



## **Kids learn to excel at award-winning Detroit lab**

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Last Saturday, they went around Blue Heron Lagoon on Belle Isle testing for microorganisms that cause waterborne diseases. They were there as part of a mission to try to save the world.

The students take part in real-life, hands-on science research through Ecotek, a science program unique in Michigan. It was started by a parent and is funded by parents who want their children to have experiences more advanced than what's offered in typical classrooms.

The 20 core students -- who are in elementary through high school -- have beaten graduate students in a science fair and traveled to South Africa. Later this year, they are to build an electric scooter.

"People look at me and these kids and they don't expect for us to be research scientists doing this kind of work," said Ecotek founder and teacher Keith Young, calling it the only program of its kind in Michigan.

"This is not school," Young emphasized. "Here they get used to seeing and doing the things they dream about. I'm protecting their dreams." Hands-on science helps kids achieve Jazzmine Conley, 12, took a deep breath and held it in. She was peering at a small white orb in a small laboratory in Midtown Tuesday evening while her teacher, Keith Young, stood by watching.

"Pick it up," Young, a father of three, coaxed. Jazzmine slowly scooped up the frog eyeball with her latex-gloved hand. Next week she is to dissect a shark.

"At school, we'll just read about it and don't get to touch it," Jazzmine said. "Here we get to touch it!" she said of the Ecotek lab in Detroit's Midtown, where the seventh-grader is learning advanced science. Other students at Ecotek are to build alternative energy projects and genetically modify plants this year.

Ecotek is a lab in the Techtown complex that is funded by parents who want more real-life science experiences for their children. A total of 20 core students and seven developmental students participate in the program.

The research lab is supported by fees -- about \$200 per month per student -- and through fundraisers organized by parents.

Young founded the local lab to give his son, Keith Jr., 15, opportunities to learn about environmental engineering and his daughter, Amber, 11, a chance to learn skills she could use as a pediatric neurosurgeon.

"If they don't see it, don't touch it, being a doctor stops being a goal," Young said. "This is the real deal." Young is creating a video about the lab in hopes of selling it to the Discovery, History or Planet Green cable stations.

The Ecotek students learn to apply science for environmental conservation by creating consumer products such as Earth-friendly hand sanitizer and crayons from soy beans. Other projects involve alternative energy and food safety. The students who meet on Tuesdays are part of a six-week developmental class that costs \$45 a week.

These students aspire to join Ecotek's core team, a group that travels to the United Nations in New York every year and went to South Africa for a conference in 2008. In April, the team won second place at the Michigan AgriEnergy Conference in Kalamazoo for creating a soy-based biofuel.

The group was the only K-12 team in a competition with college graduate students, said Dennis Pennington, one of the conference organizers and a bioenergy educator at the Michigan State University Extension.

"Those kids were really a hit with the audience," he said. "They were really impressive." Ecotek is a member of the parent council of GLOBE -- Global Learning and Observations to Benefit the Environment, a network of students and scientists from 110 countries who work on environmental projects with funding from organizations such as NASA and the National Science Foundation, said Nan McClurg, a GLOBE spokeswoman.

Sarah Davis, 10, said the introductory class is challenging, "but challenging things get you to a better level." Her mother, LaTonya Davis of Detroit, said the science may be tough -- involving chemistry and physics -- but the cost is worth it.