

CNY school district one of 27 groups nationwide recognized for math, science programs

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[East Syracuse Minoa](#) high school students are getting hands-on research experience at a wastewater treatment plant.

ESM middle school students are using Legos to learn how to build Mars rovers.

Elementary students in the district are learning about the science of farming.

The East Syracuse Minoa school district was recently one of 27 schools and groups nationally recognized for their science, technology, engineering and mathematics programs.

The district was selected for the way it works both in and outside the classroom with community and business groups so that students can see how what they learn applies to the real world, according to ESM Superintendent Donna DeSiato.

President Barack [Obama announced](#) the 27 schools and groups at the White House on Oct. 19 during an astronomy night that brought together students, teachers, astronomers, engineers and scientists to stargaze from the south lawn. The district will receive a \$10,000 grant from a network of foundations as well as money to travel to meetings in Washington, D.C.

DeSiato said the district was invited to apply, along with 75 to 100 other community groups, by the [STEM Funders Network](#), a group of foundations working to improve science, technology, engineer and math (STEM) education.

ESM has focused on improving its STEM education for about six years across many grades, school officials said. The students often work with groups outside the schools, DeSiato said.

Pamela Herrington, who teaches science classes including a college-level course at the high school, works with students on projects at the [Minoa wastewater treatment plant](#). They learn about reducing the use of fossil fuels, using less energy and what it takes to produce clean water.

Herrington said the student-led research helps them learn why research, accuracy and properly communicating the data are important. At the end of their class, they present their findings at an [Environmental Summit](#), a science symposium organized by the State University of New York College of Environmental Science and Forestry.

The summit gives the students confidence and makes them feel empowered, Herrington said. She said she wishes there were more opportunities for students to gain that confidence because it affects how they view their life and career goals.

Other ESM students, overseen by a seven-teacher team, are learning how to build Mars rovers using [Lego robotics](#).

The students video conference with engineers at NASA to ask questions and get the help they need, said Jason Fahy, an eighth grade science teacher.

"That link motivates kids and gets them to see the possibilities of their future," Fahy said.

ESM elementary students also are learning about engineering and science and how to apply it in the real world.

Christy Fahey, a math and science inquiry support elementary teacher, is teaching second graders about farming or agriculture engineering. Students ask a question about something they want to know, imagine it, plan how to do it then create it.

"Kids are naturally curious, they're natural engineers," Fahey said.