

# Science Fair 101

## How to get the most of the experience

BY MELISSA KOSSLER DUTTON



Rachel Yoho

ERIC WAGNER PHOTO

The first time Rachel Yoho went to the State Science Day, she saw something that surprised her.

"I saw high-school seniors getting full-ride scholarships to different universities around Ohio," she recalled. "I saw that they were making a difference in their education just by coming here."

The experience at the statewide competition got Yoho, now 20, thinking about science as a job. She continued to enter more

and more involved projects and ended up earning a full scholarship to study biology at Capital University in Bexley.

Participating in the science fair helped Rachel discover her life's passion, said her mother Linda Yoho, who lives outside Galena.

"If she hadn't participated in these science fairs, she would not have the life path she has," Linda Yoho said. "It certainly can open worlds for you."

### ACCENT ON THE POSITIVE

While the science fair will not lead every student to his or her career path, it can offer a number of positive experiences.

Students who participate in the fair will receive lessons on following directions, public speaking and thinking on their feet, said Lynn Elfner, CEO of the Ohio Academy of Science, which organizes the State Science Day. It's the culmination of a year-long process of school science fairs, followed by district qualifiers, which then lead to the state event.

"There's also a sense of accomplishment that comes from competing," Elfner said.

The experience also incorporates a number of life lessons, said Dan Keller, a science teacher at St. Agatha School in Columbus.

"Kids really learn how to be successful, how not to quit, how to follow directions, how to organize and how to overcome a little bit of adversity," said Keller, who oversees the science

projects for seventh-graders.

When kids do well in the science fair, it sets them up to enjoy the sciences throughout their school career, he said. It also can help them overcome any fears that they may have about taking science classes, he added.

"A good science-day project can demystify science and make it enjoyable," he said. "These kids develop a better scientific literacy."



Parents help their children assemble displays at the State Science Day, held in OSU's French Field House

DORAL CHENOWETH III/  
DISPATCH PHOTO



Students at the 2011 State Science Day wait to have their projects judged

TESSA BARGAINNIER/DISPATCH PHOTO

### LESS IS MORE

The key to making the science fair a positive experience is selecting the right project, Keller said.

Science-fair projects can really incorporate any interest a student has, Rachel Yoho said. "They don't have to find a cure for cancer."

In fact, simpler projects are often better because they allow students to gather more data to analyze, Elfner said.

Parents don't need to be scientists to help their kids do well at the science fair, added Linda Yoho, who works as a paralegal.

"(Parents) shouldn't be intimidated if they don't come from a science background," she said. "Just be supportive. Just do what you can to facilitate their interests."

Students should work with their parents or advisor to find a topic that lends itself to a good project, Keller said.

"For some kids selecting the topic will take more time than any other step," he said. "When a kid does a project they want to do that kid will take ownership of it and that is so important."

The most workable topics pose a question that the student develops a way to answer, he added. He encourages every student to participate in the fair.

"Science day should not be considered an event for the best and brightest," he said. "Kids at every academic level can be really successful."

### SCIENCE FAIR SANITY

The Yohos, Kelly and Elfner offered the following tips to help families survive the science-fair experience:

- Choose a topic that means something to the student.
- Allow plenty of time to complete the project.
- Avoid picking an experiment from the internet because they are not original.
- Seek out someone who has expertise in a field related to the experiment as an expert resource.
- Search science journals and science websites for possible topics.
- Read newspapers to see what is happening in the field of science that interests the student.
- Narrow the topic as much as possible.
- Discuss projects with a reference librarian to see if the library may have useful books or articles.
- Remember it's the student's science project and he or she must be able to discuss it with the judges.
- Read and follow the rules and requirements for entering the competition. Science Day guidelines have gotten very complex and students who don't follow them may not be able to compete.



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