
THE ROYAL SOCIETY
SUMMER SCIENCE EXHIBITION
WELCOME PACK
THE ROYAL SOCIETY

Welcome to the Summer Science Exhibition 2019

Thank you for accepting our invitation to exhibit at the Summer Science Exhibition in July next year. We are delighted to welcome you to Planning Day.

This pack and our accompanying website is designed to help you get the most out of the day and begin to organise your thoughts, team and exhibit.

Though we understand that Planning Day can be overwhelming, please note that the team are here to help throughout the year, and that plenty of information can be found on our website, including a copy of the slides used in today's presentation.

We look forward to working closely with you over the coming year. Please don't hesitate to chat to us today, or get in touch at any point after the day if you have any questions.

Amy Fry
Senior Public Engagement Officer

Telephone: 0207 451 2582
Email: exhibition@royalsociety.org
Website: royalsociety.org/exhibitors

Planning Day Programme

Monday 26 November 2018, The Royal Society, Wolfson suite

10.30am – 10.45am	**Arrival and refreshments**	
10.45am – 10.50am	**Welcome** *Tracey Hughes, Head of Marketing and Public Engagement, The Royal Society*	
10.50am – 11am	**Introductions** *Amy Fry, Senior Public Engagement Officer, The Royal Society*	
11am – 11.15am	**Summer Science Exhibition Overview** *Amy Fry*	
11.15am – 11.25am	**Timelines, obligations and tools** *Amy Fry*	
11.25am – 11.35am	**Break**	
11.35am – 12.05pm	**Tour of the Exhibition space** *Public Engagement team*	
12.05am – 12.35pm	**Working with your institution** *Mhairi Stewart, Head of Public Engagement with Research, University of St Andrews*	
12.35pm – 12.50pm	**Planning first steps** *Amy Fry*	
12.50pm – 1.30pm	**Lunch**	
1.30pm – 1.40pm	**Health and Safety when planning your exhibit** *Amy Fry and Amanda Meader, Head of Facilities, The Royal Society*	
1.40pm – 1.55pm	**Developing your exhibit** *Kenneth Boyd, Technical Design Consultant*	
1.55pm – 2pm	**Overview of the next sessions** *Amy Fry*	
2pm – 3.40pm	**Feedback on your applications** *Public Engagement team, Wolfson 2 and Marble Staircase* (See separate timetable on page 10)	**Website, social media and promotion** *Digital team*, *Wolfson 3* **Working with the press** *Press team, Wolfson 1* **Engaging with school groups** *Education Outreach, Wolfson 3* **Exhibit design** *Kenneth Boyd, Technical Design Consultant, Wolfson 1*

3.40pm – 3.50pm	**Break**
3.50pm – 4.05pm	**Exhibition week logistics** *Amy Fry*
4.05pm – 4.25pm	**Been there, done that! The views of 2018 exhibitors** *Samantha Terry, King's College London* *Emanuele Galiffi, Imperial College London*
4.25pm – 4.45pm	**Staff and previous exhibitors Q&A** *All speakers*
4.45pm – 5pm	**Important next steps** *Amy Fry*
5pm – 6pm	**Drinks reception (Mercer Room in Basement)** *Everyone*

Planning Day 2019

Exhibitor Attendees

Exhibit Title	Institution(s)	Planning day attendees		
A Periodic Table for Life	University of Warwick and University of Oxford	Professor Peter Sadler	Professor Ros Rickaby	
Art of Isolation	Lancaster University	Benjamin Robinson	Alex Robson	
Assuring the earthquake safety of nuclear reactors in the UK	Bristol University	Dr Luiza Dihoru		
BepiColombo: X-ray eyes on Mercury	University of Leicester	Adrian Martindale		
Breathing with your Brain	University of Oxford	Sarah Finnegan	Lucy Marlow	
Do you feel me? Mirror-Sensory Synaesthesia	University of Sussex/Goldsmiths	Natalie Bowling		
Exploring the Universe in the search for ourselves	University of St Andrews and Leeds Beckett University	Dr Martin Dominik	Dr John Elliott	
Lighting the way to a healthier brain after birth	UCL and University College London Hospitals	Dr Ilias Tachtsidis	Subhabrata Mitra	
Living on the Moon!	The Open University	Dr Mahesh Anand	Dr Ben Dryer	Dr Sungwoo Lim
Mutant Knockout	Royal Veterinary College	Lucy Eckersley	Amanda Gibson	
Reanimating Cancer	University College London	Dr Paul Sweeney	Dr Claire Walsh	
Robotic Remedies for a Safer World in Offshore Energy	Orca Hub and Heriot-Watt University	Lindsay Wilson	Associate Professor Dr Katrin Solveig Lohan	
Seeing with Atoms	University of Cambridge	Dr Lisa Jardine-Wright	Dr Andrew Jardine	
Spotlight on Chemistry	University of Nottingham	Sir Martyn Poliakoff	Melissa Richardson	
Studying the 2D world: Why some atoms are more important than others	Cardiff University and University College London	Dr David Morgan	Dr Robert Palgrave	
Super biomaterials to fight super bugs	University of Nottingham	Professor Morgan Alexander	Associate Professor Kim Hardie	
Take a bite out of climate change	University of Manchester	Sarah Bridle	Alison Fletcher	

The invisible shield from the centre of the Earth	University of Liverpool	Annique van der Boon	Andy Biggin	
The Quest for the Chemical Origin of Life	MRC-LMB	Claudia Bonfia	Liz Pryke	
Trusted Autonomous Vehicles	University of Leicester	Jan Oliver Ringert	Nervo Verdezoto	
Wooden Skyscrapers: how high-tech timber could change the way we live	University of Cambridge	Michael Ramage	Darshal Shah	

Staff Attendees

Public Engagement team

Amy Fry	Senior Public Engagement Officer
Tracey Hughes	Head of Marketing and Public Engagement
Katie Weeks	Public Engagement Manager
David Chapman	Assistant Public Engagement Manager
James Upton	Public Engagement Officer
Daniella Afeltra	Public Engagement Officer

Press team

Omar Jamshed	Press Officer
Danielle Haddad	Assistant Press Officer

Digital team

Rob Rutter	Digital Marketing Manager
Ruth Ford	Digital Content Editor
Alex Mee	Social Media Officer

Education Outreach team

Jo Cox	Education Outreach Manager
Elizabeth Chambers	Education Outreach Officer

Facilities team

Amanda Meader	Head of Facilities

Summer Science Exhibition 2019

Opening Times

Please note that the timings listed below are the public opening hours for the Exhibition.

During the exhibition, exhibitors are allowed to be on site one hour before the exhibition opens and remain behind for no more than 30 minutes after the Exhibition closes to the public.

Exhibitors must be at their exhibits at least 5 minutes before the exhibition opens.

SET UP

Date	**Time**	**Details**
Friday 28 June	2pm – 4pm	Exhibitor deliveries ONLY
Saturday 29 June	10am – 6pm	Exhibitor delivery and set-up (*Last delivery 5pm)*
Sunday 30 June	10am – 6pm	Exhibitor delivery and set-up (*Last delivery 4pm)*

EXHIBITION WEEK

Date	**Time**	**Details**
Monday 1 July	9.30am – 11am 11am – 6pm	Press preview of exhibition Exhibition is open to the public and registered school groups
Tuesday 2 July	10am – 4pm 6pm – 10pm	Exhibition is open to the public and registered school groups Summer Science Lates evening (adult audience)
Wednesday 3 July	10am – 4.30pm 7pm – 10pm	Exhibition is open to the public and registered school groups Soiree 1
Thursday 4 July	10am – 4.30pm 7pm – 10pm	Exhibition is open to the public and registered school groups Soiree 2
Friday 5 July	10am – 7pm	Exhibition is open to the public and registered school groups

Saturday 6 July	10am – 6pm	Exhibition is open to the public
Sunday 7 July	10am – 6pm	Exhibition is open to the public

BREAK DOWN

Date	**Time**	**Details**
Sunday 7 July	6pm – 8pm	Exhibitors can begin to pack down their exhibits
Monday 8 July	8am –12pm	Exhibitors dismantle and collect their exhibits

Please note, all exhibit materials must be off site by 12pm on Monday 8 July. We will be unable to store items in the building beyond this.

Summer Science Exhibition 2019

Key Dates

For more information, please see **royalsociety.org/exhibitors**. It is essential that these deadlines are met.

JANUARY	
w/c 7 and 14	Initial call with Royal Society and university (exhibit team, press and public engagement contacts on both sides) - to be booked in
18 January	Deadline **Form A** (exhibit overview, promotion, contact details, funding and availability for audience engagement training)
FEBRUARY	
w/c 4 February	Confirmation of allocated exhibit dimensions
15 February	Deadline for applications to Exhibitor Support Fund
MARCH	
1 March	Exhibitors informed of Exhibitor Support Fund application outcome
8 March	Deadline **Form B** (partnerships, digital, exhibit space and soiree invites)
12 March	Audience Engagement and Communication Training 1 at the Royal Society
20 March	Audience Engagement and Communication Training 2 at the Royal Society
APRIL	
5 April	Exhibitors informed of their allocated exhibit space
26 April	Deadline **Risk assessment, final exhibit plan** and **public liability insurance**
w/c 29 April	Progress call with Royal Society - to be booked in
MAY	
Start of May	Exhibition website and supporting events programme launched
w/c 6 May	Progress call with Royal Society - to be booked in
31 May	Deadline **Form C** (operations, deliveries and arrivals, staffing)
JUNE	
w/c 17 June	Exhibition briefing packs to be sent to exhibitors

If you have any questions about the deadlines or content within them, please contact exhibition@royalsociety.org or 0207 451 2582.

Planning Day 2019

Exhibitor chat timetable

Time	**Amy Fry** *(Wolfson 2)*	**Katie Weeks** *(Wolfson 2)*	**David Chapman** *(Marble Staircase)*	**Tracey Hughes** *(Wolfson 2)*	**Jamie Upton & Daniella Afeltra** *(Marble Staircase)*
2pm	BepiColombo: X-ray eyes on Mercury	Spotlight on Chemistry	Living on the Moon!	The Quest for the Chemical Origin of Life	Lighting the way to a healthier brain after birth
2.20pm	A Periodic Table for Life	Take a bite out of climate change	Mutant Knockout	The invisible shield from the centre of the Earth	Studying the 2D world: Why some atoms are more important than others
2.40pm	Super biomaterials to fight super bugs	Robotic Remedies for a Safer World in Offshore Energy	Exploring the Universe in the search for ourselves	Wooden Skyscrapers: how high-tech timber could change the way we live	Seeing with Atoms
3pm	Reanimating Cancer	Assuring the earthquake safety of nuclear reactors in the UK	Do you feel me? Mirror-Sensory Synaesthesia		
3.20pm	Art of Isolation	Breathing with your Brain	Trusted Autonomous Vehicles		

At the same time as the exhibitor chats, there will also be drop-in discussions taking place with the Royal Society Digital, Press and Education Outreach teams, as well as a surgery on Exhibit design. This is a great opportunity to find out more about the different teams you will be working with leading up to the exhibition, so do try and visit all the groups in between your chats with the Public Engagement team.

Drop in discussions:

- ☐ **Website, social media and promotion** (*Wolfson 3)*
- ☐ **Working with the press** *(Wolfson 1)*
- ☐ **Engaging with school groups** *(Wolfson 3)*
- ☐ **Exhibit design** *(Wolfson 1)*

Map

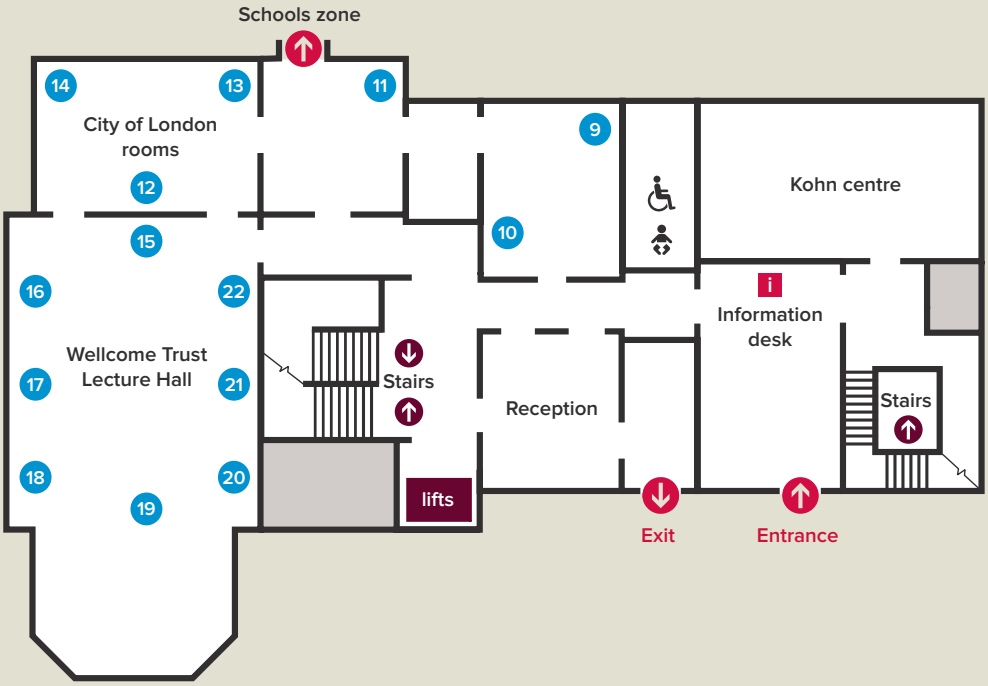
Basement

Exhibits

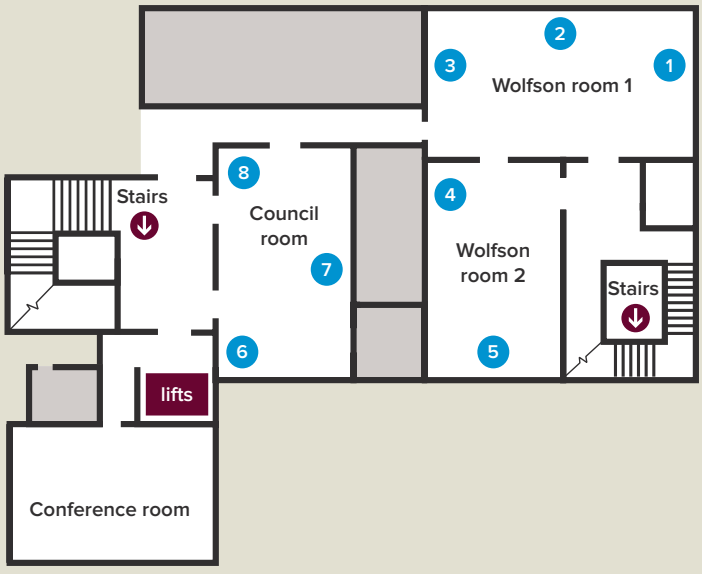
General information

- Baby changing facilities
- Water fountain
- Cloakroom

Ground floor



First floor



Social Media at the Summer Science Exhibition

Social media is an excellent way to promote your exhibit in the build up to the exhibition and throughout the week, to prospective attendees and those who are following it online across the globe.

Follow the Royal Society on social media

- Twitter - @royalsociety
- Facebook - @theroyalsociety
- Instagram - @theroyalsociety

Before the Exhibit

- Decide if you are going to create new accounts for your exhibit.
    - This will allow you to post as often as you need to and gives you control of the message.
    - Alternatively, identify personal or partner accounts that will post for you.
- Share your account handles with the Royal Society and any partner organisations including your main university social media team.
    - We want to share your posts with our audience, but we cannot share everything. Tag us in your best content, or send us a message to let us know about a great post.
- Share regular updates
    - Tailor these to your platform, e.g. strong images for Instagram, short videos on Twitter.
    - Think visually; posts with videos tend to do better than just images, and images tend to perform better than plain text.
    - Who is your audience? Plan content that will appeal to them.
- Be social; it's not enough to post your content, talk to your audience when they talk to you.
    - Ask your audience questions.
    - Reply to their comments.
    - Find accounts similar to you and talk to them.
    - Like and share posts from other Summer Science exhibits.
- Use the tag #summerscience.
    - This helps people, the Royal Society included, find your content and share it with their audience.
    - Check #summerscience (or follow it on Instagram) for opportunities to like, post or share.
    - Have fun, explain the science.

During the exhibition

- Make sure you tag your posts on Twitter, Facebook and Instagram= with #summerscience.

- Be social; reach out to other exhibits to learn about them; like their posts; reply to comments, let us know how it's going. This gives you a reason to post more frequently and encourages people to interact with you.

- Think visually; share photos and short videos that explain the science behind the fun.

- We will have a twitter wall on a large TV display featuring all tweets on the hashtag #summerscience making your posts more easily discoverable to a wider audience.

- Tag any relevant partner institutions from the list you've created, either in the image or posts.

- Post something new each day which explains the science behind your exhibit
    - research papers (if public-facing)
    - website
    - key facts
    - interactives
    - multimedia

- During the week, the Society will be creating video content around the Exhibition that we can use for the rest of the week. Tell us about the best shots and videos we could create around your exhibits.

- Avoid photos of any school pupils who have no photography stickers. Make sure you understand how consent for images and video works.

- We'll be coming round on the Monday for 30-second pieces to camera with each exhibitor team for a quick-fire science pitch about the team and their research. How would you explain your exhibit? What do you want people to take away?

The more material, the better. Let's spread the word as far and wide as possible online and show the great science on display at the Exhibition.

How to make a good video

We will not require you to make an exhibitor video for the 2019 Summer Science Exhibition, however in case you wish to create digital content around your research, we've compiled some useful guidance below.

A good video will tell your story and make people excited about your science. This is a challenge in the competitive marketplace of YouTube which has around 100 hours of video uploaded every minute and where over 6 billion hours of video are watched every month. However, YouTube has more than 1 billion visitors each month, which makes it an ideal place to achieve views and reach a bigger public audience.

A good video about your science can appeal to popular science editors, raise awareness about your work in the mainstream and online media, and enhance engagement with the general public and early-career/next-generation scientists who have grown up as digital natives. But – you must tell a good story.

1. **The brief: telling your story**

Before you write a brief consider what makes a good story:

- Why is your science important to people?
- What would people find surprising, mysterious or awesome about your work?
- Is the content relatable to the lives of everyday people as well as to scientists?
- What is the emotional value or reward for watching your video?

Try to remember that 'why' often has more impact than 'who' or 'what' in your story. Focus on 'why' to highlight the big ideas behind the science, such as 'Why does it matter?', 'Why is it interesting?' and 'What don't we know about this and why?'

Your story needs to appeal to different audiences. This might sound tricky but try to remember that most people are drawn to the pleasure of finding things out.

Scientists are naturally curious people and curiosity is universally relatable and engaging whether the viewer is a Royal Society Fellow, fellow researcher, science-interested layperson or school pupil.

2. **Format and length**

Think about the format for your video story. Watching a talking head for five minutes is a lot to ask. In fact, watching any video for a full five minutes is a lot to ask of anyone on YouTube. Think about the average time it takes to watch a television advert and how the advertisers convey an overall concept in 30 seconds. The ideal length for a promotional video is three minutes. Remember, we might like to share these on Facebook where the average video may be viewed for only one minute!

Also, include action shots, attractive motion graphics and exciting research images with a voiceover in the video to make your story interesting to watch.

3. Producing your video

People have become accustomed to seeing premium video content on YouTube and the internet whether from school and college students or world-leading brands. Videos that are poorly produced and edited don't invite confidence in the message being conveyed. You could commission a professional videographer to film, produce and edit your video, but if you are making it yourself then remember these things:

- Camera: Buy, borrow or rent a camera that can record 1080p HD with unlimited recording time; other useful features include a remote control and a mic in socket. Use a tripod to ensure the camera is steady, the subject is in focus, and any movement is intentional and smooth. Keep camera movements (panning and zooming) to a minimum.

- Audio: If your video is difficult to hear then the viewer will give up. All speech should be clearly audible. Reduce background noise and interference as much as possible. Audio should be free from a hum or buzz – make sure you place the microphone close to the speaker.

- Lighting: Videos should be properly lit, make sure that your subject isn't in shadow or overexposed. Avoid light sources behind the subject, such as a large window or sunlit backgrounds. If you can't use additional lighting and your subject is too dark, change the shot.

- Environment: Try to film interviews in clean and not distracting locations, avoiding ugly/cluttered walls or shelves. Alternatively, throw the background out of focus by setting the interviewee several feet in front of it.

- For interview-style videos, be mindful of the following advice:
    - The composition of the shot is important. The subject should be in the left or right-hand third of the frame, looking across the frame to the farthest edge.
    - Your interviewee should face slightly away from the camera (but not so much as to distract the viewer), speaking to the interviewer who should be sitting immediately beside the camera.
    - The speaker should always address the interviewer rather than the camera.
    - Prepare the questions that will be asked in advance. Make sure 'open' questions are asked and not 'closed' ones which require only a yes-no response. Direct your interviewee to answer questions with complete thoughts, so "how long have you worked in the lab?" is answered with "I have worked in the lab for four years" rather than "four years".
    - Don't be afraid to use close-ups. Filling the frame with the speaker can often look more energetic and interesting than wide-angle shots where the speaker is only a small part of the composition. Be sensitive to the movements of your subject however; if they move around a lot and go out of shot, a close-up may not be appropriate.

- Both interviewer and interviewee should talk conversationally and avoid jargon – “make everything as simple as possible, but no simpler”. People relate better to conversational language that is easy to understand.

- Editing: Do invest in professional video editing software such as Final Cut Pro or Adobe Premiere. Films shouldn’t be longer than they need to be, ideally just a few minutes long. Don’t forget that presentation is important: use a title card to introduce the video and credits card to close the video, and include subtitles when relevant to introduce interviewees or a location.

4. Promoting your video

A high-quality thumbnail image for your video is vital to its success. The thumbnail image is a huge signal to the potential viewer about the content and value of the video, try to use compelling images from your research combined with some text.

After your video has been uploaded to YouTube, spread the word on social media (Twitter, Facebook, Google+, LinkedIn etc). Ask family, friends and colleagues (including your institution) to do the same.

5. Useful examples of popular science videos

These YouTube channels are among the most popularly watched science videos online.

TED-ed https://www.youtube.com/channel/UCsooa4yRKGN_zEE8iknghZA
In a Nutshell https://www.youtube.com/user/Kurzgesagt
Vsauce https://www.youtube.com/channel/UC6nSFpj9HTCZ5t-N3Rm3-HA
Veritasium https://www.youtube.com/channel/UCHnyfMqiRRG1u-2MsSQLbXA
Numberphile https://www.youtube.com/channel/UCoxcjq-8xIDTYp3uz647V5A
Scott Manley https://www.youtube.com/channel/UCxzC4EngIsMrPmbm6Nxvb-A
Backyard Scientist https://www.youtube.com/user/TheBackyardScientist
ASAPScience https://www.youtube.com/channel/UCC552Sd-3nyi_tk2BudLUzA
Oxford Sparks https://www.youtube.com/user/OxfordSparks
Minute Physics https://www.youtube.com/channel/UCUHW94eEFW7hkUMVaZz4eDg
Periodic Videos https://www.youtube.com/user/periodicvideos

Summer Science Exhibition

Advice from previous exhibitors

Planning

- Don’t panic, but start planning in advance. It may sound obvious, but there is no such thing as too early.
- Start thinking about funding early, as it takes longer than expected.
- Refer to the deadlines and form on the exhibitors’ room website in advance, know what you need to have ready at each stage (royalsociety.org/exhibitors).
- Ask the Royal Society team for help. They know the exhibition inside and out.

Your stand

- Centre it around your key messages. Keep it simple.
- Have a stand that is beautiful, with simple interactives and hands-on demonstrations that ‘wow’ and reinforce your key messages.
- Don’t have a stand that is packed with posters of words, it’s not a conference.
- You can overdo it with freebies, think about what reinforces your key messages and is novel, useful or particularly interesting and conversation worthy. You don’t have to give them to everyone, think about competitions or one in a few.
- Be prepared for the exhibit to evolve over the next few months.
- Design the stand to accommodate visitors entering from any direction and don’t rely heavily on a pre-determined sequence, you will not be able to enforce it. Ensure that the public access to it is not blocked by exhibitors.
- Practice interactives/bits of your exhibit with the different exhibition audiences, for example, take your exhibit into a school or test on campus.
- Create something that you can use again. A lot of time and money goes into these, make sure you’re getting something long lasting out of it.

Your exhibit team

- Have one person or a close working team of two in charge of the whole project. The project requires good project management to be completed on time and for you to get as much out of it as possible.
- Build a close-knit team, make sure everyone in the team has been trained and is involved in decision making.
- Think about appropriate staffing levels for your stand and give each team member a ‘role’ whilst on the stand. Too many exhibitors can appear intimidating but make sure you have plenty of people to rotate for regular breaks.
- Be rigorous about taking breaks; there are so many interested visitors that it is tempting to stay there the whole time. You probably need 10 people staffing the

exhibit in shifts. Consider having more people available at the weekend, your team will be tired, and these are our busiest times.
- Have a post-mortem of the day's events over a drink with your team to share techniques that proved effective in attracting or inspiring visitors, and pick up hints from wandering around the other stands.
- Have fun! The visitors engage much better with you when you have a smile on your face and look like you're enjoying yourself. Give yourself breaks, and you'll find it more fun!

Interactions with the public

- Send people to the audience engagement and communication training day that will be able to run a similar workshop with volunteers back at your institution. It is important that everyone is trained.
- Good Public Engagement is a dialogue, make sure you are listening to your visitor and incorporating their thoughts and suggestions into your conversation.
- Know your key messages and how your interactives relate to them.
- Try to gauge a visitor's prior knowledge or interest in the exhibit before launching into the science. This is very important.
- Think about the story behind your exhibit and try to present a problem or driving question first, before explaining the solution. Your audience needs to understand what the point is of what you're doing.
- Prepare some short explanations (that can be extended) in order to engage with passing visitors and invite them to your stand.
- A standard opening script can be useful but don't stick to it too rigidly. Be ready to tailor your explanation to individual visitors' areas of interest.
- On average, a visitor will spend 6-8 minutes at the exhibit, but some will want to chat for a long time, and others will want to quickly move on.
- Consider appropriate responses to typical areas of misunderstanding/controversy or particular public interest.
- Use examples or analogies that relate your research to everyday life.
- The exhibition is a great opportunity to offer advice to young people about careers in science and give detailed information about what your job involves – they may be surprised scientists are 'real people'!
- Focus on younger children too, have something specifically to engage them. The visit is led by the youngest child. If they are bored, the group will move on.

What I should do now?

Next steps

What should exhibitors do before mid-January?

- Not panic – we know it is overwhelming at the beginning, especially after Planning Day. We are here to help, talk to us.
- Decide who will be project managing the exhibit development and meet with your group to discuss ideas and feedback.
- Spend some time going through the Exhibitors' room website. There is a lot of useful information on there so it is useful to familiarise yourself with the content. It may also help to answer questions you might have.
- Review the deadlines, and add all the dates in your diary, they give you an idea of what needs to be done first.
- Look at Form A – this is the first main deadline.
- Secure buy in from your institution – shout about your achievements, and think about the two guests you would like to invite to our soirees.
- Secure your funding and consider if you will need to apply for the Royal Society's support fund.
- Book in your January conversation with us. Please invite your press and public engagement teams to this conversation – it is invaluable.
- Book accommodation if you will need it – it books up fast.
- Book in key researcher time, they will need to be at the exhibition.
- Think about impact. How are you going to get the most out of this for you, your team and your institution? Work with your Public Engagement Team and Comms/Press/PR teams.
- Celebrate, tell people, it's a fantastic achievement!

What will the Royal Society do?

- Contact your Vice Chancellors (or equivalent) to inform them that you are exhibiting
- Contact your Press team so that they are aware of this (please also do the same)
- Contact your Public Engagement team to make sure they are aware of this and encourage them to become involved (please also do the same).
- Send booking link for January chats with our exhibition team, press and digital teams.

If at **any** stage, you need help, have questions or want to run an idea past us, please don't hesitate to get in touch.

Telephone: 0207 451 2582
Email: exhibition@royalsociety.org
Website: royalsociety.org/exhibitors

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