



## 1. The Event

I'm a Scientist is a two week long science engagement event that takes place online. It's an american idol style competition for scientists, where around 350 school students vote to decide who wins in each zone.

The event gets teenagers talking to real scientists, online, to learn about real science. Students have fun, but also get beyond stereotypes, learn about how science relates to real life, develop their thinking and discussion skills and make connections with real scientists. The event is split into zones, and in each zone there are five scientists and around 350 students. The zones are either general (named after elements) or themed.

**Rationale:** The primary objective of the event is to change students' attitudes to science, and make them feel it's something they can relate to and discuss. Giving students some real power (i.e. deciding where the money goes) makes the event more real for them.

**What's involved?:** You interact online with young people (aged 9-18 ), answering their questions about science, research, and just about everything else. You also read students' opinions on science and get them thinking about how science affects their daily lives. All you need to take part is a computer with an internet connection.

In addition to your profile there are three sections to the site:



Students ASK you questions which you answer in your own time; the sooner the better.



You CHAT with students online, answering their questions and hearing their opinions.



Students VOTE for the scientist in their zone they think should win a prize of \$500 to spend on a science communication project. Evictions take place in the second week of the event until the winner is announced on the last Friday.

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The winning scientist in each zone gets \$500 to be spent on a public science communication project. Please think seriously about what you want to do with it as the students will ask you about it. Some suggestions include:-

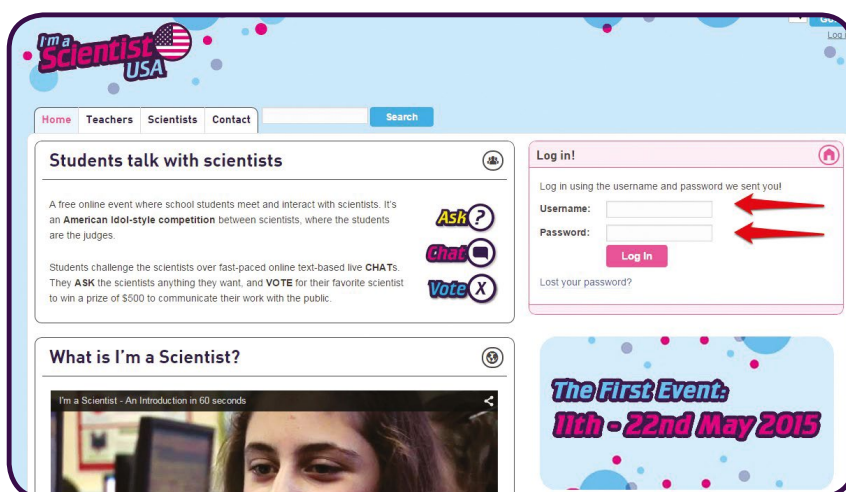
- Buying equipment to allow a research oceanography vessel to communicate with school students during expeditions.
- Funding a community open day for mothers and children involved in a medical research project to find out about the research and get health advice.
- Giving the money to a school in Uganda to pay for science kits and a projector to watch science films on.
- Funding scientist visits to schools, or school visits to labs.
- Buying a touchscreen for a local zoo, to help show visitors more about the primate research they do there.

## 2. How to use the site

### a. Log in

Go to [imascientist.us](http://imascientist.us) and enter the username and password that we'll have emailed to you. Your username will usually be 'firstnamesurname' (e.g. joebloggs).'

**THERE IS NO NEED TO REGISTER** – as a scientist you have already been pre-registered.



### b. My profile

You have a profile including a photo of you, information about you and your work, and a set of 'interview' questions. Your profile enables the students to find out more about you and your research. It's really helpful if you fill in your profile a fortnight before the event, when some classes will start going to the site to do background work. When filling out your profile remember to save regularly, after filling in each section.

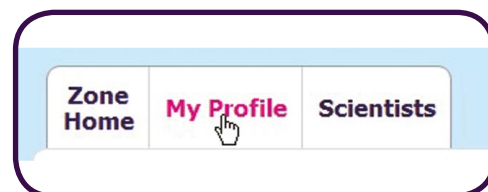
Log in then click on the 'My Profile' tab.

**1. Click the pink 'Edit your profile' button at the top of the page.** A series of boxes will appear: you need to fill them in.

There are five sections to your profile.

For sections A-C you'll be asked for a one sentence summary, and then a longer version. The short versions are all displayed on one page with a 'read more' option underneath. This is because testing showed this makes it much easier for low literacy students, while it's easy for students who want to read more to access it.

Don't feel you need to write loads for the longer versions - people reading online tend to prefer shorter texts.



## A. About me and my work

*This lets students find out more about you and your interests, and read about what you do in more detail.*

## B. My typical day

*Writing about your typical day gives students a tangible sense of what working as a scientist is like.*

## C. What I'd do with the money

*Students vote for the scientist they want to win, so they want to hear what you would do with the prize money.*

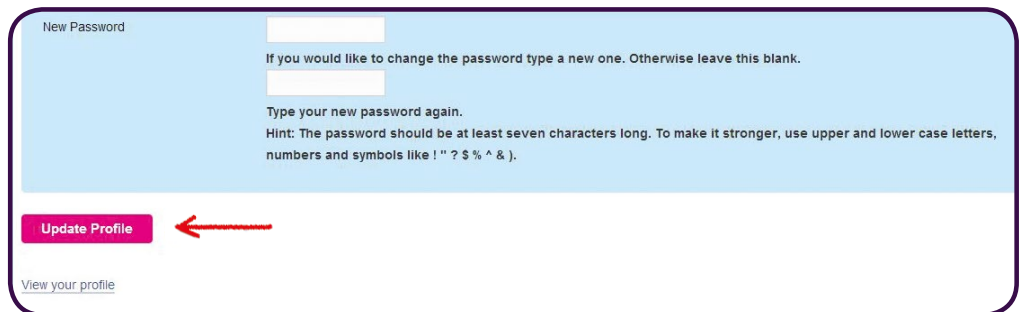
## D. CV

*This shows students how you've got to where you are now.*

## E. The interview

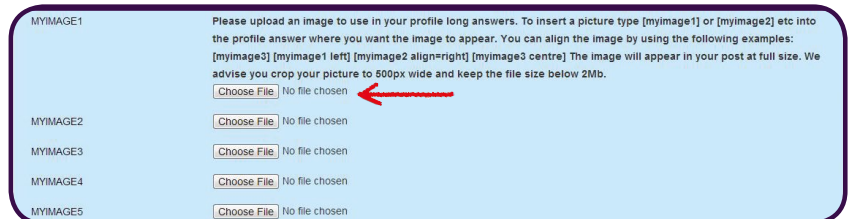
*These questions are here to show your personal side to students, who often feel that scientists are not like real people they can relate to.*

**2. When you have finished, click the 'Update Profile' button at the bottom. You can come back and edit your profile at any time**



## 3. Adding images and other media

You can put photos or other images (for example, graphs or images that illustrate your research) into the long answers only of sections A-C; 'About me and my work', 'My typical day' 'What I'd do with the money', and also into the 'Work photos' section.



To do this, upload as many images as you wish to use in the 'my images' section at the end of the list. The site will then call these images myimage1, myimage2, etc.

To insert these images into your text, type the name in square brackets where you wish it to appear. For example:-

Here's a picture of my cat [myimage1]

You can even embed videos into sections A-C from YouTube or similar. You'll need to use the embed short-code around the link URL:

1. Paste in the URL of the video;
2. Make sure the URL is not a link. It should not be underlined. If it is, click the link once to make it active then click the break link icon in the toolbar (it looks like a broken chain);
3. Put [embed] before the link and [/embed] after it.

However, do be aware that some school systems will block YouTube and many other video sites. This isn't necessarily a reason not to use video, as it can be very effective, but don't make understanding your profile dependent on viewing the video as it will leave out some students.

#### 4. Changing your main photo

You can change your main photo if you wish and you should crop the picture to 108 pixels by 108 pixels. But please note, this photo will always be square in shape. If you upload a photo which is not square then the template will distort it to fit, so you may appear stretched or squashed!

#### c. Answering questions

You will be notified by email of all new questions. You can answer them in your own time, but the sooner the better.

- i. Log in
  - ii. On your profile page you will see a 'My Unanswered Questions' box on the right hand side. Up to 100 recent unanswered questions will appear in this box as clickable links.
  - iii. To answer a question, click the link and type your answer. You will also be able to view other scientists' answers to the question.
- To make it easier to find questions moderators will tag keywords in questions. The keywords are then used to list any similar questions in the 'Related Questions' box on the right hand side.

It is up to you what answers to give and how much detail to go into. Don't be afraid to write a really long answer, but at the same time you don't need to write long answers.

Our advice is simple – be honest, straightforward and to the point in your answers.

**Ask?** **Chat** **Vote** X

**Status Update**

Status:

**Update Your Status!**

**My Unanswered Questions**

- [why are cheetahs so fast](#) (Asked of 5, answered by 2)
- [How can our bones grow??](#) (Asked of 5, answered by 1)
- [why are animals alive:s](#) (Asked of 5, answered by 2)
- [how can we smell through our nose ?](#) (Asked of 5, answered by 2)

#### d. Live chats

Live chats are consistently the most popular part of the event for students, teachers and scientists. They take place in our online chatrooms, where students ask you questions and express their opinions on your work. Live chats are fun and give immediate contact between scientists and students, allowing students to relate to you. Many teachers tell us that the quieter students are more active in live chats than face to face, providing an interesting change to class dynamics.

##### i. You will be notified by email of when live chats will occur in your zone.

Please confirm whether you will take part in the live chat, by following the instructions in the email. This is really important for us to know if there are scientists taking part in every live chat.

##### ii. Log in and click on the chat icon in the top right corner



##### iii. About 5 minutes before each chat booking, two chat

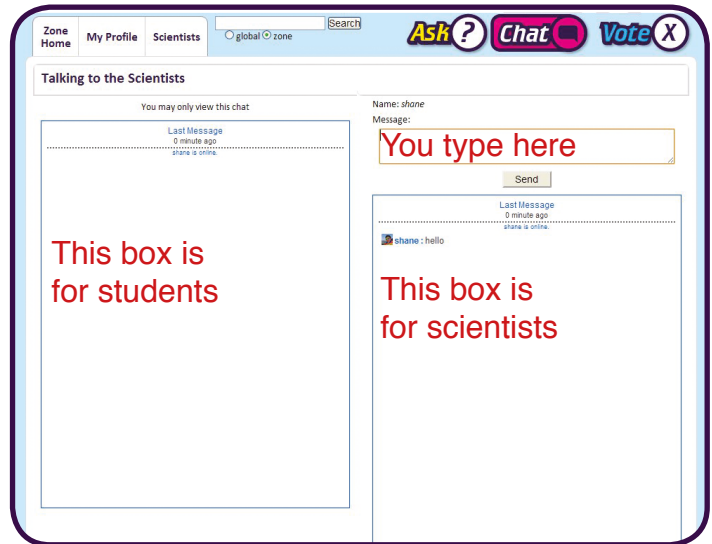
**boxes will appear on this page.** The left hand one is for students, the right hand one is for scientists. Simply type in the entry box above the chat box and press return.

#### Top Tip:

To see the live chats booked in your zone, go to [imascientist.us/live-chat](https://imascientist.us/live-chat). You can filter all the booked chats by zone and date.

## Tips for chat

- Chats can be very hectic, but also exhilarating. Enjoy the hurly-burly and don't worry too much about your spelling!
- Test it out by coming to the drop-in chat session (details on the separate key dates sheet) so you've got your head round how it works.
- Remember that anyone with a mortarboard next to their name in a chat is a teacher.
- Use @username to address your answer to a particular student. Otherwise they may not realise you've answered their question, and keep asking it.
- *'If you get behind on a chat room, it's better to skip a few questions and get back to the top of the screen - otherwise you keep answering questions after the students have gone!'* Moderators have had a lot of practice and they can repeat questions that have been missed.
- Be patient. Some young people's turn of phrase and use of language may be different from academic discourse. It may take you a little while to understand what they are trying to ask. This is especially true when Special Schools are involved.
- Be tolerant. Sometimes young people can be over-exuberant online. Chat with them and they will calm down and engage with you.
- Don't take offence. Sometimes you will receive questions which seem quite blunt, but usually students don't mean to be offensive. The benefit of an online event is that they feel empowered to ask.
- Keep an eye out for students who stand out in the chats and/or by the questions they ask outside of the chats. We'll ask you to nominate students who have engaged well, and one student from your zone will be selected to receive a gift voucher.



## e. Moderation of questions – our policy

All questions are moderated before they are sent to you. The moderators work very hard to strike a balance between making your lives easier as scientist participants, and giving the young people the chance to ask real questions. Remember most students are 13 or 14 years old, although there will be some older students taking part too. Some classes are from Special Schools. Most students will never have had the chance to talk to a scientist before.

**Duplicates:** We know you will get sent some very similar questions (believe us, the moderators wade through and weed out a lot more of them!). Moderators will take out duplicate questions, but allow through questions which may be similar, but make additional or slightly different points.

**Offensive questions:** Moderators will remove rude or offensive questions (there are generally very few) and anything which breaks the house rules. They will allow challenging questions. They will allow irreverent, but friendly, questions. There will always be a moderator in the chatroom to help things along. However, they are not miracle-workers, and from time to time there will be the odd chat that we cannot get on track. Bear with us, we're doing our best!

### 3. Four key things you need to know

1. **This may take about 2-3 hours per day.** Last year, in the UK event, 27% of scientists spent 1-2 hours a day, 48% spent 2-3 hours a day, some spent less than 1 hour a day but about 23% spent more than 3 hours a day. Mainly because they really got into it! Many scientists spend time in the evening answering questions.

The time involved depends, to an extent, on how busy your zone is, but also how long you spend on your answers. Classes vary on how much time the teacher spends on it and how much the kids get into it and we can't predict that beforehand. We try to even it out!

2. **This is not a seminar for the super-smart scientists of the future.** There will be a wide variation in the students taking part. Most will be 13 or 14 years old, but some will be older, up to 18. There will be a big variation in ability. Some will be 'higher ability' students, some will be lower ability classes, or have special educational needs. The point of I'm a Scientist is to try to engage all students, not just the ones who might go on to study science at university.

Most teenagers won't grow up to be scientists, but they will all grow up to be people. As adults they'll have to make decisions about science – as voters, as patients, as consumers – and we are trying to help them develop the skills and confidence to do that. For some, 'Why is the sky blue?' or, 'Do you like your job?' may be the most pressing question they can think of. Part of the point is that this event humanizes science for young people – they realize that you are 'like normal people' who they can relate to.

3. **Don't be afraid to say 'I don't know'.** You will be asked many questions which are not in your area. Answer what you feel you can, but don't feel you have to Google all evening to answer these questions. Part of the point of the event is that students get a more realistic idea of scientists. They can learn that, for example, there's no reason why a psychologist should know about how much the moon weighs. This makes science seem a lot less intimidating. You can be a scientist without being a genius who knows everything! That can be a liberating realisation for students.

Also, of course, many things in science aren't known. Otherwise there'd be nothing for scientists to do. And even as adults, we can learn new things all the time. This is part of the fun of science! Don't be afraid to let students in on that secret.

4. **Get your boss onside.** We'd strongly advise you to tell your boss you are taking part in the event, and get their support, if you can. Several scientists said that this made a big difference. Questions on the website can be answered during the evening, but live chats have to be during the school day so during working hours.

Also, many scientists found themselves discussing some of the more intriguing questions with colleagues. This can be one of the most stimulating things about the event. Get your lab involved in the fun! If you need ammunition to persuade your boss of the benefits, we suggest the following points:-

- Taking part in I'm a Scientist develops your communication skills. This is the most mentioned benefit from taking part.
- It can re-energise you about your own science, and get you thinking differently. Teenagers can ask great questions.
- It can broaden your science and your relationships with other scientists. It's easy sometimes to get stuck in your specialism. Scientists in previous events have learnt, or been reminded of many other areas of science, and even formed collaborations (or friendships) with scientists in other areas they 'met' during I'm a Scientist.
- You're 'giving something back' and contributing to science education and the future of science.

## 4. Advice on engagement

### 1. Be yourself

Our best advice is to be yourself in your answers. You don't need to pretend to like Justin Bieber for young people to relate to you, being genuine is what's important.

### 2. Be friendly

When we asked scientists what they would do differently if they did it again, one answer that summed up many was, *'I would be less formal and more personal from the start'*.

### 3. Simplify your language

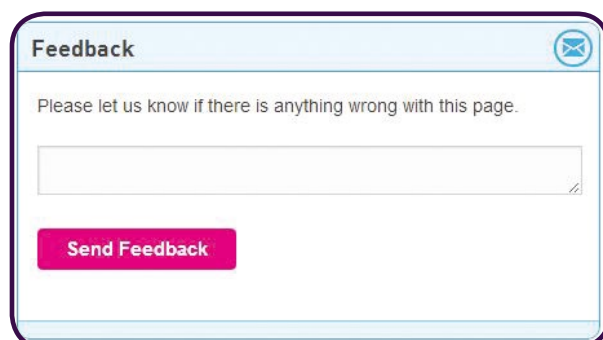
Even if you think you are using simple language, scientists work in an environment where there is a lot of jargon, and technical words are often used when simpler ones are available. It's easy not to realise when your language may be going over the heads of most 13 year olds.

Don't 'identify', 'find'. Don't 'utilize', 'use'. Don't 'investigate', 'look at'.

### 4. Talk to us!

Please communicate with other scientists and the moderation team, as well as the students. We've occasionally had scientists finish the event and say in feedback that they were having technical problems, or were worried about particular questions, or similar. We'd much rather hear at the time so we can do something about it. Let us know if you're having problems using the feedback form on the right hand side of the browser when you're logged in.

We use Twitter as a way to interact with scientists taking part in I'm a Scientist, amongst other things. It's a great way to communicate how the event's going, learn more about you, the scientists taking part, and ultimately keep in touch with scientists after the event. So get on board and follow us at @imascientistus ([twitter.com/imascientistus](https://twitter.com/imascientistus)) and keep an eye on tweets marked #IASUS at [twitter.com/search/IASUS](https://twitter.com/search/IASUS)

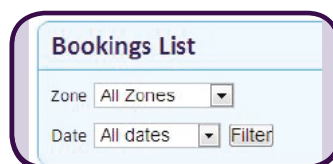


A screenshot of a feedback form titled "Feedback" with a mail icon in the top right corner. The form contains the text "Please let us know if there is anything wrong with this page." followed by a text input field and a "Send Feedback" button.

## 5. Useful links on the site

1. See all the live chats booked in your zone at [imascientist.org.uk/live-chat](https://imascientist.org.uk/live-chat). You can filter the chats by zone and date.

2. Visit the staffroom at [imascientist.org.uk/live-chat](https://imascientist.org.uk/live-chat) during the event to say hi, or if you've got a question for the moderators.



A screenshot of a "Bookings List" interface. It features two dropdown menus: "Zone" with "All Zones" selected and "Date" with "All dates" selected. A "Filter" button is located to the right of the "Date" dropdown.



## 6. Rationale behind the event:

Many studies have shown a need for students to develop a greater understanding of the scientific method and the work of scientists. Changes in society and STEM education increasingly require students to have knowledge of the practices of scientists. It has also been shown that there needs to be more opportunities for students to engage with scientists. Alongside this is a growing understanding of the benefits to learning of approaches that eschew didactic memorization and instead apply constructivist pedagogical theories to teaching and learning.

Ensuring America is a leader in STEM is a priority of the United States Government. A 2013 five year strategic plan from the National Science and Technology Council is “Making STEM a priority in more of the Administration’s education efforts.” To demonstrate his commitment President Obama has hosted five White House Science Fairs between 2010 and 2015. The President has also issued a call to action to the 200,000 Federal scientists and engineers to volunteer in their local communities and think of creative ways to engage students in STEM subjects.

- The National Science Federation now looks at the ‘Broader Impacts’ of proposed research when reviewing scientists grant proposals. In order to receive funding researchers’ proposals are now assessed on their ability to “Advance discovery and understanding while promoting teaching, training, and learning achieve” and “Broaden dissemination to enhance scientific and technological understanding”.

Research on both the public understanding of science and STEM education has found that in order for people to understand and meaningfully participate in discussion and debate on scientific issues, as well as when making decisions in their lives, an understanding of the scientific process is in many ways more crucial than an understanding of specific science facts. For example understanding how peer review works, how hypotheses are tested and how scientific consensus emerges.

Analysis suggests that, for example, public distrust of vaccinations has much more to do with lack of understanding of the scientific process than to do with lack of understanding of specific scientific facts per se. Similar arguments have been made regarding public attitudes to anthropogenic climate change.

In order to improve science education the National Research Council (NRC) has developed a “Framework for K-12 Science Education” and the Next Generation Science Standards (NGSS) which are built around 3 elements; Practices, Crosscutting Concepts, and Core Ideas. “The practices describe behaviors that scientists engage in as they investigate and build models and theories about the natural world”.

One of the best ways for young people to gain an understanding of the practices of scientists is for scientists to engage with students and enable them to ask questions about their work. There is substantial evidence that ‘experiential learning’ is far more memorable and inspiring for young people. We consulted extensively with teachers to make sure we were producing an event that would meet their needs and actually work in the classroom. Sometimes teachers face abstract or esoteric questions that can greatly benefit from the expertise of practicing scientists. Our research and evaluation has shown that I’m a Scientist is of significant benefit to students’ discussions of science and society issues and enables them to put their learning into a wider context.

### Contact

If you need any help please email [admin@imascientist.us](mailto:admin@imascientist.us)

For further information please visit: [imascientist.us/scientists](http://imascientist.us/scientists)