
The 'general public'

1. For a general public audience, our golden rule is to ensure your messages are *accessible* (which is not the same as 'dumbing it down!'). Think of 'hooks' to gain interest and consider the 'comfort zone' of your audience which may include factors such as the physical choice of space used in the engagement.
2. Don't assume levels of prior knowledge. For example, most people asked off the street will likely have heard the term *gene* but how many would know what it actually is, let alone know the difference between gene and genome? Don't be afraid to explore what they know – and want to know – rather than assuming.
3. Help get across concepts or scales using comparisons or metaphors. A comparison might be 'if you stretched out all the DNA in all your cells it would easily span the solar system'. Metaphors would include terms like 'blueprint' in the context of the genome or 'genetic scissors' in the context of genome editing.
4. Using acronyms and technical jargon is ok but do define them so they aren't left a mystery to your audience.
5. Two-way engagement will make your audience feel more involved, whether through dialogue or feedback. For example, consider voting handsets or build interactivity into the whole design of the activity from the outset.

Primary schools

1. Use lots of images, activities and props. Story-telling is a great way of thinking around any engagement activity but particularly for younger children.
2. Ask lots of questions to keep people interested and maintain a spirit of curiosity. Giving clues is good as it prompts children to make references and connections to things they might already know.
3. Make references to everyday ideas that children will have experienced. For example if wanting to convey the idea that every living thing has a genome, begin by asking "what sorts of living things might you find at home?"
4. Be open to what children can absorb. With the right approach, even the very young can grab scientific ideas.
5. End on a high! Ask how many would like to learn more! And say they'll have that chance to discover more about science and how things work as they move up through school.

Secondary schools

1. Secondary school audiences can feel more challenging to engage than their younger counterparts. However what might seem like disinterest often masks individuals' real desire to engage and learn, so keep to the script!
2. Questioning is always good, but be prepared for less responsive audiences with a rhetorical approach – e.g. "you might have wondered why..." or "you hear a lot of people ask...". Voting handsets are another way to create interactivity in a presentation setting.
3. Any careers focus for secondary pupils will be valued – particularly as many will be deciding what to pursue. Relevance to their curriculum would be good to consider, and helps teachers see the value.
4. Regarding secondary pupils as young adults is a good rule of thumb.
5. Many communicators use references to popular culture to aid engagement – but do take care not to appear 'out of touch' as things move fast!

Special interest groups

1. When engaging with specific groups – for example patient groups, educators or community groups – start by considering / discussing what their objectives are for the engagement, and planning your approach around that.
2. Be mindful that some groups, for instance charities highlighting particular conditions or disease, will be very passionate about their mission and may have expectations of what the engagement might achieve for them. If possible, talk with the group organiser about what these might be, and if your engagement activity can meet them.
3. Look at what others have done – there are lots of examples of projects bringing science and research communities together with community groups, social enterprises etc.
4. Any given activity does not always need closure. It is perfectly valid to have open-ended questions and a need to follow through with further chapters in the process.
5. In difficult situations or when out of your comfort zone, default to a safe space. For instance – offering to think more carefully about an issue is preferable to a defensive approach or attempting to conjure wisdom out of uncertainty. Above all, always let your human passion and motivation shine through as it creates empathy with audiences.