

NSBE'S MISSION IS
"TO INCREASE
THE NUMBER OF
CULTURALLY
RESPONSIBLE
BLACK ENGINEERS
WHO EXCEL
ACADEMICALLY,
SUCCEED
PROFESSIONALLY
AND POSITIVELY
IMPACT THE
COMMUNITY."



NSBE JR MEMBERSHIP
IS AVAILABLE TO ALL
STUDENTS IN GRADES 6-12.
MEMBERSHIP IS \$5, BUT THE
LEVEL OF EXPOSURE TO
ENGINEERING IS PRICELESS.
JOIN TODAY AT NSBE.ORG

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NSBEJR

PRE-COLLEGE INITIATIVE

The Pre-College Initiative (PCI) program is designed to stimulate the interest in science, technology, engineering, and mathematics fields, or STEM. The goal is to encourage students in grades K-12 to attend college and pursue technical degrees. Our PCI program provides activities to help students discover firsthand how engineering and technology relate to the world around them and discover the excitement of academic excellence, leadership, technical development and teamwork.





VEX Robotics Competition (VRC) is an exciting engineering challenge presented in the form of a game. Year round students, with guidance from their advisors and mentors, build innovative robots and compete year-round in a variety of matches. In addition to learning valuable engineering skills, students gain life skills such as teamwork, perseverance, communication, project management - and critical thinking.

The VEX Robotics Competition prepares students to become future innovators: 95% of participants report an increased interest in STEM subject areas and pursuing STEM-related careers.

The Ten80 Student Racing Challenge: Ten80 STEM Initiative™ is a supplemental STEM curriculum of Ten80 Education's National STEM League. Students in grades 6 – 12 form Ten80 Student Racing Challenge teams that use model (1:10 scale) radio-controlled cars and mimic professional motorsport teams.

The first weeks of engagement are spent learning how systems operate and how to organize data, rather than following "build" directions. After being "certified" in mechanical systems, data and problem solving students spend the duration of the program year rebuilding the car with improved parts. Once students master the fundamentals of problem solving, data and mechanical systems, they specialize in areas of personal interest, to include project management, marketing and business. The curriculum specifically addresses Enterprise and Data-Driven Design projects. NSBE's Ten80 STEM Initiative finals take place at the Annual Convention.

The NSBE Jr. Explorer Technical Innovations Competition is an annual national science fair program. This program gives pre-college students the opportunity to compete in and explore the many applications of science through projects and presentations. As they follow the program calendar, participants submit their project summary and research paper for scoring. Projects and presentations are judged and scored at the national competition. Students conduct research for no more than 12 months before the national competition, which is held at NSBE's Annual Convention.



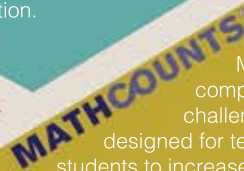
FOR MORE INFO ON THESE PROGRAMS AND MORE VISIT WWW.NSBE.ORG



The KidWind Project is a team of teachers, students, engineers, and practitioners exploring the science behind wind and other renewable forms of energy. The goal is to make renewable energy widely accessible through hands-on activities that are challenging, engaging, and teach basic science and engineering principles.

Students dedicate their year of engagement to building a small turbine to produce as much power as possible. They are tasked with thinking about the best construction techniques and the most innovative design to make their turbine operate. NSBE's KidWind Challenge competition takes place at the Annual Convention.

The MATHCOUNTS competition is a fun and challenging math program designed for teams of 4 U.S. middle school students to increase their academic and professional opportunities. During the program year, MATHCOUNTS coaches provide thought-provoking, non-routine, fun problems to engage, challenge and make each participant a better problem solver.



Try-Math-A-Lon (TMAL) is a yearlong tutoring program meant to foster good study habits for minority students groom them for success in STEM courses, help prepare them for standardized exams such as the ACT and SAT, and promote healthy competition and good sportsmanship. The TMAL competition is held between teams of four NSBE Jr. members and one alternate. Each team is composed of high school students in grades 9–10 or 11–12. Participants are provided access to an online mathematics resource to support their yearlong learning. This tool enables students to earn points during the program year, as they engage in various activities. Students with the top scores win prizes. Students compete year round and advance to a culminating event at the national competition, which is held at NSBE's Annual Convention.



For children aged 6-9, Junior FIRST® LEGO® League (Jr.FLL®) captures young children's curiosity and directs it toward discovering the wonders of science and technology. This program features a real-world scientific concept to be explored through research, teamwork, construction, and imagination.

Throughout the program year, adult coaches guide teams building a moving model made of LEGO® bricks to and developing a Show Me Poster to illustrate their journey. NSBE's Jr. FLL showcase takes place at the Annual Convention. Students must be a participant of an active NSBE Jr. chapter.

FIRST® LEGO® League (FLL) introduces NSBE Jr. members (aged 9-14) to real-world engineering challenges by having them build LEGO-based robots to complete tasks on a thematic playing surface.

During the course of the program year, NSBE Jr. FLL teams, guided by their imaginations and adult coaches, discover exciting career possibilities and, through the process, learn to make positive contributions to society. NSBE's FLL championship takes place at the Annual Convention.



The Math Video Challenge is an innovative program that empowers students to be math teachers, video producers, actors and artists — all at the same time! Working together in teams, students create their own videos about math problems and the concepts associated with them. Formerly known as the Reel Math Challenge, the Math Video Challenge is designed to get students excited about math while giving them the opportunity to hone their creativity and communication skills. During the year, students form teams consisting of four students each to create a video that teaches the solution to one of the problems from the MATHCOUNTS School Handbook and also demonstrates the real-world application of the math concept used in the problem.

