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## A LEARNING EXPERIENCE

# 'The Little School That Can'



Times Observer photo by Lauren Vokish

## Fuel Cell Challenge champions

Warren County Career Center students took first place at the Hydrogen Fuel Cell Challenge State Competition in Williamsport last month. Left to right are Christian Foley, Warren Area High School; Aaron Quiggle, Eisenhower High School; Matt Jeffery, WAHS; Zach Kick, WAHS; Jacob Scalise, WAHS; Kyle Orth, WAHS; Casey Hansen, Youngsville High School; Collin Meadows, WAHS; and Scott Hodges, EHS; Missing is Dane Freeborough, YHS.

## Warren County Career Center team wins state title at Fuel Cell Challenge

By LAUREN VOKISH

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Ten students from the Warren County Career Center were definitely up for the challenge – the Fuel Cell Challenge.

In late May, the team was in Williamsport for the second year in a row to compete in the Pennsylvania College of Technology's Fuel Cell Challenge, and came home as the overall winner.

Competing with schools that have enrollments of more than 1,000 students, the WCCC team placed first in engineering and artistic design, fastest car and fuel management, and third in hill climb and load pull.

That added up to a first-place overall finish in the competition.

"By winning a state event as challenging as this, it just proves that the students are good as any other students in the country," said Jim Young, one of the Fuel Cell Challenge advisors. "This is huge for us. Sometimes we are overlooked, but I believe that we are the little school that can. I am very proud of them all."

Members of the team were seniors Kyle Orth, Collin Meadows, Zach Kick and Matt Jeffery and juniors Jacob Scalise and Christian Foley from Warren Area High School, senior Aaron Quiggle and sophomore Scott Hodges from Eisenhower and sophomores Casey Hansen and Dane Freeborough from Youngsville.

The purpose of the Fuel Cell Challenge is to introduce high school students to fuel cell technology (fuel cells as a power source, hydrogen generation and fuel management), and to apply that technology to physics principles in construction of model fuel cell vehicles that will compete in a variety of performance events.

According to the Pennsylvania College of Technology, "Hydrogen fuel cells are among the most promising technologies of the future as an energy source. Hydrogen is one of the most abundant chemicals in the world, and a hydrogen fuel cell emits as its output only electricity, heat and water. It holds great potential for our nation's energy independence, while potentially providing a clean and renewable supply of electricity for all electrical needs...."

"The students were working with state of the art technology," said Young. "This was a great learning experience for everyone."

The student-lead project took more than six months of fine-tuning each of the fuel cells the students created.

"For this one I had to cut the styrofoam and melt it to fit on top of the fuel cell," explained Jeffery, who showed off one of the cells that balances itself as it runs.

All the students designed the hydrogen fuel cells by themselves with little assistance from Young and Tim Sampson, electronic instructor at WCCC.

"During the competition, we had one fuel cell that had to meet the 10 meter range to qualify and we ended up having a cell that reached it by three inches," said Young. "They ended up winning first place in that part of the competition."

Since winning the state competition, the students have been invited to attend the national competition this summer at Pennsylvania College of Technology.

"This whole experience was a lot of fun," said Jeffery. "It was great working with the other guys through the teamwork and problem-solving that we did. I look forward to nationals."



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## Artistic ability

Matt Jeffery, a senior at the Warren County Career Center, holds one of the hydrogen fuel cells he designed for the state competition. His model won for artistic design.