

Students get real-world tasks for their studies

A program in conjunction with the U.S. Navy is getting a trial run in some schools in the area.

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It's 2040, and Pennsylvanians must deal with disasters caused by climate change.

Contaminants have crept into groundwater. Air pollutions led to a rise in respiratory ailments. The Philadelphia area is nearly deserted within a 30-mile radius because of industrial contamination. Most routes in and out of the city are flooded.

This scenario is posed by the Real World Navy Challenge, a local program being used by a few high schools and middle schools to teach students problem-solving skills. The Delaware Valley Industrial Resource Center has teamed with the Navy and the Chester County Intermediate Unit to launch the program.

The students are asked to address the potential disasters' ramifications as residents suffer from a number of life-threatening hardships.

The challenge is intended to improve science, technology, engineering, and math skills.

To design the program, the Delaware Valley Industrial Resource Center worked with officials at the Navy Yard, said Tony DeFazio, spokesman for the resource center.

"The labor force is dipping into schools," he said. "We are building the next generation of engineers."

Russell Gallagher, principal of the 21st Century Cyber Charter School in Chester County, said that rather than "regurgitating an answer," students are "improving problem-solving skills" as they calculate the number of feet a bridge

has sunk relative to the draft of a ship, and as they figure out the number of people needed to handle a helicopter lift.

"This helps them to see that there is a reasoning behind math," he said.

At the school, the challenge is in its early stages, a voluntary extracurricular activity. Taught by Heather Galton, the program has about 12 participants and meets online for an hour every Tuesday.

"I love the program," seventh grader Delenn Fingerlow said. "It's a lot of fun, and I learn quite a bit."

She said a lot of what she learned in earth science, chemistry, and algebra related to the challenge. What she likes most, she said, is that the scenario at hand "could happen in real life."

Octavia Warren-Ward, eighth-grade teacher at North Brandywine Middle School, said teaching middle school math is challenging because students constantly ask why they need to learn such skills and how the math will relate to real life. Through the challenge, Warren-Ward said, they see how they can use math in realistic situations.

The challenge is still a pilot program. With only 60 to 70 students using it statewide, there is room for change, teachers say.

Teachers meet once every other month to discuss possible improvements and try to make the program more hands-on, Galton said.

"There is always room for improvement," Warren-Ward said. "But it's something new, as opposed to lecture."