

Global Precipitation Measurement Mission

Giving Presentations in Elementary Schools: Best Practices

General Tips:

Length of Presentation-

- K-2: Generally these younger students have a fairly short attention span. Usually a 30-minute presentation length is a good rule of thumb. Plan on a 25-minute presentation and leave 5-minutes at the end for questions.
- 3-5th: These students will be able to focus for longer periods, and can generally do well with a 45-minute presentation. Plan on a 20-minute section, have time for questions and perhaps a stretch, and then do another 20-minutes to finish up.

Types of Presentation-

- It will likely be difficult to plan and implement a hands-on activity during your short visit, but you can give the teacher an activity to do with the students before or after your visit that relates to your topic. However, it is a good idea to have a few demonstrations that you do to illustrate key concepts.
- Try not to have too many slides. Have fewer words and make use of pictures and animations. Include a few short video clips (no more than 3 minutes long) between the other slides.
- Ask a few questions, and make use of techniques like giving a “thumbs up” for “yes” or a “thumbs down” for “no” or you may spend most of your presentation time listening to their responses. If there are getting antsy and need to talk, have them turn to their “elbow partner” and tell them the answer, and then bring them back to focus on the presentation. Check with the teacher ahead of time to find out the techniques that the students are used to for refocusing their attention.

Content to Cover-

- Ask the teacher for specifics as to what the students should learn about your topic. You can refer to the Next Generation Science Standards at <http://www.nextgenscience.org> to assist you in determining what to include in your “story” about your content.
- Students do like to think of events and information in terms of a “story”, and you might introduce your topic by telling them that they will learn about the “story” behind the water cycle (or whatever the content is that you are covering).
- Once you know what your content is and the level of sophistication that is appropriate, try to generate three or four main ideas that you want the

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students to remember. Tell them these main ideas at the beginning of your talk, and refer to them again at the end.

- A good rule of thumb is to keep the content very simple and add analogies to help students understand processes and models.
- It is always helpful with younger students to have some physical items that you can use to show them aspects of the content. For example, when teaching second grade students about the difference between weather and climate, you could bring a calendar. Using the calendar, you can explain that weather is something that happens in the very short term- and show how we really can only predict the weather a few days ahead of time. Then you could open up a few different months (indicative of the four seasons) and ask them to predict what the weather will be like during that month.

Other Tidbits:

- Most elementary schools have the students staying with one main teacher (or sometimes two when there are students with special needs in the class) for the majority of the day. The teacher may invite other classes to the presentation. While having a hands-on activity is a great idea, it is also very time-consuming and may be better to leave behind for the teacher to do in class at another time. Demonstrations generally work best, as they require fewer transitions for the students. You might have the students do the hands-on activity before or after your visit, depending on the content and the teacher's determination of what will work best.
- Elementary school students have amazing energy and are very social. They generally have short attention spans and can be very easily distracted. They may have lots of questions that can take everyone off-task and sometimes make it hard to return to your story. You can engage students to answer questions initially with a simple "thumbs up or thumbs down" if they have experienced certain things or think an answer is true or false, as to avoid needing to call upon specific students. You might let students know that you will take questions at the end of your talk, and encourage them to write their questions down. If you don't get to all the questions, you can have the teacher send you a list of the top ten questions, and then answer them at a later time.
- Some eager students may disrupt your presentation by commanding too much attention. The teacher should stay in the classroom the entire time, and should serve as a behavioral guide. If you ever feel that you need help, you might work on a sign with the teacher ahead of time to cue him/her to assist you. This cue might be as inconspicuous as holding up a bottle of water over your head or simply saying the teacher's name.

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Before your visit:

- Take a few minutes to talk to the teacher and share your ideas for the presentation. If possible, email the presentation to the teacher so it can be ready to show when you get to the classroom. Sometimes the computers and projectors can be difficult to swap out, and may be set up ahead of time for your visit. It is always a good idea to have your presentation on a flash drive as well. If you plan to use links to the Internet, be sure the teacher knows that and makes sure that Internet connectivity is available.
- Email the teacher a picture of you and a short bio, as well as a link or two where the class can learn a little more about your work. This will acclimate the class and have students feel that they already know a little bit about you and your work.
- Make sure you have the correct address for the school! Don't laugh- I have had scientists call me to tell me they had arrived at the old school address or at another school entirely.
- Be sure you find out where and when you are supposed to meet your teacher. Sometimes the teacher is in class, and will send a student to meet you.
- Be prepared to need to show your Driver's License to the office staff upon your arrival to the front office. Most schools will have you wear a nametag for your entire visit, and will ask that you check out with them after your visit.

During your visit:

- Begin your presentation by spending a few minutes telling students about yourself and your job. You might want to include a few slides that describe your work in fairly simple terms. Things to cover include: What got you interested in your field in the first place? Did you like science as a child? What are some neat experiences you have had as a scientist?
- Stay cognizant of the time, and try not to go over the time period unless you have checked with the teacher/s ahead of time. It is helpful to ask the teacher to give you a sign when you have 10 minutes left, so you can begin to wrap things up. You may need to skip some slides, and it is a good idea to have some "extra" slides at the end of your presentation just in case you end up with extra time (although that happens much less often than not having enough time).
- Try not to rush through your presentation, as that can create a situation in which students don't end up grasping the content being presented. As you give your presentation, you can use the students' body language to assist you with their focus and interest levels. A word of advice though- sometimes students have not mastered the art of being polite and keeping their heads off their desk and looking at the speaker. You might ask the teacher if he/she

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will monitor and assist students with this if it becomes an issue. Some speakers and teachers choose to ignore this behavior, whereas others use it as a teaching tool to help students learn appropriate behavioral norms for instances when people are giving presentations.

After your visit:

- If you have time to respond to some of the students' questions, you can send the teacher an email with the answers. Do not worry about trying to respond to each question. You can look over the questions and provide urls that the teacher and students can visit to find the answers and/or learn additional information.
- You might send the teacher an email requesting some feedback on your presentation. By asking a few direct questions; such as "Was this presentation at the right conceptual level for these students?", "How might I modify this presentation?", and "Can you think of something I can add to make this presentation more engaging to students?"; you will probably get some good feedback that will allow you to continue to improve your presentation.

Questions to Ask the Classroom Teacher

1. What content do you want me to cover?
2. What have students already learned about this content?
3. How long should the presentation last?
4. How many students will be there?
5. Will I have access to Internet connectivity?
6. Is there a "quiet signal" that students are used to responding to?
7. What time should I arrive and where shall I meet you?