

Public engagement and education initiatives: top tips from the team

Large-scale public engagement and education initiatives – top tips from the team

The Wellcome Trust's Engaging Science team has run several national public engagement and education initiatives now, and we would like to share some of the things we learned along the way.

The two largest initiatives that we organised were Darwin 200, in 2009, and In the Zone, in 2012.

Darwin 200 was a national public engagement and education initiative linked to the anniversaries of Charles Darwin's birth and the publication of *On the Origin of Species*. The initiative included:

- The Great Plant Hunt and Survival Rivals, practical science kits for every UK school
- A Question of Taste, practical genetics workshops in science centres
- Tree of Life, an animation and web interactive showing how species are related
- Routes, an online alternative reality game about genetics with videos, minigames and events
- Evolving Words, a spoken word project involving young people from six UK cities
- films, art exhibitions and events.

In the Zone was a national public engagement and education initiative that linked to the London 2012 Olympic and Paralympic Games. In the Zone included:

- practical science kits for every UK school
- a touring exhibition with online experience, touring to agricultural shows, sports events, music festivals and other family events
- a hands-on sports science pop-up, touring to non-science festivals and events
- training for scientists, communicators, youth leaders and sports coaches
- a touring science show in schools and at festivals
- I'm a Scientist, Get Me Out of Here: In the Zone – web chats between school students and scientists.

Although few organisations in the UK have the resource to run projects of this scale and budget, we hope educators and public engagement practitioners will find our learning useful. If you would like more specific details, the full evaluation reports for both projects are available from our website (wellcome.ac.uk/inthezone).

Here are our top tips:

1. Make the most of opportunities to collaborate, but stay true to your project vision.

Linking to external anniversaries or national events (e.g. the Olympics and Darwin 200) can be helpful for finding partners, piggybacking on marketing and taking part in joint events, but these 'national moments' aren't necessarily the main motivation for teachers or the public to get involved. Consider whether such a link will really enhance your project, and don't shoehorn it in if you don't need to.

2. Share your vision, even when you're not quite sure of the details.

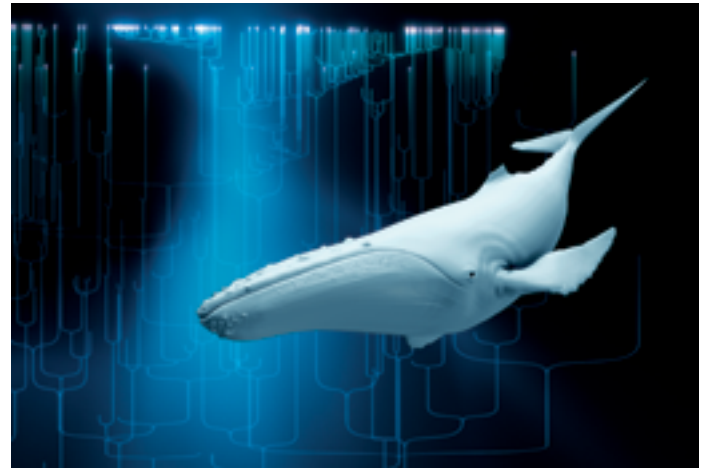
Make an engaging summary of your project in its early stages. We wish we'd had a short video to introduce people to our project from the beginning – when you're trying to get buy-in from internal and external stakeholders, you need them to imagine what the final project might be like, even if it ends up developing in a slightly different direction. Something visual is really helpful, even when it's not that slick.

Collect images and footage as you go: they are invaluable for future marketing materials, presentations, evaluation reports and so on.

3. Don't reinvent the wheel.

This seems obvious, but it can be very tempting to get started on a project before really considering whether anyone has done something similar that you can learn from. Investing some time in research might lead to you adapting an existing project rather than starting from scratch. We've had great success reviving long-lost experiments and adapting interactives from previous projects.

Many organisations outside of science communication are trying to reach similar audiences and using similar techniques, and they might have valuable insights. Think about talking to broadcasters, big companies and visitor attractions, and check the British Science Association's Collective Memory (collectivememory.britishtscienceassociation.org/).



Survival Rivals experiments and the Tree of Life resource both featured in the Darwin initiative.

4. Find the right champion.

High-profile supporters of your project (we were lucky enough to have Sir David Attenborough and Sir Steve Redgrave) can help you get media attention and open doors with potential funders and partners. It's always worth asking – some celebrities will even work with you at no charge, if their aims align with yours – but remember that people who appeal to grown-ups might be totally unknown to children.

5. Use your networks.

Don't rely on conventional media and marketing to get the message out about your project. Make sure everyone in your network knows what you're planning and ask them to talk to their friends, colleagues and contacts about it. Get them to tell their children's schools about education projects, their friends in the pub about events, and their business contacts about sponsorship opportunities. Give them something in return if you can: we created 'In the Zone at home', a quick guide to how Wellcome Trust staff could do In the Zone activities with their children, to help spread the word.

Peer-to-peer marketing really works, so get your audience to tell each other how great your project is and how they have benefitted from it. You can help this happen by involving representatives of your audience in developing or piloting the project.

6. Build relationships with delivery partners.

Time spent getting to know your project partners is well worth it later on. Openness and trust are crucial and come from being aware of different priorities, expectations and ways of working. Social occasions are great ways to build relationships between project partners and generate ideas and opportunities. If you can identify one 'opposite number' then you can focus your efforts, rather than attempting to build relationships with an entire organisation.

7. Make it look good.

Everyone says that content is king, but do invest in making your events and resources look good and test their appeal with your audience where possible. We found that

teachers really appreciate well-made, attractive resources in a sea of photocopied worksheets and that having a colourful, branded tent helped us to stand out at events.

8. Share and share alike.

Think about 'multipliers' (other organisations that communicate with your audience and might be looking for content to share), whether they are teaching websites like TES or 'What's on' newsletters with a space to fill. If you really want the things you create to reach the widest possible audience, think about who else might want to use them too, then seek them out and let them know you're OK with that. We sent our schools kits to each of the UK's science centres, and many of them have used them with their visitors. We use Creative Commons licences (creativecommons.org) to show that our resources can be shared and adapted at no cost and without our permission. As a result, they have been translated into other languages, been used overseas and become part of museum exhibitions, with us barely having to lift a finger.

9. Think through your website.

Do you actually need to build a new site that you then have to get people to visit? Or could you tap into pre-existing online communities and websites that your audience is already using? If you're going to develop a website, do some user testing to make sure you have the basics right and find out whether they will really use that impressive app. It's tempting to make websites all-singing and all-dancing, but we found that our most popular pages were the ones where teachers could download extra copies of printed resources and the ones where people could see videos of themselves trying out the exhibition. The forums, games and data-uploading tools were less well used.

Once the website is up and running, use analytics to understand how people are using it. Build in opportunities to update it as you go.



Great Plant Hunt and In the Zone kits.

Education projects

10. Teachers are the gatekeepers to students.

Your resources need to appeal to teachers first, then students. Consider who in the school will see your resource initially: we sent our primary school kits to Science Co-ordinators and our secondary school kits to Heads of Science, but we made sure the boxes were clearly labelled so school admin staff could see what they were and get them to the right person. Produce guides for educators so they can easily see what the resource is and how it could work for them. Technicians' notes are valued for practical resources.

Don't forget about further education colleges, special schools, hospital schools and so on. Local authority websites are a good starting point for information. We bought access to a live national database and used teachers' names wherever possible. Keep the science content contemporary and linked to real life so you're offering something new. Always link to the curriculum and extend from there – without this, most teachers won't use the resource.

If you're developing practical resources, adaptability is key. Teachers will get creative with what you give them and adapt your resources to suit their needs and teaching styles. We found that providing a range of activities (from those that are really visual and quick to use to those that support more in-depth and reflective experiences) was successful, and the potential for student-led inquiry was valued. Our website analytics show that teachers preferred editable versions of written resources, rather than PDFs.

Training

11. Maximise impact by providing training – create advocates.

If you want your work to reach a wider audience, create a network of ambassadors who are trained in how to use your resources and deliver your events. We've found that a mix of course delegates encourages peer-to-peer learning and networking. We asked our delegates to tell us in advance when they would be using their training; you can help participants out by providing opportunities for them to put their learning into practice sooner rather than later.

When training courses are free, people are more likely to drop out or fail to show up. You can plan for this by overbooking slightly or asking for a refundable deposit. It's also helpful to communicate the benefits of the training in your marketing materials and provide testimonials from people who have previously taken part.





The In the Zone touring exhibition and pop-up experience toured the UK in 2012.

Events

12. Work with existing events and bring some science sparkle to their programmes.

Science at non-science events gives you a unique selling point and attracts new audiences. Rather than creating events of our own, we chose to deliver at places that had a guaranteed footfall, but it's important to secure a good location and have eye-catching activities. Mini-shows and busking activities can help to draw audiences in, engage larger groups and entertain a queue.

You shouldn't need to pay event organisers to deliver a wonderful free experience to the public, and some events organisers will even pay you to be there. (New events might be more likely to do this, but don't expect it.) We created a multipurpose 'sales' pack that included a written agreement, content outline, floor plan, risk assessments, insurance details and publicity information. Once you have identified your events, we recommend having a written agreement to avoid misunderstandings or, failing that, a back-up plan in case the event is cancelled. Fitting in with existing events means adapting your project to suit their audience and venue. Try to make sure your offer is flexible; equipment needs to be scalable and easy to transport, and your staff need to be able to go 'off-script' to really engage with different types of visitors. We think having staff with a genuine subject knowledge and real enthusiasm helped with this.

Always think ahead – know your position within the site and find out about health and safety information and practical requirements before delivery day.

13. Consider how your audience interacts with friends and family.

Not everyone would say they love science, but almost everyone is fascinated by themselves. Try to make each visitor's experience as personalised as possible and, where appropriate, provide the means for them to compare themselves to their friends, family and others. For In the Zone we pondered over whether people would enjoy a bit of friendly competition. It turns out that they love it, but it's more suited to public events than schools.

Families like to do things together, so try to provide something of interest for every age group. Children are more likely to be attracted to things that seem grown-up than vice versa, although adults do like to be playful too.

Consider what people can do when they get home – can they take something away, can they extend their experience online, or can they share photos of the experience with their friends?

14. It's all about teamwork.

Your staff have a crucial role – delivery days can be tough, and when the rain keeps coming you need people who can bring some sunshine to the rest of the team and your audience. It's always better to have more staff on the ground than you think you need. Nothing beats one-to-one engagement with the public.

Spend time getting to know your team and make sure they have time to reflect, develop and share their experience. If you're aiming to get press coverage, you probably need a dedicated person to be present at the event to spot opportunities and act as a coordinator. We found that props and demos helped to generate press interest. Don't be afraid to sell yourselves, and remember to smile!



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The Wellcome Trust

We are a global charitable foundation dedicated to achieving extraordinary improvements in human and animal health. We support the brightest minds in biomedical research and the medical humanities. Our breadth of support includes public engagement, education and the application of research to improve health.

We are independent of both political and commercial interests.

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