

Teacher Notes

What is I'm a Scientist?

You can read this to your students to brief them about the activity. It may help to have the website (imascientist.ie) up on a projector or interactive whiteboard whilst you describe the activity.

I'm a Scientist, Get me out of here! is an enrichment activity where students connect with real scientists online. It's a competition between the scientists and has three sections: ASK, CHAT and VOTE.



You have the chance to ask the scientists whatever you like. Post your questions to the scientists any time and they'll try to answer by the next day. If you leave an email address, you'll get an email to let you know you've been answered. Questions and answers in ASK stay on the site so have a look around and see what others have asked.



You'll have a 30 minute live chat where you type your questions to the scientists and chat in real-time. Think about what you want to ask before the chat, because the 30 minutes will go very quickly! Not all the scientists in your zone will be there, but you can expect to talk to two or three. If a scientist you wanted to talk with isn't in the live chat, don't worry, you can post them questions in ASK.



You decide which scientist should win a prize of €500 to communicate science with the public. You get a new VOTE every day of the second week, when the scientist with the fewest votes will be evicted at 3pm until the winner is announced on the Friday.

It's a competition for students too!

A student from each zone will win a €20 gift voucher for asking great questions and showing good engagement with the scientists. Filling in the short questions on your profile and responding to the email survey after the activity will give you another chance to win a €20 voucher.

Logging into the site

You'll get a card with a username and password which you'll need every time you log in. Write your name on the back of the card and keep it somewhere safe or take a photo. When you log in you will be taken to your profile page. Click 'Edit Profile' to create a display name. This will be shown on your questions in ASK and in the live chat, so don't use your full name. Add your email address so we can tell you when your questions are answered and keep you up-to-date with the activity.

Take a look at the scientists' profiles, read the questions already in the zone and get started posting your own questions in ASK. Remember, the scientists are competing for your VOTE – who deserves it most?!

Don't forget you can log in outside of school to post more questions to the scientists. There will also be an evening chat you can join with your family and friends – ask your teacher for more information.

How much time should you spend on it?

Minimum: 2 hours

This will usually be one introductory lesson, one piece of homework (we suggest reading scientists' profiles and posting questions in ASK) and one lesson of live chat with the scientists.

Be warned:

Most teachers, when asked what they would do differently next time, said 'spend more time on *I'm a Scientist*'.

Live chats:

Book your live chat session at imascientist.ie/live-chat/ as soon as possible, as places get filled up quickly. See page 7 for more information on the live chat.

Voting and evictions:

From Tuesday of the second week, one scientist will be evicted every day until the winner is announced on the final Friday. During this week, even in lessons not on *I'm a Scientist*, take five minutes at the start or end to check the website to see who has been evicted from your zone. The evicted scientist will be announced in a news post on the website after 3pm. If students have entered their email on their profile, we'll email them to keep them updated.

Day	M	T	W	T	F	M	T	W	T	F
Voting Round	1					2			3	4

Students get one vote each round, ending at 3pm with the eviction of a scientist. The winner is announced on the final Friday.

Lesson Plans

There are many ways to use the *I'm a Scientist* activity. We've put together three suggested lesson plans, developed in consultation with teachers and extensively tested. Most have found them extremely helpful.

Format: Starter/activity/plenary

Suggested adaptations: For lower and higher ability groups

Timings: Designed for 50 mins

Purpose: Develop skills for Working Scientifically.

Further resources: Online at imascientist.ie/resources-for-teachers

Lesson 1 — "You're the Judges!" Coming to it cold, students may just vote for the scientist with the nicest photo, or the best joke. This lesson plan gets students thinking about some of the deeper issues, while still giving them ownership of the criteria they come up with (rather than telling them what to consider). There's no right or wrong answer, but all students should have thought about how we judge scientists a little by taking part. Do the exercise interactively using the web ranking system we have produced and we can share how other classes have ranked the criteria.

Lesson 2 — "Meet the Scientists" This lesson encourages students to examine the scientists' profiles and think about what they might like to ask them. It's a chance for students to discuss the interesting things they've found and maybe do some extra research before their live chat.

Lesson 3 — "Live Chat" Interaction with scientists and voting gives students practice at using these skills and giving them a real say about something gives them a reason to engage.

Lesson 1 — You're the Judges!

Introduce *I'm a Scientist*.

Choose and rank criteria by which to judge the scientists.

Lesson objectives:

- Consider a range of criteria and understand that different (important) values may need to be weighed against each other.
- Develop a sense of democracy and how to decide how to cast a vote.
- Discuss different viewpoints and understand that different values will be important to different people in the class.

Curriculum links:

- Working scientifically — consider ethical, social and practical aspects of science.
- Promotes democracy and SMSC development.

Resources:

- Access to the *I'm a Scientist* website (imascientist.ie)
- 'Interactive drag and drop criteria list' or 'criteria cards for printing' from imascientist.ie/resources-for-teachers
- Student login cards (for homework)

Starter: 5 minutes

Explain the *I'm a Scientist* activity briefly (use the first page of this booklet and show the website on a projector or interactive whiteboard if possible).

The students have the power to decide who wins. What ideas do they have about science at the moment?

Will they change?

Activity: 30 minutes

- 1) Display the criteria list. Use the interactive drag and drop list, or print the criteria cards for students to use in groups – available at imascientist.ie/resources-for-teachers
- 2) Get the class to whittle down the most important criteria and write these on the board.
- 3) Get the class to rank the five most important criteria – save this list for next lesson.

Plenary: 15 minutes

- Mindmap any other criteria not on the list, but that students might consider important when judging scientists.
- Overall message: this will help you judge the scientists as scientists.

Suggested Homework:

- 1) Staple your login card somewhere safe or take a photo of your login details.
 - 2) Log in to imascientist.ie and set up your profile.
 - 3) Read some scientists' profiles – how does each person perform based on your criteria from today's lesson?
- Extension: If you have questions for the scientists already, post these in ASK.

Suggested adaptations

Support:

Less justification necessary. Lead students into the rationale behind their decisions.

Extend:

Ensure full justifications and explanations are given by students whenever they express an opinion.

Lesson 2 — Meet the Scientists

Scientific speed-dating, a fun, exciting way to 'meet' the scientists.

Lesson objectives:

- Get to know scientists and realise they are normal people!
- Consider some questions students may want to ask the scientists.
- Broaden the students' perceptions of scientists and contribute to students' science capital (find out more at imascientist.ie/science-capital).

Curriculum links:

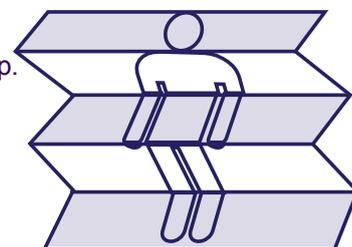
- Select, organise and present scientific information.
- Evaluate scientific information and make informed judgements from it.

Resources:

- List of the top five criteria chosen in Lesson 1: You're the Judges!
- Printed Suggested Questions sheets found at the bottom of page 5 or online at imascientist.ie/resources-for-teachers. Have enough copies for one per scientist in your zone.
- Printed copies of each of the scientists' profiles in your zone.
- Paper and pens for drawing a scientist.

Starter: 10 minutes

- 1) Split students into groups — one group for each scientist in your zone.
- 2) Ask them to think about what they imagine scientists are like. Draw a scientist as a group. Starting at the top of the piece of paper, each person in the group draws a different part of the scientist (head, shoulders, etc) without others seeing, folds over what they have done and passes it on (like a game of consequences).
- 3) Unfold and look at the pictures — are there any common themes? Do they think scientists are really like that?



Activity: 30 minutes

- 1) Assign each group a scientist from your zone and hand them a print out of the scientist's profile. Get each group to read out their scientist's name and job role.
- 2) Remind the students of the five most important criteria they chose in Lesson 1: You're the Judges! for rating scientists.
- 3) Get the students to read through their scientist's profile as a group.
- 4) Split each group in half, into A's and B's, for scientific speed-dating. Group A are students who will go around and question Group B, who are the scientists. Group B will base their answers on the scientist profile pages.
- 5) Hand the Group A students the list of Suggested Questions to ask the Group B scientists. They can also ask questions of their own. If the answer is not available on the scientist profile the group can speculate as to what their answers could be.
- 6) The Group B scientists will stay seated and the Group A students will rotate between each scientist, asking questions. Move students on to a new scientist every few minutes.

Plenary: 10 minutes

Go over the questions for each scientist and discuss the scientists as a class. Did students feel they got to know the scientists? What are their opinions of each person? What would they like to ask the scientists? Now may be a good opportunity to draft some questions for ASK and CHAT.

Suggested Homework:

Log in to imascientist.ie and post at least one question in ASK.

Extension: Read some of the other questions and answers on the site. Who do you think should win? Cast your vote (you can change it later if you change your mind).

Suggested adaptations

Support:

Do the activity as a class with the 'scientists' at the front. Two or three students play each scientist.

Extend:

Students ask their own questions rather than Suggested Questions to the 'scientists'. Go onto the site and submit some questions in ASK for the real scientists.

Lesson 2 — Meet the Scientists (alternative version)

This alternative version of Lesson 2 allows for more independent learning if students have access to computers.

Lesson objectives:

- Get to know scientists and realise they are normal people!
- Explore the site and interact with real scientists using ASK.
- Broaden the students' perceptions of scientists and contribute to students' science capital.

Curriculum links:

- Select, organise and present scientific information.
- Evaluate scientific information and make informed judgements from it.

Resources:

- ICT suite or a computer and projector in the classroom so students can work together with the teacher leading.

Starter: 10 minutes

Recap the *I'm a Scientist* activity, and what can be done on the site — reading profiles, ASK, CHAT and VOTE (see front page of booklet). Or use 'fold game' starter from the scientific speed-dating version of Lesson 2 on page 4.

Activity: 35 minutes

- 1) In pairs, mindmap suitable questions students want to ask the scientists, then discuss as a class.
- 2) Send students to imascientist.ie to log in using their login cards (independently or in pairs). Read the profiles of each scientist in your zone.
- 3) Write down three interesting things from the site.
- 4) Post a question in ASK.
- 5) Read some of the other questions and answers on the site. Who do students think should win? Cast votes (students can change their vote later if they change their mind).

Plenary: 5 minutes

Students present their three interesting things to the class, and which scientist they want to win or who they would not vote for and why. Are the scientists as the students expected? If not, how are they different?

Suggested Homework:

Pick one of the scientists. Find out about their area of science and write about it, including:

- What they study
- Where they do their research
- A famous scientist from the area they study

Extension: Continue reading the questions and answers already on the site. Comment or post more of your questions in ASK. If you've changed your mind about who you want to win, change your vote.

Suggested adaptations

Support:

Give more assistance in thinking up questions. Use the criteria from Lesson 1: You're the Judges! and Suggested Questions from Lesson 2: Meet the Scientists as a basis.

Extend:

Allow more freedom when looking at the site. Write a short paragraph about what they find on the site to present back to the class. Justify more clearly which scientist they like best.

Suggested Questions

1. What kind of place do you work?
2. What do you do?
3. What's your favourite band?
4. Do you work alone or as part of a team?
5. How long have you done your job?
6. What is your research trying to find out?
7. Will your research affect people?
If so how many people and in what way?

These Suggested Questions are also available to download and print at imascientist.ie/resources-for-teachers

Lesson 3: Live chat

Lesson 3 — Live chat

Chat to real scientists in our online chatroom.
See page 7 for more information on preparing for this lesson.

Lesson objectives:

- Interact with scientists using CHAT.
- Increase the relevance of science to everyday life.
- Broaden the students' perceptions of scientists and science and contribute to students' science capital.

Curriculum links:

- Apply principles and concepts to unfamiliar situations.
- Make informed judgements about science.

Resources:

- Live chat booking (important: book in advance at imascientist.ie/live-chat/).
- Access to the website for individuals or pairs
- List of the top five criteria chosen in Lesson 1: You're the Judges!

Starter: 5 minutes

Go over the important criteria from Lesson 1: You're the Judges!, Suggested Questions from Lesson 2: Meet the Scientists and/or questions students have prepared.

In this live chat lesson the students can get to know the scientists better, in real time. Remind them that they have a big responsibility, because each student gets a vote to decide which scientist wins €500.

Note – Scientists are busy and working full time. There are usually around three scientists online for each chat so try to manage the class's expectations. The important thing is that they get to connect with scientists and find out they are human too. If students were hoping to chat with a specific scientist, encourage them to post their question(s) to that scientist in ASK instead.

Activity: 35 minutes

- 1) Log on to the website (imascientist.ie) using the details on the students' log in cards.
- 2) Live chat with the scientists, as individuals, pairs or small groups. Students should be encouraged to tag their messages by clicking on a scientist's name before sending a question.

Plenary: 10 minutes

- Students cast their vote for who they think should win.
- Are there any other questions they didn't get to ask? Post these in ASK.
- Sum up what students have learnt about the scientists. Did students learn anything that surprised them?
- Remind students that they can use the site to ask questions at home if they have access to the internet.

Suggested Homework:

Pick one of the scientists' areas of work. Find out more about an issue facing that area — either research an issue that came up in the live chat, or write about the biggest issue facing that area of work. Post a question about this issue in ASK.

Suggested adaptations

Support:

Suggest questions or ask scientists the mindmapped questions from Lesson 2: Meet the Scientists.

Extend:

Read scientists' profiles to ask questions about their specific areas of study — what can students learn about the different projects scientists are working on?

Live chats

Live chats are consistently the most popular part of the event — for students, for scientists, and even for teachers!

“Normally they start putting their coats on five minutes before the end but [when doing the live chats] they were in their chairs still after the bell went.”

Michelle Crooks, teacher, King Arthur’s Community School

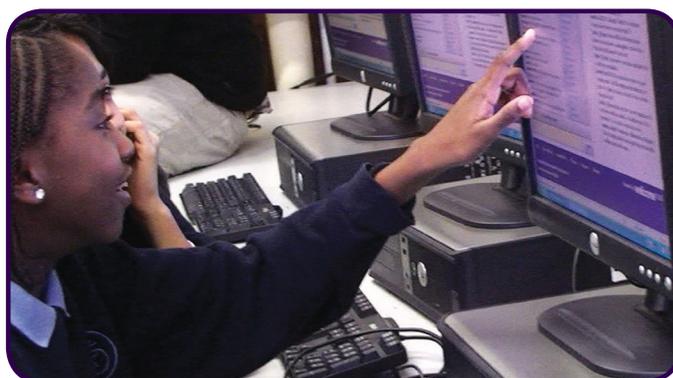
Before live chat lesson

- Book IT suite/provide internet access for students
- Book live chat — please use the online booking form at imascientist.ie/live-chat
- **Test live chat** — come along to our drop in session to test that the chat will work on your school system. You’ll receive emails about when this will be nearer the time. To make sure students can access the chat, whitelist the sites below on your school system.
- Do some preparation with your class (we suggest Lesson 1: You’re the Judges! and Lesson 2: Meet the Scientists).

We have had reports that some school networks have been blocking the live chat, meaning some students are having difficulty accessing them.

To make sure they will work on your system, add these URLs to your school network whitelist. If your school has an IT technician, please ask for this list of URLs to be added to the school’s whitelist:

[*imascientist.org.uk](https://imascientist.org.uk)
[*imascientist.ie](https://imascientist.ie)
[*.imanengineer.org.uk](https://imanengineer.org.uk)
[*.imamedic.uk](https://imamedic.uk)
[*.googleapis.com](https://googleapis.com)
[*.gserviceaccount.com](https://gserviceaccount.com)
gstatic.com
firebaseapp.com
firebaseio.com
[*firebaseio.com](https://firebaseio.com)



During lesson

Explain that students are going to chat online with some real scientists. Remind students the scientists have given up their time to chat with them today. Encourage them to interact with the scientists, and not just amongst themselves. Prompt students to express their opinions on the work that the scientists do.

Tell students there will be a moderator in the chat who will help keep the conversation on track, remove inappropriate comments and ban disruptive pupils.

Log in using your Teacher account to:

- Follow and join the chat — anything you say will have a special teacher icon by it.
- Remove inappropriate comments with the  icon next to a chat line.
- Temporarily ban students with the  icon next to a chat line.
- Download a copy of the transcript once the chat has ended.

Note — should you need to identify a student during the chat, look at the top right-hand corner of their computer screen to see their username.

After the chat, remind students to post any unanswered questions in ASK, and to VOTE for their favourite scientist to make sure they stay in the competition. Check your zone daily in the second week to keep track of evictions and find out which scientist wins.

Teacher tips — other teachers' experiences

After every event we ask teachers what tips they would give to a teacher running *I'm a Scientist* for the first time. Here are the most common answers, in order of popularity:

1. Spend more time preparing students

Run lessons 1 and 2 before the live chat lesson to prepare students.

"We have just had our live chat. It was the best yet I think, because we had spent much more time on preliminary activities so we had loads of questions to ask."

"Prepare the class more, carry out the discussions first. Get them thinking about what scientists do, and the decisions they have to make."

2. Involve more students

"Organising the event for the whole of year 8 meant that everyone could enjoy the benefits... Different classes had similar experiences and they wanted to discuss it."

3. Encourage students to be creative with their questions

There are better ways to use the activity than using the scientists as Googlers.

"Get the students to investigate the interests and subject of study of each scientist, so they can ask appropriate and useful questions."

After the event

- Please do fill in the feedback survey we email to you. You are the expert on what happened in your classroom and your feedback will help us to continuously improve the activity
- Please also encourage your students to fill in the survey on their profiles after the activity.
- In each zone the scientists and moderators pick a student winner, someone who asked good questions and really engaged with the activity. The student winner will get a certificate and €20 gift voucher prize — we'll let you know if this is one of your students.

Contact

If you need any help please email admin@imascientist.ie or call +44 (0)1225 326892.

For further information please visit: imascientist.ie/teachers