

## Teacher Notes

### What is 'I'm a Geoscientist'?

I'm a Geoscientist is an online event where you get to meet and interact with real scientists. It's in the form of a game show style competition between the scientists. Your students submit questions which the scientists will try to answer by the next day. These stay on the site so you can read the questions other students have already asked, and the scientists' answers. You may also book into a chatroom for 30 minutes where your students get to chat with scientists, ask them questions and learn more about them.

Your students get to vote for the scientist that they think should win a prize of €500 to promote their research. In addition, one student will be selected as a winner and receive a certificate for asking the best questions and engaging with the scientists.

Log in to your profile page on [imageoscientist.eu](http://imageoscientist.eu) using the log in details we sent you. There you will find instructions to create a student registration link which your students can use to create their own accounts on the I'm a Geoscientist site.

Once your students are on the site they'll be able to do the following:

**Meet the Scientists** – there are five scientists competing for your students' votes. They have each posted a profile and answered some set questions. (*You will hopefully cover this in more detail in Lesson 2: Meet the Scientists.*)



**ASK:** Your students have the chance to ask the scientists whatever question they like. Scientists will try to answer by the next day and the students will get an email to let them know it has been answered. Questions and answers remain on the site so ensure your students have a look around and see what others have asked before they pose their own question. (*Lesson 2: Meet the Scientists will help prepare.*)



**CHAT:** Live chats are the chance for your class to ask questions and let scientists know their opinions on the scientists' research. (*Lesson 3: Live Chat has more details on this.*)



**VOTE:** Your class vote for the scientists they think should win a prize of €500 to promote their work. Your class can vote at any time and their final vote in each of the four rounds is the one that counts. In the second week the scientists are evicted day by day until the winner is announced on the Friday.



## How much time should you spend participating in the event?

### Maximum: 5 hours

Including interacting with scientists on the website and all the lesson plans, there is enough material for 5 hours of lessons, depending on what you decide to use.

### Average: 2–3 hours

Most teachers will do lessons 1–3 and have one live chat.

### Minimum: 2 hours

This will usually be 1 introductory lesson, 1 homework of reading more about the scientists and submitting questions and 1 lesson of live chat with the scientists.

### Be warned:

When asked what they would do differently next time, most teachers who took part in the UK's I'm a Scientist, Get me out of here said, "*spend more time on I'm a Scientist.*"

### Eviction update:

In the second week of the event, evictions take place daily from Tuesday. During this week, even in lessons not on I'm a Geoscientist, we recommend you take five minutes at the start or end of the lesson to check the website ([imageoscientist.eu](http://imageoscientist.eu)) to see who has been evicted.

## Lesson Plans

There are many ways to use the I'm a Geoscientist event. We've put together three lesson plans. These lesson plans were developed in consultation with teachers and have been 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 an understanding of data, evidence, and theories alongside practical enquiry and communication skills, as well as an understanding of how science is applied.

**Further resources:** Online at [imageoscientist.eu/teachers](http://imageoscientist.eu/teachers)

**Lesson 1 - "You're the Judges!"** Without putting the event in context, 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 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 Geoscientist. Choose and rank criteria by which to judge the scientists.

#### **Learning objective:**

- Consider a range of criteria and understand that different (important) values may need to be weighed against each other.

#### **Other learning outcomes:**

- Encourages students to consider criteria to use in deciding which scientist to vote for and how to judge their work.
- Promotes use of sophisticated criteria, not trivial issues.
- Gives students ownership of criteria.

#### **Curriculum links:**

- Introduction to developing an understanding of data, evidence, and theories alongside practical enquiry and communication skills, as well as an understanding of how science is applied.
- Consider ethical, social and practical aspects of science.

#### **Resources:**

'Lesson 1 – Drag & Drop criteria list' at [imageoscientist.eu/teachers](http://imageoscientist.eu/teachers)  
Access to I'm a Geoscientist website ([imageoscientist.eu](http://imageoscientist.eu))

#### **Starter: 5 minutes**

Explain the I'm a Geoscientist event briefly (show the site 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 or use the Drag & Drop list.
- 2) Get the class to whittle down the most important criteria. Write the five criteria on the board.
- 3) Get the class to rank the five most important criteria.

#### **Plenary: 15 minutes**

- Brainstorm any other criteria that aren't on the list, that students might consider important when judging scientists.
- Overall message: this will help you judge the scientists as scientists.

#### **Suggested Homework:**

Look at the website and see how each scientist performs on the five most important criteria your class selected.

### **Suggested adaptations**

#### **Support:**

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

#### **Extension:**

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

## Lesson 2 - Meet the Scientists

Scientific speed-dating, a fun, exciting way to imagine meeting the scientists.

### Learning objective:

- Get to know the scientists through their profiles in-depth.

### Other learning outcomes:

- Stimulate interest and raise questions they may want to ask.

### Curriculum points covered:

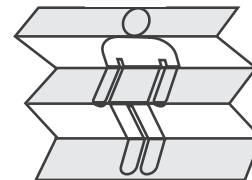
- Select, organise and present scientific information.
- Evaluate scientific information and make informed judgements from it.

### Resources:

- List of the top five criteria decided on in Lesson 1: You're the Judges!
- Five copies of the Assigned Questions Sheet available at [imageoscientist.eu/teachers](http://imageoscientist.eu/teachers).
- Printed downloads of each of the scientists' profiles.
- Paper and pens for drawing a scientist.

### Starter: 10 minutes

- 1) Tell students they will be getting to know the scientists. Split students into five groups and number them 1-5.
- 2) Ask them to think about what they imagine scientists are like. Draw a scientist as a group. Starting at the top, 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.
- 3) Unfold and look at the pictures – any common themes? Do they think scientists are really like that?
- 4) Assign each group a scientist from your zone and hand them a print out of the scientist profile from the I'm a Geoscientist website. Get each group to read out their scientist name and job role.
- 5) Remind the students of the five most important criteria they chose in Lesson 1: You're the Judges! for rating scientists.



### Activity: 30 minutes

- 1) Get the students to read through their scientist's profile as a group.
- 2) Split each group in half, into A's and B's, to end up with ten groups for scientific speed-dating. Those in Group A are students who will go around and question the scientists. Group B are the scientists who will use the printed scientist profile pages on which to base their answers.
- 3) Hand the Group A students the list of Assigned 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.
- 4) The Group B scientists will stay seated and the Group A students will rotate between each scientist, asking questions. Ring a bell every 3 minutes to move the students on to new scientists.

### Plenary: 10 minutes

All the students discuss the scientists as a class. Go over the questions for each scientist to make sure they got the right answers. Did they like the questions? Did they feel they got to know the scientists? Would they ask similar questions or others?

### Suggested Homework:

Bearing in mind the five most important criteria decided on in Lesson 1: You're the Judges! think of three questions to ask the scientists. Research how a famous scientist (e.g. Stephen Hawking, Isaac Newton, Marie Curie, Dorothy Hodgkin) would answer your three questions.

## Suggested adaptations

### Support:

Do the activity as a class with the five scientists at the front. 2 or 3 play each scientist.

### Extension:

Concentrate more on their own questions rather than assigned questions. Go back onto the site and submit some questions for scientists.

## Lesson 2: Meet the Scientists (alternative version)

## Lesson Plans

### Lesson 2 – Meet the Scientists (alternative version)

This is an alternative version of Lesson 2 that does not involve scientific speed-dating and student movement around the classroom.

#### Learning objective:

- Get to know scientists and realise they are normal people!

#### Other learning outcomes:

- Stimulate interest and raise questions they may want to ask.
- Opportunity to interact with real scientists.

#### Curriculum points covered:

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

#### Resources:

- Pupils own pen and exercise book.
- A computer and projector in the classroom so students can work together with the teacher leading.

#### Starter: 10 minutes

Recap the event, and what can be done on the site. You can also use the 'drawing game' starter from the scientific speed-dating version of Lesson 2.

#### Activity: 35 minutes

- 1) As a class brainstorm suitable questions that they want to ask to get to know the scientist. Get students to write them all down. Appoint a question to each pair to ask when they use the site.
- 2) Take students online, (in pairs or threes in front of a computer or all looking at the website together on projector) and read the profiles of all the five scientists in your zone and the information on the site. See if the impression they get of them is different from what they expected. Decide which scientist they like the best.
- 3) Write down three interesting things they find out on the site.
- 4) Ask a brainstormed question, and one of their own for the scientists to answer when they use the site.
- 5) Present their three interesting things to the class, and for which scientist they intend on voting, or for which they would not vote.

#### Plenary: 5 minutes

Discuss what they found out – did anything surprise them?

#### 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

### Suggested adaptations

#### Support:

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

#### Extension:

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.

### Assigned 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?

## Lesson 3: Live chat

### Lesson 3 - Live chat

Chat to real scientists in our online chatroom.

#### Learning outcomes:

- Broaden the students' perceptions of scientists and science.
- Increase the relevance of science to everyday life.

#### Other learning outcomes:

- Get to know the scientists.
- Prompt more thoughtful questions.
- Opportunity to interact with real scientists.

#### Curriculum points covered:

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

#### Resources:

- Live chat booking (important).
- Computer suite (or whole class do the activity together via projector screen).

#### Starter: 5 minutes

Go over the important criteria from Lesson 1: You're the Judges!, Assigned Questions from Lesson 2: Meet the Scientists and/or brainstormed questions from the alternative Lesson 2. 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. It's likely that not all 5 scientists will be able to make every live chat booked so try to manage the classes' expectations. Usually expect 2 or 3 scientists per chat. The important thing is that they get to 'meet' real scientists and find out they are human too.*

#### Activity: 35 minutes

- 1) Log on to the website ([imageoscientist.eu](http://imageoscientist.eu)) with chosen username and password, either individually as students or as the teacher if the whole class are doing it together via projector screen.
- 2) Live chat with the scientists, as individuals, pairs or small groups.

#### Plenary: 10 minutes

- Sum up what they have learnt about the scientists
- Are there any other questions they didn't get to ask?
- Did they 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 if none arose write about the biggest issue facing that area of work.

## Suggested adaptations

#### Support:

Ask scientists the brainstormed questions from Lesson 2: Meet the Scientists and write down the answers the scientists give to them.

#### Extension:

Less reliance on Assigned Questions from Lesson 2: Meet the Scientists.

## Live chats

*“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 computers/provide internet access for students
- Book live chat - please use the online booking form at [imageoscientist.eu/live-chat](http://imageoscientist.eu/live-chat).
- Do some preparation with your class (we suggest Lesson 1: You’re the Judges! and Lesson 2: Meet the Scientists).



### During lesson

**Explain to your students that they are going to talk in a chatroom with some real scientists. Please encourage them to interact with the scientists, and not just amongst themselves. Encourage students to express their opinions on the work that the scientists do. Tell them there will be a moderator in the chatroom who will help keep the conversation on track and will block disruptive pupils.**

- Log in and use your Teacher account to join in the chat – anything you say will have an academic hat icon by it.
- Live chats are consistently the most popular part of the event – for students, for scientists, and even for teachers!
- They are fun and give immediate contact between scientists and students. Students realise scientists are ‘real people’ and feel connected to them.
- Many teachers tell us that quieter students are more active in live chats than face to face and it can be an interesting change to class dynamics.
- Don’t be embarrassed if your class are boisterous or mess about. The moderators will deal with this.
- Remind your students to ask any questions the scientists didn’t manage to answer during the chat under ASK, and to VOTE for their favourite scientist to make sure they stay in the competition.

## Teacher tips - other teachers' experiences

In every event we ask teachers in the feedback survey what they would do differently if they ran the event again. 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

*"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

### 3. Encourage your students to be creative with their questions

There are better ways to use the event than using scientists as a replacement for Google.

## After the event

- Please do fill in the feedback survey we email you. You are the expert on what happened in your classroom. Your feedback will help us to continuously improve the event.
- Please also encourage your students to fill in the student survey on their profiles after the event.
- In each zone the moderators pick a student winner (who they think has asked good questions and really engaged with the event). They get a certificate, and we'll let you know if this is one of your students.
- To help all the students feel they have done something important, we have created student participation certificates. Individual ones can be downloaded from the students' profile pages.

## Contact

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

For further information please visit: [imageoscientist.eu/teachers](http://imageoscientist.eu/teachers)