

SECME National was founded in 1975 with the following guiding principles:

## Mission

To increase the pool of historically underrepresented and underserved students who will be prepared to enter and complete post-secondary studies in science, technology, engineering and mathematics (STEM), thus creating a diverse and globally competitive workforce.

## Vision

To be a beacon and benchmark for excellence and equity in pre-college education.

## Who can compete in SECME?

SECME is open to all public, charter and private schools in Palm Beach County. Competition levels exist for elementary, middle, and high school level students.

Individual SECME clubs are organized and managed on a school by school basis. Some school-based clubs may require concurrent course enrollments, minimum age, or a specified Grade Point Average. See your school SECME Coordinator for details. To learn if your school currently participates in SECME, visit us at the website below.

## Our Member University

Florida Atlantic University's College of Engineering and Computer Science in Boca Raton is the SECME Member University for both Palm Beach and Broward Counties. Together with our industry and business partners, we make up the Southeast SECME Alliance.



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<https://sites.google.com/palmbeachschools.org/pbcsecme>

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Teaching and Learning



# The School District of Palm Beach County SECME Program

Science Engineering Communications  
Mathematics Enrichment





## Did you know?

The School District of Palm Beach County has produced winners at the SECME National Student Engineering Design Competition Finals nearly every year since its inception.

## SECME Competitions

SECME students and clubs work on varied engineering design projects all year. Their work is put to the test in the spring at the culminating District SECME Olympiad Competition.

### Mousetrap Car

The SECME flagship event. Teams of three design and develop a working vehicle running solely on the power of a mousetrap. The winning teams move on to the SECME National Competition Finals.

### Water Bottle Rockets

Teams of three students create and test the hang time of a rocket comprised of recycled materials. Rocket launches are powered by compressed air and water. Winning teams move on to the SECME National Competition Finals.

### FPL Generator Build

Teams of three students build a working generator powered by wind (middle school), water (high school), or a mechanical drill (elementary school). This event was developed by our community partners at Florida Power and Light.

### Balsa Wood Bridges

Teams of three students design a load-bearing bridge, tested with an official crusher. Bridges are solely comprised of  $\frac{1}{4}$ " x  $\frac{1}{4}$ " balsa wood and glue.

### STEAM Competitions

Students may also compete in Brain Bowl trivia, on-the-spot build challenges, and still other competitions involve the Arts. Students compete in essay and poem writing as well as the SECME school banner contest. Winning essays move on to the SECME National Competition Finals.

## Why SECME?

Students who participate in SECME programs across the nation consistently out-perform peers on the S.A.T., improve their science and math performance, and choose STEM majors at a higher rate than the national average.

In addition, participating in the School District of Palm Beach County's SECME program provides the following benefits:

- Teaches about careers in the fields of STEM
- Prepares students both academically and socially for admission and success in college and careers (particularly in science, technology, engineering and mathematics)
- SECME Member Universities are committed to assisting parents and students through the college readiness and admissions process
- Promotes positive attitudes towards STEM
- Provides students with authentic, hands-on experiences through scientific investigation and engineering design
- Reading, writing and research involved help students to achieve the rigor and critical thinking necessary for success in college and career
- Fun and interesting programs, activities, and community- or college based mentors