

IT STARTS HERE.



# INSPIRE

## ELEMENTARY & MIDDLE SCHOOL PROGRAMS



IT STARTS HERE.



### ★ **Camp Invention** [K - 5th grade]

A summer STEM enrichment experience featuring collaborative learning opportunities led and administered by local teachers. Participants engage in fun, hands-on activities using a science-based, age-appropriate curriculum and a problem-based learning approach to inspire the pursuit of STEM. The Army provides engagement scholarships for students that are nominated by teachers in areas where the Army has research laboratories. Students are encouraged to continue direct engagement with the research facilities through GEMS.

### ★ **Junior Solar Sprint (JSS)** [5th - 8th grade]

An inquiry-based engineering challenge through which students design, build, and race model solar cars. Students develop teamwork and problem solving abilities, investigate environmental issues, gain hands-on engineering skills, and use principals of science and math to get the fastest, most interesting, and best crafted vehicle possible. Online portal provides resources and connections to education standards for teachers, mentors, and students, as they work through the design and build process.

★ **eCYBERMISSION** [6th - 9th grade] | A web-based science, technology, engineering and math (STEM) competition for students that promotes self-discovery and enable all students to recognize the real-life applications of science, math and technology. Using either the scientific inquiry method or the engineering design process, students form teams of three to four students and propose a solution to a real problem in their communities, competing for state, regional and national awards.

*"The AEOP programs that I participated in, from GEMS to SEAP to CQL, have given me valuable, hands-on lab experience that I would not have attained otherwise."*

*~ GEMS-SEAP-CQL Student*

*"eCYBERMISSION has increased my confidence and passion that I can excel and contribute towards to the STEM fields."*

*~ eCYBERMISSION Student*

# EXPLORE

## HIGH SCHOOL PROGRAMS

# ACHIEVE

## COLLEGE & CAREER DEVELOPMENT PROGRAMS



### ★ Gains in the Education of Mathematics & Science [GEMS]

[5th - 12th grade] | A summer STEM education program that provides students and teachers with hands-on learning experiences in a professional laboratory environment working alongside high school and college-aged mentors, and senior Army scientists and engineers. One- to four-week sessions are hosted at Army laboratories and educational institutions and range from beginning to advanced activities.

### ★ UNITE [9th - 12th grade]

Promotes college majors and careers in engineering by providing high school students, historically underserved and underrepresented in STEM areas with the opportunity to participate in a hands-on academic and enrichment summer program in engineering.

### ★ Junior Science & Humanities Symposium [JSHS]

[9th - 12th grade] | Supports and recognizes high school students as they present their original research pursuits in the sciences, technology, engineering and math, competing for scholarships and awards at both regional and national symposia. Students learn from their interactions with practicing researchers who provide enrichment opportunities at the symposia and discussions that allow participants to look beyond high school to future post secondary education and career development in STEM.

*"The [JSHS] experience was absolutely life-changing, and has reaffirmed my interest in majoring in a STEM field in college."*

~ JSHS Student

### ★ Internships [High School & College]

Provides students with hands-on research experiences in both military laboratory and university laboratory settings. Students have the unique opportunity to be mentored and trained by senior Army, or Army-sponsored researchers while conducting real-world research. All students are placed at a laboratory within commuting distance of their residences and receive a stipend for participation. Applications are accepted year round and vary according to each program.

- Science & Engineering Apprentice Program [SEAP]
- Research & Engineering Apprenticeship Program [REAP]
- High School Apprenticeship Program [HSAP]
- College Qualified Leaders [CQL]
- Undergraduate Research Apprenticeship Program [URAP]

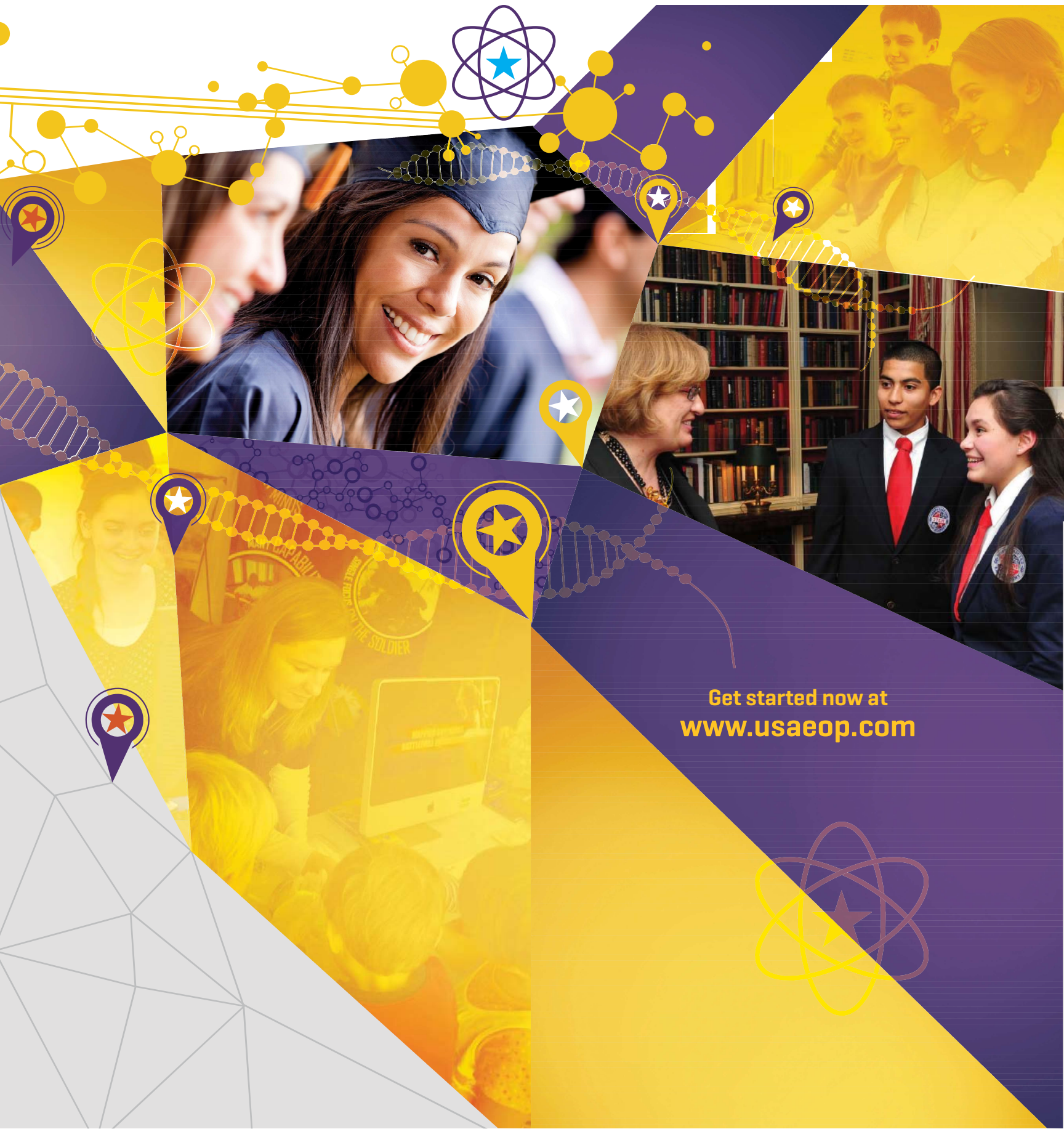
### ★ Scholarship & Award Opportunities [Undergraduate and Graduate]

The Department of Defense offers many opportunities for students to continue their pursuit of STEM education beyond high school. Additional information on these opportunities can be found at [www.usaeop.com/scholarships](http://www.usaeop.com/scholarships).

- Science, Mathematics and Research for Transformation (SMART) Defense Scholarship for Service Program
- National Defense Science and Engineering Graduate Fellowship [NDSEG]

*"I believe REAP set me apart from other applicants and has been one of the main factors for my acceptance into Brown and for that I am extremely grateful. I hope this program...continues to provide opportunities for students who typically would not have exposure to research opportunities."*

~ REAP Student



Get started now at  
[www.usaeop.com](http://www.usaeop.com)

The United States Army has long recognized that a scientifically and technologically literate citizenry is our nation's best hope for a secure, rewarding, and successful future.



eCYBERMISSION students get hands-on experience with Army technology at the National Judging & Education Event!

For over 50 years, the Army has supported a wide range of educational opportunities in science, technology, engineering, and mathematics (STEM) for our youth, college and graduate students, as well as our valued teachers.

The need for STEM literacy - the ability to understand and apply concepts from science, technology, engineering and mathematics in order to solve our nation's most complex problems - is growing exponentially. The requirement for STEM literacy goes beyond the traditional STEM occupations of scientist, engineer and mathematician. The Army also has a growing need for highly qualified, STEM-literate technicians and skilled workers in advanced manufacturing, logistics, management and other technology-driven fields. Success and sustainment for the Army's Science & Technology Enterprise heavily depends on the continuous development of innovative solutions that protect the greatest asset - our Soldier - and our nation, against current and emerging threats.

Through AEOP, the Army continues its long tradition and strong commitment to the advancement of STEM education and literacy. Leveraging its most valuable assets - world-class scientists and engineers and research facilities - AEOP offers our nation's youth and teachers a collaborative, cohesive portfolio of opportunities that effectively engage future workforce generations in meaningful, real-world STEM experiences, competitions and paid internships.

## IT STARTS NOW: Your future with AEOP!

STEM talent is essential to delivering innovative solutions for the nation, and AEOP is committed to engaging, inspiring and attracting that next generation of STEM talent.

### STUDENTS

The Army has it all - top science and engineering talent, world class research facilities and vital real-world research opportunities. AEOP connects you with exciting, hands-on STEM educational opportunities from where you are, through every phase of your educational career, and at no cost to participants. There are a number of reasons why you should participate in AEOP:

- **Mentoring:** Work side by side with Army scientists and engineers in a DoD laboratory setting and gain actual research experience while being mentored by experts in their fields.
- **Real-World Research Opportunities:** Learn to apply the principles of engineering and scientific method to real life as you identify an actual problem in your community and use teamwork and creative thinking to solve it.
- **National Competitions:** Compete for national recognition, scholarships and other awards in all of the AEOP National STEM Competition programs.
- **Summer Programs:** Stay on the cutting edge of STEM innovation even while school is out by signing up for summer camp - hosted at DoD laboratories across the country.
- **Career Exploration Events & Internships:** Explore your future career potential with Army-hosted Career Exploration Events, meet with Army mentors and learn more about the resources available to you to help you attain your ultimate career goal.

For more information about how you can participate in AEOP, visit: [www.usaeop.com](http://www.usaeop.com).

### EDUCATORS, PARTNERS & MENTORS

AEOP is committed to delivering resources and programs that empower our educators to exponentially impact students. To ensure that our programs and resources are both complimentary to classroom instruction and integration, we rely on the expertise, knowledge and input of our educators, partners, mentors and other volunteers like you! Some AEOP programs include program implementation incentives.

There are countless opportunities to get involved with AEOP as a volunteer:

- Curriculum Development
- Scientist & Engineers in the Classroom
- STEM Competition Mentoring & Project Judging
- Teacher Professional Development
- Mentoring
- Strategic Partnership Mini-Grants

To learn more about how you can get involved in AEOP, visit: [www.usaeop.com](http://www.usaeop.com).

“WHATEVER YOU DO,  
OR DREAM YOU CAN,  
BEGIN IT.  
BOLDNESS HAS GENIUS  
AND POWER AND  
MAGIC IN IT.” -GOETHE

CAMP INVENTION  
GEMS  
UNITE

**EXPERIENCES**

JSS  
JSHS eCYBERMISSION

**INTERNSHIPS** COMPETITIONS

SEAP | REAP | HSAP | CQL | URAP

0100100100001001001001000001011101010010100101010101110000010

YOUR **FUTURE** FRIENDSHIPS

**SCHOLARSHIPS** GROWTH!

& FELLOWSHIPS OPPORTUNITIES.

\*\*\*\*\*

STRENGTH

SMART | NDSEG





"I have not failed. I've just found 10,000 ways that won't work."

~ Thomas Edison



◀ Scan this QR code to download the AEOP app!

[www.facebook.com/goAEOP](http://www.facebook.com/goAEOP)  
[www.twitter.com/usaeop](http://www.twitter.com/usaeop)  
[www.flickr.com/photos/usaeop](http://www.flickr.com/photos/usaeop)  
[www.youtube.com/user/usaeop](http://www.youtube.com/user/usaeop)  
[www.pinterest.com/usaeop](http://www.pinterest.com/usaeop)  
[www.usaeop.com](http://www.usaeop.com)

