Knowing How to Impress the Science Fair Judges

By Maxine Levaren

Even with some background about what science fair judging involves, you're probably still nervous. You know that your project is good and that your display is attractive. You even know what the judges are looking for. But, while you're setting up, you may see other projects that you perceive to be better than yours. Don't panic — stage fright is normal, but some simple preparation techniques may make "opening night" a little less stressful.

Ooze confidence from every pore

Probably the most important thing that you can do to get ready for judging day is to be physically and emotionally prepared. After all, if you feel good about your project and your display and know your subject matter, you'll do just fine.

But here are a few specific tips to remember:

- Be sure to get enough sleep the night before.
- Eat a good breakfast.
- Dress neatly and conservatively.
- Don't eat, chew gum, clutch a soft drink, or slouch when the judges are walking through the exhibit area. In fact, food and drink may be prohibited in some exhibit halls.

Prepare a killer notebook and display

The first thing that judges see is your display. If it attracts a judge's attention from 3 feet away, then the display has done its first job. Then, he or she should be able to quickly read some of the key information on the backboard, such as the hypothesis, procedures, results, and conclusions.

It's not necessarily flash and dash, but most judges appreciate a display that makes the most of their time!

When a judge opens your notebook, he or she looks at the basic elements, including the abstract; research paper (with bibliography); hypothesis; procedures; results (with tables, figures, and graphs); and conclusions.

He or she doesn't have enough time to read every word in your notebook, but may find out enough to know what to ask during your interview.

Ace the interview

Although lots of students dread this part, the interview is your chance to shine! Judges walk through the exhibit hall looking at displays and notebooks, and stop to interview students along the way. A lot depends on the individual judge; some talk to every student, while others interview only a few. In any event, the good news is that most interviews last only several minutes.

When the judge asks a question, don't wave your arm and say, "It's all here on the backboard." The judge already knows that and now wants to hear you talk about your project. That's how he or she knows that you truly understand your work. However, you can use your backboard as a prop. Take advantage of it to point out statistics, graphs, photos, and other highlights of your project.

If English is a second language for you, speak slowly to make sure that the judge understands what you say. In fact, that's good advice for everyone — even if English is your native language. Slow down, take your time, and make sure the judge understands what you have to say.

The best preparation that you can make for an interview is to know what's in your notebook, including any formulas, terms, and acronyms that you used. The judges may very well ask you to define some scientific jargon that you have in your notebook. "Well, my teacher said . . ." just isn't a valid definition.

Don't try to memorize what's in your notebook for the following reasons.

- You don't know exactly what the judges may ask, and over-rehearsing may make you tongue-tied when trying to field an unexpected question.
- A rehearsed speech sounds exactly like a rehearsed speech, which doesn't give the judges confidence that you truly know your material.
- Although science fair judges aren't trying to trap or stump you, they do appreciate spontaneous answers that demonstrate that you understand scientific principles.

Sample questions the judges may ask

Another helpful hint that may ease pre-interview jitters is knowing some of the judges' most frequently asked questions. Just ask your folks how they'd prepare for a job interview — knowing the possible questions would make them feel much more confident and relaxed.

For example, see how you answer the following questions, which are in the guidelines for judges at the Greater San Diego Science and Engineering Fair:

- How did you get this idea?
- Is this project a continuation of an earlier year's project? If so, what did you add?
- What application does this project have to real life?
- Where was your project done?
- How is your project different from others that you researched?
- What was the most interesting background reading you did?
- How does this experiment conform to the scientific method?
- Which are your controls? Your variables? What is/are the difference(s) between your control and experimental groups(s)?
- Where did you get your animals (bacteria, plants, and so on)?
- Did you acquire any new skills while doing your project?
- What help did you receive from others (students, adults, teachers, family, and so on)?

- How did you determine your sample size?
- If you used any statistical tests, how did you choose them?
- Can you explain this graph to me?
- Can you explain your procedure to me?
- What does this (some project detail) mean?
- What do your results mean?
- How many times did you repeat this experiment (or test your device or program)?
- Did you need to change your original procedures? If so, why?
- Did you have any experimental errors in your project? If so, how did you correct for them?
- What is the most important thing you found out by doing this project?
- What changes can you make if you continue this project next year?

If you don't know an answer, don't try to fake it — the judges always know. Don't be afraid to admit that you're clueless; they don't expect you to know everything. You can make a better impression with your honesty.

The spirit of exploration

Besides knowledge, good use of the scientific method, and accurate record keeping, a quality that impresses scientists and engineers is a willingness to take risks and go "where no one has gone before." You can have the neatest notebook and the most beautiful display, but if you choose a project that you can do with a minimum amount of work, you probably won't get a high score. However, if you have a lively curiosity, a passion for finding out the truth, and the perseverance to follow good scientific procedures, the judges may like your project, even if the experiment hasn't worked out well.

Because enthusiasm is contagious, let your excitement show. The judges know that you enjoyed doing a project and being in a science fair. When your interview is over, smile, shake hands, and thank the judge. When he or she has moved on to the next backboard, you can breathe a sigh of relief. Now it's only a few more hours until you find out if you've won an award and the chance to advance to the next level.

You'll probably see the judge go off and find somewhere to make notes. Don't read too much into it — at many science fairs, judges have to fill out a form that covers the big five (creativity, scientific thought or engineering ability, thoroughness, skill, and clarity) on every project they look at.

To enjoy the science fair, realize that judges are evaluating your project, not you. Notice that they're not looking at your hair, your makeup, or your braces. They're looking at your project and how you present it in written, oral, and graphic form.