

Experiment with Science Fairs

Be prepared, parents and kids: It's science fair season once again.

BY MIKALEE DAHLE

What are some tips for getting a project noticed – and helping students earn that gold-embossed ribbon that signifies scientific success? Here, some of the top scientists representing departments at the University of Nevada, Reno's College of Agriculture, Biotechnology and Natural Resources (CABNR) offer their expert perspectives.

Keep it Simple: "First you'll want to help your kids discover a topic that they're really passionate about exploring," says Kurt Pregitzer, chair of CABNR's natural resources and environmental science department and father of three former science fair enthusiasts. "The critical part is figuring out the question and then finding a simple way to answer it; simplicity is key."

Be Active and Visual: "I'd recommend students pick a project that involves actually doing something," says Jeff Englin, chair of the department of resource economics. "The active part of the activity gives the students fun anecdotes to relate. And it's important for the student to think carefully about how to present the results – in terms of graphs, pictures, etc. – as two bullets and five words won't grab the judges' attention."

Be in Control: "If I could teach students across America to do one thing, it would be to embrace the concept of the controlled experiment," says Gary Blomquist, chair of CABNR's biochemistry and molecular biology department. At the core of the concept of "control," Blomquist notes, is the idea that results from an experiment are compared to a control group, which is as similar as possible to the experimental group except for the one variable being tested.

Ask the Experts: "I judged a few of these competitions, and the one thing I kept seeing was the same teacher having successful students," says Ron Pardini, associate director of Nevada's Agricultural Experiment Station. "So, the lesson: Go to your science teacher and ask for feedback. Find a mentor. And do it early – don't wait until the last minute."

Research, Research, Research: "Take time to understand the scientific question being asked," says Chris Pritsos, chair of CABNR's nutrition department. "While it is often fun conducting and putting together science fair projects, students need to spend time reading background material in order to understand the problem and why their question is important. The more they know about the overall topic, the better the presentation of the project will be."

Look to Current Events: "Students may be well served to explore items that are in the news," said Dr. Esmail Zanjani, chair of the animal biotechnology department, noting that local or national trends and hot topics can serve to inspire science fair subjects. "Students can then gear what they do to recent events, shedding new light on something highly relevant."

Of course, with all of this advice in mind, the best idea may simply be to do some good old-fashioned exploration. Search with your kids through science books, perform some keyword searches on the Internet, and always remember to have fun while you're doing it! ■

Mikalee Dahle is director of communications for CABNR. She vividly recalls taking first place for her science fair project at Elmcrest Elementary, investigating taste differences between regular and caffeine-free Diet Pepsi.

Need help starting that Internet search? Here are a few good places to start:

Neuroscience for Kids
<http://faculty.washington.edu/chudler/fair.html>

Science Project Encyclopedia
www.cpet.ufl.edu/sciproj/sci002.htm

Columbia Public Schools Science Fair Prep
www.cyberbee.com/science/prep.html

Dylan Dahle, a third-grader at Sarah Winnemucca Elementary School, shows off the tools he uses for his research.

