



Kayla O'Connor, left, and Sabrina Hall, seventh-graders from West Shore Middle School in Milford, prepare to demonstrate their invention, a working hovercraft powered by rubber band-driven propellers, at the Connecticut Science Fair Thursday at Quinnipiac University in Hamden.

IT'S SIMPLE, SORT OF

Science Fair participants tackle favorite challenges, then explain

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Forget solar energy. Wind is the future of power, said Adam Kee, a Trumbull eighth-grader who, for the second year in a row, walked away with the first place finish in the Connecticut State Science Fair Thursday.

Last year, the St. Catherine of Siena student won first place in the seventh-grade physical science division for a project exploring the effect of blade angle, length and quantity on wind turbines.

This year it was first place in the eighth-grade physical science category for a project on Gyromills, or jetstream power plants.

Kee, a little taller this year, traded in his index cards for a laptop and seemed more adept at handling curveballs from the judges.

He wasn't the only repeat winner in the 60th Annual Connecticut Science Fair, which took place at Quinnipiac University in Hamden.

Sarah Kennedy, 13, of Hillel Academy in Fairfield, who last year placed third in physical science, placed first this time in eighth-grade life sciences for an investigation of dying marsh grasses. "I figured out why," she said, spelling out a diagnosis of too much mold and bacteria, too little oxygen, nitrates and phosphates.

With 161 finalists selected from 400 entries, there were plenty of awards handed out. Top high school winners, who go on to the Intel International Science & Engineering Fair in Atlanta in May, included Theresa A. Oel, a freshman from Manchester; Dayton Horvath, a senior at Newtown High School; Fiona Wood, a junior from North Haven; and Eliza McNitt, a junior from Greenwich.

Fair organizers say the turnout was lower than in the past, though local schools were well represented among the

finalists, coming from public and private schools in Bridgeport, Fairfield, Milford, Oxford, Stratford and Trumbull. Daniel Salem and Ben Ellenberg, both eighth-graders at Hillel Academy, placed first in the middle school team for a project that tested alternative fuel sources in a homemade still. They learned switch grass, a weed, is actually more efficient than corn.

A number of finalists concentrated on alternative energy sources.

Christopher Rodriguez, 13, who attends Holy Family School in Fairfield, turned a clear plastic computer disk case into a solar-powered energy source that could also energize batteries.

"Who wants to pay \$5 for one gallon of gasoline," he said, pointing to his blueprints.

Kayla O'Connor and Sabrina Hall, seventh-graders from West Shore Middle School in Milford, built small hovercrafts.

Kevin Rahrig, 13, from Stratford's Flood Middle School, also took on the effect of carbon dioxide on plant growth. With more time, Rahrig told judge Nicole D'Amato he'd pay more attention to temperature and give it more time.

A Wallingford attorney, D'Amato is a previous state science fair winner. "I remember what it was like. You can appreciate the hard work," she said.

On the environmental front, Chris Costa, 13, an eighth-grader at Assumption School in Fairfield, looked at how acid rain hurts earthworms and thus disrupts the food chain.

Worms also played into the project of Escarlin Ramirez and Nery J. Alfaro, both 15 and sophomores from Bassick in Bridgeport. They looked at ways to speed up composting in an effort to fix gardens at Bassick. They found worms do the trick



Micol Bedarida, 12, of New Haven, left, a seventh-grader at Hillel Academy in Fairfield, explains her project Thursday to judge Mona Nolde.

Science Fair finalists

The 2008 Connecticut Science Fair finalists from the region:

- Bassick High School, Bridgeport: Escarlin Ramirez and Nery J. Alfaro.
- Bridgeport Aquaculture School: Joshua Villafane, Sydney Williams and Brandon Simmons.
- Bridgeport Hope School: Bonnie-Elise Deshotel, Yenshim Watanabe, Emiko Corley and Alissa Montanaro.
- Fairfield Warde High School: Evan Feinberg, Anita Gade and Daniel Halpert.
- Hillel Academy, Fairfield: Micol Bedarida, Sarah Kennedy, Daniel Salem, Benjamin Ellenberg, Jason Weiner and Yaakov Eraner.
- Holy Family, Fairfield: Xiomara Galeano and Christopher Rodriguez.
- Our Lady of Assumption, Fairfield: Christopher Costa.
- West Shore Middle School, Milford: Kayla O'Connor and Sabrina Hall.
- Oxford High School: Louis Mandeville.
- Flood Middle School, Stratford: Kevin Rahrig.
- St. Catherine of Siena, Trumbull: Adam Kee and Kyle Ryan.

Joshua Villafane, Sydney Williams and Brandon A. Simmons, a trio of students from the Bridgeport Aquaculture School, looked into marsh grass ecosystems.

Other projects focused on improving health.

Micol Bedarida, 12, of Hillel Academy, tested dozens of spices, documenting results on a sea of charts and photographs before declaring curry and its components a good source of antioxidants and antibacterial power.

"So you're out to save the world here," said Jeffrey Moffit, a clipboard-wielding judge before quizzing Bedarida on her hypothesis, variables

and conclusions.

"Kind of," conceded Bedarida, who placed second in seventh-grade life sciences.

Anita Gade, 16, of Fairfield Warde High School, worked on developing a more effective way to deal with chronic pain by creating a "Therapeutic Nanostructured Smart Gel."

Another Fairfield Warde High School finalist was Evan N. Feinberg, 16, who explored the theory of calculus. He admits his project is Greek to everyone else he knows.

For his efforts, he won a \$300 savings bond from the Associated Teachers of Mathematics in Connecticut and \$500 from Webster Bank.