied by the scientists. In this conversation about squids and octopuses, Beth increases the students knowledge and understanding:

miniscientist2 @Beth Do you ever get confused between squids and octopuses what is the difference between them too?#

Beth @miniscientist2: squids and octopuses are both part of a group of animals called cephalopods, so they do look quite similar. The easiest way to tell them apart is that octopuses have round heads and squid are more triangle shaped. And octopuses have 8 arms, whereas squids have two extra tentacles

miniscientist2 @Beth: Thank you! Can both of them squirt ink?

Beth @miniscientist2: Yep! All cephalopods, with the exception of the Nautilidae and the Cirrina (deep-sea octopuses), are able to release ink

miniscientist2 @Beth: wow its crazy how they make it

Beth @miniscientist2: they have a special organ called an ink gland :)

Lots of conversations were about the scientists and students own hobbies and interests, such as in this chat about favourite actors. These chats allow the students to see the scientists as normal people and find things in common:

Charlie L @Aline What is your favourite actor?

Aline @Charlie L: Hi Charlie! tricky one! Tom Hardy

Charlie L @Aline: Wrong Tom! Tom Hanks is mine.

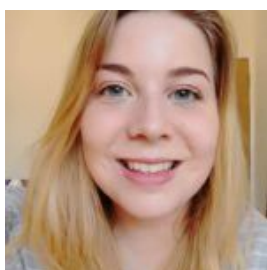
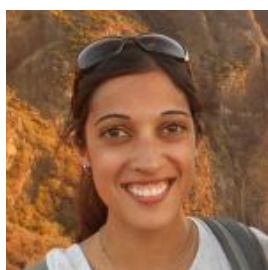
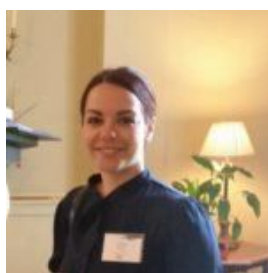
Aline @Charlie L: you know what you can never go wrong with a Tom Hanks movie. They are always good

Charlie L @Aline: Castaway is my fave!

Scientists of the Week

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

The 8 *Scientists of the Week* were **Daire Harvey-Carroll, Sylvia Soldatou, Chloe Carter, Charlotte Walker, Siti Yunus, Elena Maters, Laura Hunt** and **Gareth Mason**. The overall winner of this zone was **Sylvia Soldatou**.



Feedback from the Environment Zone



Thank you to the @imascientist team today for an amazing live chat with environmental scientists! They gave brilliant answers to some tricky questions asked by our new S2.
Looking forward to this afternoon's chat with the new S1 now.

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

I just want to say a huge thank you to the Scientists for giving up your time, you are all clearly passionate about your work and had some amazing answers. Thank you so much. -- Teacher

Thanks you all i have really enjoyed wish i could do it forever i really want to study science now! -- Student



Some of my pupils chatted with scientists in the Environment Zone today. Totally wonderful to read their questions and soak in their engagement! That human connection is so salient at the moment.

I've learnt so much... in terms of science content, and how to communicate science more clearly. Students have been so keen and so engaged, and during times when I've been struggling for motivation, it's really helped me remind me that I'm super lucky to be doing the research that I'm doing! -- Laura Hunt, Scientist

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

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

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

I'm a Scientist Team Retweeted



_DHSPHysics
@_DHSPHysics

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, Get me out of here

22 mins · 🌐

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