

New ways to learn

New STEM class allows for in-depth learning

By ABBY ARMBRUSTER Staff Writer Published: August 24, 2012 4:00AM

DALTON DISTRICT -- Seventh and eighth grade science teacher Laura Grimm said she needed a revitalization in teaching, and what a year of planning lead her to was a class focusing on Science, Technology, Engineering and Mathematics (STEM).

Debuting this school year, Grimm received support from superintendent Scott Beatty and former Dalton Intermediate School principal Douglas Phillips to create the STEM class for eighth grade students. Students who were interested had to apply for a spot in the class. Out of 65 students who could apply, over 50 students applied for one of 40 spots for the 2012-2013 school year.

"Sometimes I feel like I am being taught things I already know and understand," STEM student Ike Neuenschwander said. "This class will hopefully allow me to move on to new things faster than I currently am."

Grimm said students of all learning types are free to join the class, not just gifted children as is typically assumed. While the girl-to-boy ratio for her STEM class is about 50/50, Grimm said most STEM careers are comprised of only 25 percent women.

One female student, Lauran Hicks, said the class sounded like fun, as Grimm provided a list of expectant topics for the students to peruse.

"I love doing projects and figuring things out," Hicks said. "I think it would be very nice to have a class that I actually have a say in what I'm learning and doing. I think this class would be perfect for me because I love doing hands-on activities."

Grimm began experimentation through hands-on activities within the first week of school, focusing on What If No Gravity (WING).

During their experiment, students played with standard items such as yo-yo's and spinning helicopter toys. They had to determine how the same toys would react in space.

Grimm's course is one semester long, with each semester focusing on slightly different aspects of sustainability and sustainable living while still being STEM-based. The first semester features focuses include local foods, a bike repair clinic and agriculture. Manure management practices, wastewater treatment and 'green' energy are some focuses for the second semester's course.

The district set aside money for 30 laptop computers that are Wi-Fi compatible in order to utilize online videos and websites to connect students with experts in STEM careers.

"It's a commitment to the idea of STEM for the district," Grimm said. Grimm said that STEM classes received national attention by President Barack Obama, who made a push for more STEM classes in 2009. In a press release dated Nov. 23, 2009, Obama said he was committed to improving STEM courses in public schools for the next decade and making it a national priority.

In addition to hands-on activities, Grimm said she has filled out grants to fund field trips throughout Wayne County, including the Ohio Agriculture Research and Development Center and Agriculture Technical Institute and a solar tour, highlighting different areas that use alternative energy.

"Nationally, science is not our best subject on standardized tests so making kids interested in (it and) motivated, that was one of my reasons (for starting the class)," Grimm said. "Another reason why is I really like cross-curricular studies. The kids are going to be reading. They're going to be writing. They're doing math. They're thinking."



Mike Schenk photo/www.buydrphotos.com Teacher Laura Grimm demonstrates, to her students, the effects of energy on the ball and the gravitational pull keeping it from floating away.

Throughout the semester, students work on an individual project, either research-based or engineering- and design-based, and will hold an open house for the public as a chance for students to showcase their work.

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