

# Mental muscle

## Olympiad contests aim to foster love of science

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Kylee Hamilton (left) and Arnold Rivers (right) of Christiana High School compete in the optics portion of the Delaware Science Olympiad at Delaware State University. / SPECIAL TO THE NEWS JOURNAL/JASON MINTO

Written by

**MELISSA NANN BURKE**

**The News Journal**



- [Delaware Science Olympiad](#)

**DOVER** -- In preparing for her first Delaware Science Olympiad, 16-year-old Jessica Glass and a classmate spent hours after school crafting a delicate, toy-size helicopter from balsa wood sticks, cling wrap and a rubber band.

"It's made me realize I want to be hands-on in my career," said Glass, a junior at the Sanford School in Hockessin. "I do not want to be behind a desk."

Boosting interest and exposure to science and technology is the mission of the Olympiad, now in its 28th year.

The tournament drew nearly 1,000 students from around the state to Delaware State University on Saturday for a day of competitive activities exploring fields from astronomy to forensics and forestry to thermodynamics.

Crowded into classrooms and gymnasiums, the high-schoolers flexed their science muscles, tested homemade contraptions and competed against other science-savvy teens from public, private and home-schools.

Fifty-eight Science Olympiad teams participated, having studied and experimented for months in advance. Each challenge, governed by a set of rigorous standards, was overseen by volunteer judges, usually retired teachers or practicing scientists from industry. In three weeks, junior high school teams will descend on Delaware State for their Olympiad.

"This makes science fun," said Judy Maxwell, a team coach and teacher at the Towle Institute in Pike Creek. She watched as two team members, 11th-grader Annalee Kohler and 10th-grader Abigail Durkovic, practiced picking up pencils, D-size batteries and nails using a robotic arm they built.

"It stretches them," Maxwell said. "And it's a nationally known program, so it looks really good on their college applications."

In a laboratory nearby, students raced the clock to identify specimens and features of 10 native Delaware trees, including sweet gum, red maple and red cedar. A uniformed member of the Delaware Forest Service, Ashley Peebles, allowed the students to use a field guide to help with identification.

"They don't have to know every tree to get points. I asked other questions, too, like the significance of the American Holly tree in Delaware. It is, of course, our state tree," said Peebles, coordinator of environmental education for the Forest Service.

In recent years, the Olympiad has included more energy- and environment-focused activities because of their growing applications in industry, organizer Gerald Poirier said. Last year's tournament featured a wind-power event. This year, students tackled a water-quality challenge.

One activity specific to the Delaware tournament is Polymer Detectives. Students, provided with samples of threads (polyester and wool, for example) and different types of plastic chips, run a series of tests to identify them.

A popular event that attracted creative musicians Saturday required teams to build -- from scratch -- a wind and a percussion instrument capable of playing a 12-tone scale, without using commercial reeds or mouthpieces. Judges considered workmanship, the performance of two songs and students' knowledge of the instrument's sound production.

Before her session, Cassie Gordon, 15, of Delmarva Christian High School in Georgetown practiced playing "Silent Night" on the rims of wine glasses filled to different levels with water.

Archmere Academy 10th-graders Beth Burton and Justine Zhang rehearsed a "Phantom of the Opera" favorite nearby on a PVC-pipe flute and an orchestral-sized xylophone with rolled-paper bars.

"We found the thickness of the paper matters," said Beth, who plays mallet percussion in school bands. "We then ran into the problem of amplifying the sound. Paper isn't very loud."

At day's end, organizers awarded first and second place to Charter School of Wilmington, with Archmere Academy, of Claymont, taking third place. The winning team will compete at the national Science Olympiad at the University of Central Florida on May 18 and 19.