## **Creating a Presentation**

## How to research and present information.

Design your presentation for the level of your audience—a physics class presentation would differ from one to parents, since your peers would have more knowledge of science and might expect a more formal presentation. Your classmates might be more interested in the physics, while parents might be more interested in the effects of collisions on their children. Have your own line of reasoning, but also address other perspectives, even if you may disagree with them, so your audience is aware of alternative or opposing perspectives. With concussions, for instance, there are clearly different perspectives about the level of safety that should be mandated, and how much participants should be able to decide their own tolerance for risk.

One resource for a project is speeches on topics from the Web—for instance, the topic of concussion generates speeches. When viewing the speech, evaluate the speaker's point of view. Consider the speaker's points of emphasis and major premises, and how she links her ideas. Also consider her presentation style: Does her stance, word choice, and tone increase her credibility or diminish it?

As you do your research, construct the arguments you wish to make and consider the following steps. Make sure:

- Your claims are precise and backed up with scientific knowledge.
- You establish the significance of your claims, and make sure your perspective and the claims of others are clear.
- Your organization is consistent throughout your presentation.

For instance, regarding concussions, you might start with a video of a player affected by concussions and some graphs of the number of players in sports such as football, lacrosse, and field hockey. You might then present a short video of a speech by an NFL representative discussing the NFL's attempts to make the sport safer. This might be followed by facts on the forces involved in collisions based on your calculations and then those of others. Finally, you might analyze how much helmets reduce the impact of collisions, using both your data and those of others. Be fair and thorough in presenting claims and counterclaims, presenting the most relevant data and evidence, and discussing its strengths and limitations.

Consider whether knowledge seems more certain or is still under active debate. For instance, the force of collisions seems like it can be fairly well determined, even as it varies by age (which correlates to mass and speed). On the other hand, the biology of concussions seems harder to determine. It's less clear how many concussions cause damage, and even harder to quantify the impact of lower-force but repetitive collisions. Consider the perspectives of your audience—a presentation to doctors may mean an audience conversant with medical issues and more focused on safety, while the parents of a varsity team might have less knowledge of physics and biology and find more value in a presentation on the benefits of participation in sports.

Use the presentations of others as a resource. Find a speech on a topic such as concussions. When viewing the speech, evaluate the speaker's point of view. Consider the speaker's

points of emphasis and major premises, and how she links her ideas. Also consider her presentation style: Does her stance, word choice and tone increase her credibility or diminish it?

Consider your presentation as if you are writing an essay, using appropriately formal language. Use words and phrases to link parts of your presentation (e.g., "in addition" or "also"). Use similar constructs to identify relationships. For instance, regarding concussions, you might say "autopsies have supported the concerns about collisions in sports." Vary your words and grammar. Keep some sentences short, but use longer ones too. Finish with a conclusion that follows from your arguments.

Use digital media in your presentation "strategically," when it increases the impact or clarity of your presentation. For instance, a video (including audio) of a powerful collision between two players may increase interest in your topic. Using a simulation and allowing the audience to change inputs may also increase the interest of your audience.