



ROBERT SCIARRINO/THE STAR-LEDGER

New Providence High School student Kimberly Shao carefully winds the rubber band to the airplane she and her teammate, Jingwen Du, entered in the "Wright Stuff" competition at the New Jersey Science Olympiad at NJIT in Newark yesterday.

Gifted science students show competitive side

N.J. Science Olympiad brings out creativity


BY DIEGO CUPOLO
STAR-LEDGER STAFF

In a high-stakes competition that brought scientific concepts from textbooks to life, 600 students tested their skills yesterday in engineering, physics, chemistry and geology during the annual New Jersey Regional Science Olympiad.

The New Jersey Institute of Technology hosted the tournament, pitting teams composed of 15 students against each other in a battle to reach the state competition.

The event was one of three regional Olympiads where students demonstrate their problem-solving skills in challenges like "Robot Ramble," "Boomilever" and "Wright Stuff."

"What we're doing is showing

 Catch the video of students competing at the Science Olympiad at NJIT at TVJERSEY.COM and NJ.COM

the students what they learn in their science classes by applying it to real-life situations in a physical environment and letting them have fun and be creative with it," said Howard Kimmel, associate vice president for faculty affairs at NJIT.

Students competing in "Wright Stuff" constructed monoplane gliders from balsa wood and wound up rubber bands to spin the propellers. The goal was to keep the

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monoplane in the air for as long as possible.

The rules were strict. Mike Ramos, a junior at Wallkill Regional High School in Hamburg, was disqualified for failing to meet size and weight specifications.

"It's too bad because I worked on this plane for six hours," Ramos said. "But the event is still a good way to bring different students that are interested in the same subjects together."

With grumbles came triumphs as Brice Amsden and Kelley Zhao, seventh-grade students at Randolph Middle School, built a bridge that successfully held up a bucket filled with 20 kilograms of sand. Amsden credits the ultralight structure's design as the reason it prevailed.

"We decided to use a triangle-shaped structure because it can hold more weight and disperses the pressure onto the bottom of the bridge," said Amsden, a seventh-grade student at Randolph Middle School. "The bridge itself was really light. I'm really happy it worked."

In a similar challenge, "Build a Tower," Mackenzie Walker and Ashley Washington, seventh-grade students at Central Jersey College Prep Charter School in Somerset, won fourth place for building a balsam wood tower that held 15 kilograms without breaking.

"The environment here is very motivating, the kids see that what they need to achieve is not easy. But that's what makes it exciting, I've been very excited all day," said Edward Yilmaz, a science teacher

at Central Jersey Prep Charter School in Somerset.

Many of the challenges required pinpoint precision. In "Robot Rumble," students built remote-controlled robots that could pick up tennis balls, index cards and batteries and place them in a container within a limited time period.

Tony Makoujy, executive director of the Research and Development Council of New Jersey, which organizes the event in partnership with NJIT, said he enjoys running the event because students devote so much energy to achieving every challenge.

"To be on a Science Olympiad team takes a lot of dedication," Makoujy said. "These students have to spend a lot of time after school studying different scientific topics on top of doing their regular homework."

Not all of the events were based on building devices. Students like Hannah Weisman and Daniela Weiner, seniors at Westfield High School, worked together in "Disease Detective" where they had to study various infectious cases and identify the source.

"I think the whole event is really fun," said Daniela Weiner, a senior at Westfield High School. "But as you get older you do less events where you have to build things and more lab-oriented competitions."

For the geologists in the crowd there was also "Rocks and Minerals," where competitors had to identify different types of stone fragments through examination and "scratch tests."

Nicole Herzod and Amy Barrett, seniors from Middlesex High School, worked together in the event and said they were glad to be taking part in the Science Olym-



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Eighth-graders Zack Botos, left, and Andrew Goldfarb from Edison Intermediate School in Union make final adjustments to their entry in the scrambler competition at the New Jersey Science Olympiad yesterday.

piad because it took place on a college campus.

"I like having a day off from school and getting a taste of the college experience," Barrett said. "I went into a classroom just to see what they were like. I want to be ready for the fall."

An awards ceremony wrapped up the long day by recognizing the winning schools in each event. The top 11 schools in the high school and middle school divisions would move on to the state competition in March. The three highest scoring high schools were Union County Vo-Tech and Bergen County Academy, with first place going to Livingston High School. The top three middle schools were Pioneer Academy of Science, Mt. Hebron School and Mendham Township Middle School. In the end, every school walked away with a new appreciation for science and engineering.

"I like being challenged, and it's a great competitive atmosphere for a subject that usually isn't competitive. Most of the time when students think of science they think of schoolwork," said Matthew Silverman, a senior at Montclair High School.

John Carpinelli, director of the Center for Pre-College Programs at NJIT, said the Science Olympiad is an important event because it can spark interest in young students who may not have considered a future in scientific careers.

"Right now, there's a nationwide shortage of math and science majors," Carpinelli said. "The Science Olympiad exposes students to some basic scientific concepts, and we want them to see how applicable subjects like engineering can be. A lot of it consists of problem solving, which is something everyone needs."