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TOMS RIVER

Academy students embracing engineering

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TOMS RIVER — There's a banner near Thomas Hoffman's office bearing three words: believe, achieve, succeed. Those three words not only are seen by most students every day, but they constitute a philosophy lived by those students.

The Academy at Grace and Peace, a kindergarten-through-eighth-grade Christian school, recently received from Jersey Central Power & Light Company and Wall-based Innovative Engineering two grants for the school's pre-engineering program. A third contributor, who wished to remain anonymous, also donated money for the same purpose.

Altogether, \$6,000 in grants have been given to the Academy at Grace and Peace for its pre-engineering program, said Hoffman, the school's principal.

It's not just math and science. There's public speaking, writing and presentations involved. ♪

Thomas Hoffman
principal

"Students are often afraid of math and science, saying it's too hard," Hoffman said. "Here we have innovative ways to remove the fear factor, get them to embrace it."

The school's success in doing just that can be measured in the fact that about 85 percent of the academy's sixth-, seventh- and eighth-graders take the pre-engineering program elective, Hoffman said.

The academy's program started two years ago with an underwater robotics program, aided by Hoboken-based Stevens Institute of Technology.

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Pre-engineering is now a formal discipline at the school with a focus on multiple areas: inventions and innovations, electrical engineering and environmental engineering in addition to robotics.

The call for American students to pursue science, technology, engineering and mathematics, and why they should, is a familiar one.

"The United States ranks behind other countries in terms of the proportion of students who perform well in math and science and pursue degrees in these subjects," states ExxonMobil on its Web site calling for the need to improve math and science education in the U.S.

ExxonMobil is a sponsor, along with NASA and former astronaut Bernard Harris, of an annual summer science camp held in locations across the country, including New Jersey.

The company states that there is a direct correlation between excellence in those disciplines with how successful the United States will be in the 21st century.

ExxonMobil adds, "Additionally, many teachers in the United States do not have the benefit of

strong content knowledge and training specific to mathematics and science."

But the Academy at Grace and Peace is unique, and not just because of its pre-engineering program. Prior to becoming principal, Hoffman was a research scientist, and holds various patents, applications and scientific disclosures in chemistry. From that perspective, Hoffman can see that the school's pre-engineering program has more benefits to all students, not just the ones interested in technical careers.

"It's not just math and science," Hoffman said. "There's public speaking, writing and presentations involved," Hoffman said.

Plus, engineers are problem solvers, and knowing how to think differently is something that can be used in everyday life, Hoffman said.

Louis A. Scheidt, chief executive officer of Innovative Engineering, has a similar opinion.

"Engineering has its goal protecting the public safety," Scheidt said. "There are a lot of problems that need to be solved, and almost every one can be solved by engineering."

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