Copiague School District
Copiague, N.Y. 11726

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Copiague Connections

A GREAT PLACE TO LEARN

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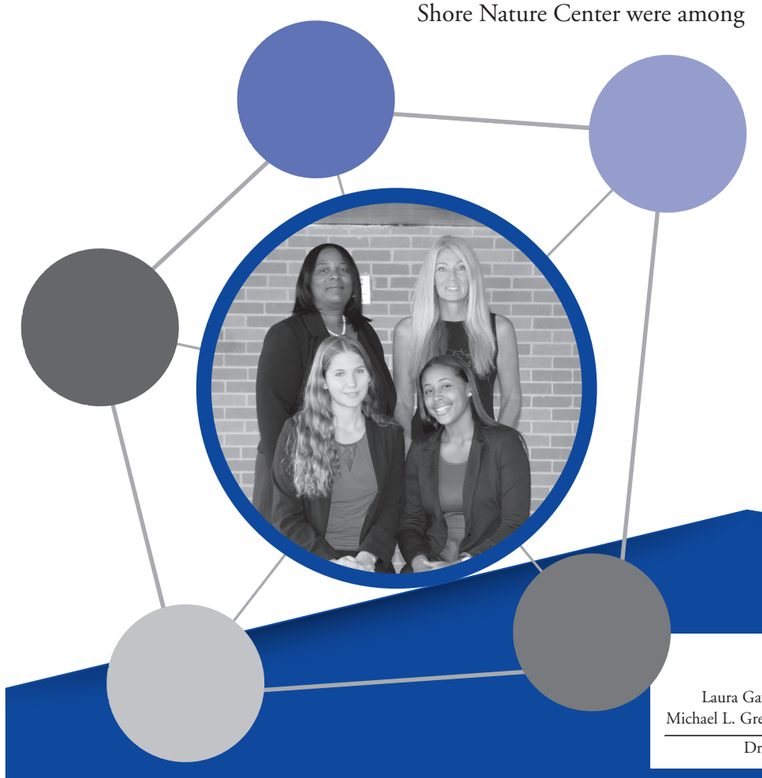
Making History

For the first time in District history, Walter G. O'Connell Copiague High School students Sofie Wilson and Jade Dickenson were named semifinalists in this year's prestigious Siemens Competition, the nation's premier competition in math, science and technology for high school students.

Sofie and Jade were selected from more than 1,600 students who submitted innovative individual and team research projects. Walter G. O'Connell Copiague High School science chairperson Renee Locker and science teacher Tracy Wenzler, John Borghardt of Bergen Point Waste Water facility, and Joshua Perry of the South Shore Nature Center were among those who mentored the students on their project "A novel investigation surrounding Geukensia demissa as a probable control mechanism for the invasive species Phragmites australis."

"This is an amazing accomplishment for our District and for the community," Ms. Locker said. "It really is a testament to the passion, hard work and dedication of these students and we are so proud of this honor."

Launched by the Siemens Foundation in 1999, the Siemens Competition promotes excellence in math, science and technology and is recognized by colleges and universities as the premier math and science research competition in the United States. More than $600,000 in college scholarships are awarded to students annually through the Siemens Competition during regional and national events administered by Discovery Education.



A Growing Love for Science

Starting at the elementary level and continuing through the middle and high schools, the District works to plant the seeds of hands-on science learning by introducing new tools, academic offerings and enrichment programs.

Learning about their world, bodies and environment, elementary students were introduced to the Building Blocks of Learning science curriculum this school year. Each unit in the science toolkits culminates in a science, technology, engineering and math activity and also promotes a home-school connection.

The STEM enrichment program for grades 3-5 offers students an opportunity to engage collaboratively on larger scale learning projects. STEM prepares students to be critical and creative thinkers, problem-solvers and innovators. Each month, students delve into a range of topics that impact both the global and local community by engaging in hands-on research activities.

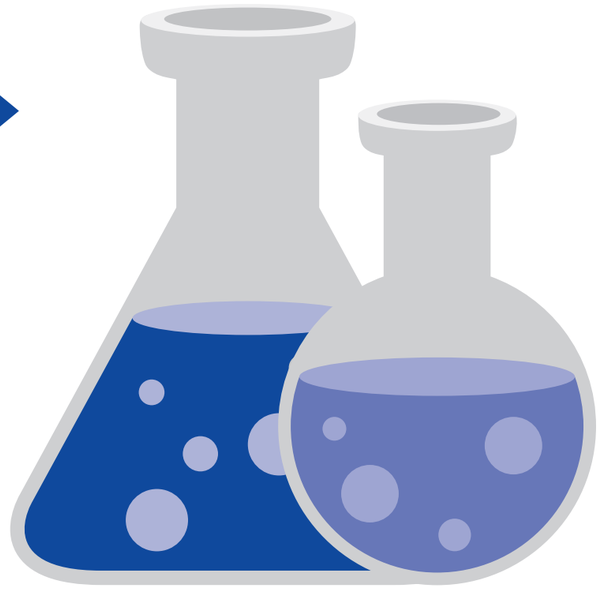
New course offerings for middle school students include a Living Environmental Regents class as well as an added section of Earth Science. More than 100 students are enrolled in the Earth Science Regents class, which offers one high school credit, according to middle school science chairperson Dr. Daniel Leccese.

In an effort to bridge the gap between the middle school and high school science research programs, Dr. Leccese is helping students make the connection at a younger age. Select sixth and seventh grade students take part in a summer research program and compete in local science competitions, where they have placed as national finalists.

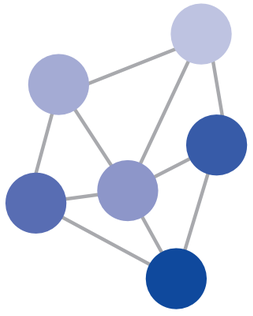
High school students can choose from science electives that range from forensics to astronomy to marine science and STEM exploration. After-school clubs and activities include the Robotics Club, Science Olympiad and the Tree Huggerz Club.

The science research program exposes students to the research process, helps them develop the skills necessary to write research papers and participate in local and national science competitions.

The STEM enrichment program provides quality, inquiry-based learning experiences for high-performing students. Elementary students throughout the District come together each week in a collaborative learning environment.



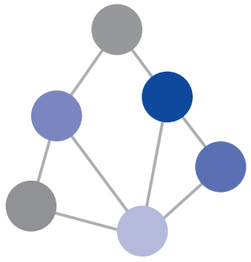
New to the middle school this year is the Living Environment Regents level class. In its inaugural year, the course has 26 students enrolled.



The elementary science program, Building Blocks of Science, is a hands-on science curriculum that uses three different science kits throughout the year: Life Science, Earth/Space Science and Physical Science.

Forensic science, the application of science to the law, is a course offered to high schoolers. Students work in teams, theorize, design experiments, research forensic methodologies, synthesize information and make conclusions based on their own empirical evidence.

In late December, seventh- and eighth-graders competed in the school's annual science fair. Each student enrolled in a science or science research class was tasked with choosing a topic – either independently or with a partner – conducting an experiment, and explaining and displaying the results. The top 30 projects in all the classes were chosen for display during the fair.



Using project-based thematic learning, the STEM enrichment students have one topic to focus on each month. For January, the project was to problem-solve local issues. After researching a topic, they related the issue to a local problem and brainstormed how they could make changes within their own community.

Middle school students compete in the Babylon Covantage Ecotech contest every year and have also been named finalists in the Bright Schools Competition.

The high school's independent science research program provides students with an opportunity to conduct in-depth research into a specific area of science. Teachers/mentors provide instruction and guidance to students to facilitate successful completion of one or more research projects. Students complete authentic research projects representative of their work.

The high school's STEM Robotics class offers students a chance to learn about the manipulation of force, as well as programming skills. The Robotics Club is an after-school activity that competes in the First Robotics Competition at Hofstra University.