Naval Surface Warfare Center
Philadelphia Division (NSWCPD) in Philadelphia began implementation of the National Defense Education Program (NDEP)-supported science, technology, engineering, and mathematics (STEM) initiative in 2008. The organization works with schools in the School District of Philadelphia and in surrounding counties within the tri-state region of Pennsylvania, New Jersey, and Delaware. Schools range from inner-city, large suburban, and small rural schools. STEM initiatives which have been undertaken in Philadelphia include festivals and science fairs, classroom activities, outside classroom activities, mentorship and internship activities, and teacher and science and engineering training. NSWCPD partners with various universities and organizations to carry out these programs and is continuously looking for new opportunities to contribute to the development of talent within science, technology, engineering, and mathematics.

For more information, contact the NSWCPD STEM Outreach Coordinator at 215-897-1078.

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NSWCPD volunteers lead STEM outreach at several area elementary, middle, and high schools. Partners include Drexel University, Philadelphia University, and Temple University. Volunteers mentor hundreds of students after school to increase student proficiency in STEM skills.

NSWCPD hires college and high school students each summer as paid interns to work with mentors on projects to give students an understanding of the day to day job of Naval Engineering and what it means to participate in an engineering project from start to finish. The Science and Engineering Apprenticeship Program is for high school students (http://seap.asee.org). The Naval Research Enterprise Internship Program is open to undergraduate and graduate college students (http://nreip.asee.org).

NSWCPD partners with local universities for two-week summer camps for underserved and underrepresented students. The camps challenge students with curriculum in energy, robotics, and automation. The camps increase awareness and interest in STEM careers particularly careers in engineering, power and energy, and national security and defense.

The SeaPerch Challenge requires students (Middle and High School) to build underwater remotely operated vehicles (ROV) according to Navy requirements and within an allowable budget to compete in the Greater Philadelphia SeaPerch Challenge. The goal is to increase student interest in robotics, science, mathematics, engineering and technology and to introduce students to naval engineering.

NSWCPD conducts the Naval Engines Design Program. It is a cohort of classroom, laboratory, and hands-on learning about Navy shipboard propulsion and power generating machinery including gas turbines, diesel engines, steam turbines, and machinery controls.

The Philadelphia Science Festival is an annual celebration of science featuring lectures, debates, hands-on activities, special exhibitions and a variety of other informal science education experiences for Philadelphians of all ages. NSWCPD volunteers support activities produced by local universities.