

DEPARTMENT OF DEFENSE
SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS

DoD STEM

Overview

4-H Military Partnership Conference

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Basic Research Office

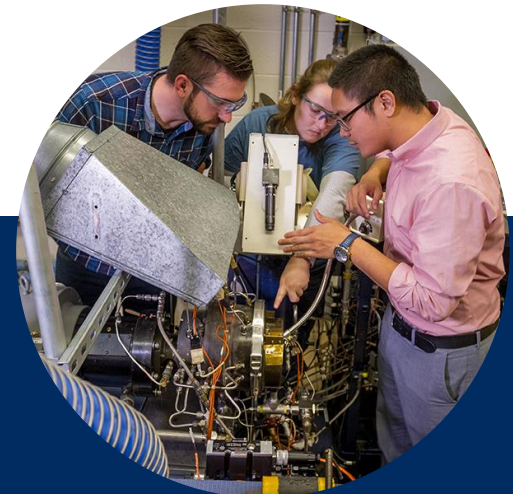
May 21, 2024



Department of Defense
DoDSTEM
Science · Technology · Engineering · Mathematics

Why STEM?

The Department of Defense requires **diverse, high quality, and agile STEM talent.**



National security makes it imperative that the United States have available a **substantial, high quality STEM workforce.**

(National Academies of Sciences. 2013)

Why STEM?

The Need for Diversity in DoD STEM Workforce – **Diversity Drives Innovation!**

Shifting demographics: the U.S. population is projected to be **more than 40% minority** in upcoming years.

(U.S. Census, 2020)



Why STEM?

Preparation of students for future STEM careers **starts at K-12.**

Only **20% of college bound seniors** are ready for courses typically required for a STEM major.

(National Science Foundation, 2018)



DoD STEM Vision

A **diverse and sustainable STEM talent pool** ready to serve our Nation and extend the DoD's competitive edge.

DoD STEM Mission

Inspire, cultivate, and develop **exceptional STEM talent** through a **continuum of opportunities** to enrich our current and future DoD workforce poised to tackle evolving defense technological challenges.



What encompasses DoD STEM?

DoD STEM is inclusive of Department-wide efforts that aim to **inspire, cultivate, and develop a diverse and exceptional STEM talent** through a continuum of meaningful STEM learning opportunities across the Pre-K-Postdoc continuum.

The National Defense Education Program (NDEP) is one of the largest STEM efforts in the Department.

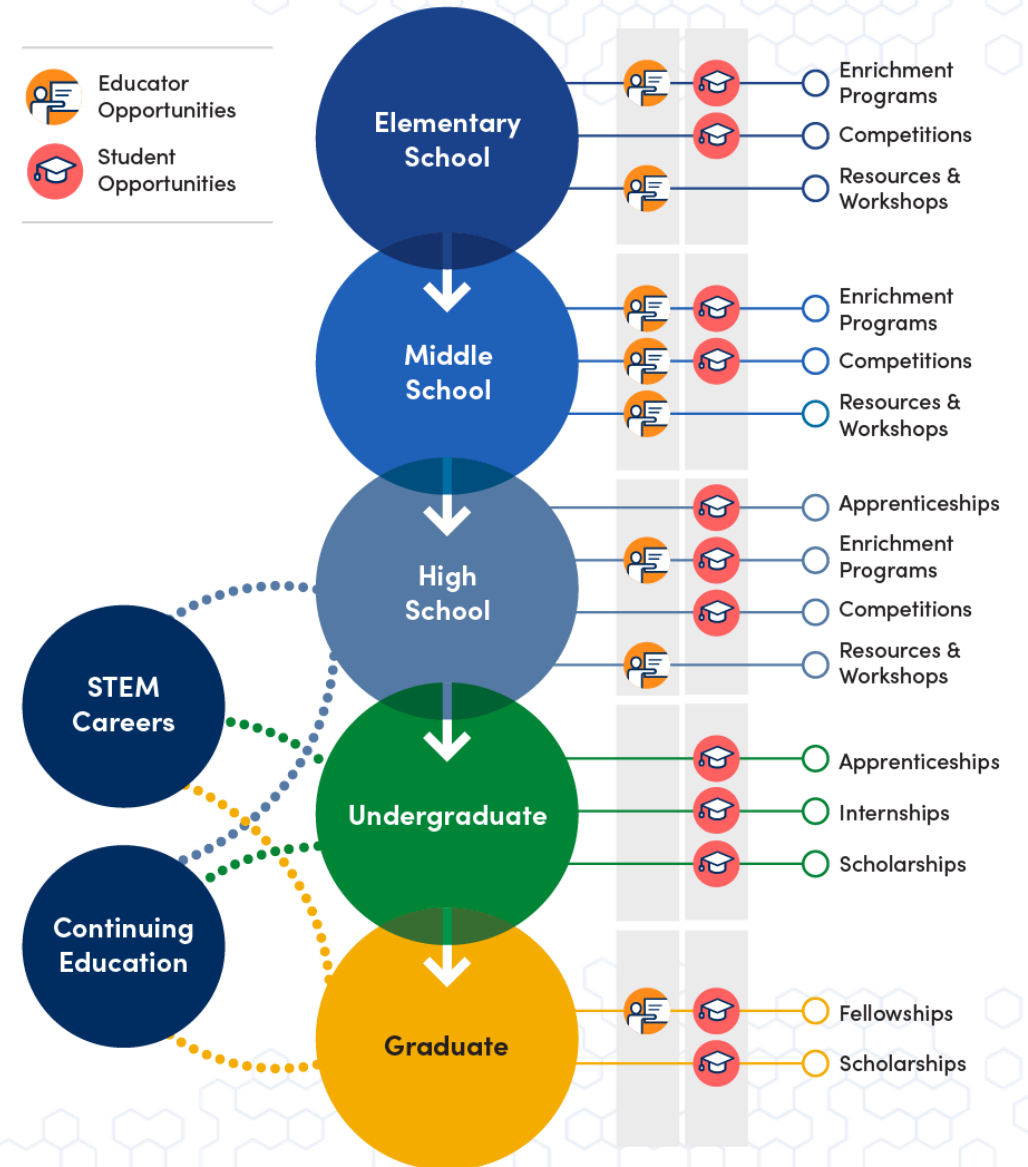
DoD STEM reaches about **944K students** & **31K educators** annually



DoD STEM Programs and Reach

DoD STEM leverages scientists and engineers at Defense laboratories and Partner organizations to provide unique STEM learning experiences across the K-20 education continuum.

Opportunities include **educational programs, internships, scholarships,** and **career development for educators and students.**



National Defense Education Program (NDEP)

NDEP is part of the broader Department-wide effort under DoD STEM, which works collectively with partners from academia, industry, not-for-profit organizations, and leverages DoD components, defense laboratory enterprise and other government entities to:



Build strong foundations in STEM literacy



Increase diversity, equity, and inclusion in STEM



Prepare the STEM workforce of the future

NDEP programs include:

SMART

SCIENCE, MATHEMATICS,
AND RESEARCH FOR
TRANSFORMATION

PART OF THE NATIONAL
DEFENSE EDUCATION PROGRAM

SMART
Scholarship-for-
Service Program

DSEC | DEFENSE STEM
EDUCATION
CONSORTIUM

PreK-16 STEM
Education &
Outreach; Defense
STEM Education
Consortium
(DSEC)



NDEP grants
(intramural and
extramural)

SMART

SCIENCE, MATHEMATICS,
AND RESEARCH FOR
TRANSFORMATION

PART OF THE NATIONAL
DEFENSE EDUCATION PROGRAM

SMART Program Overview

- SMART funds scholarships across 24 STEM disciplines critical to national security and serves as a workforce development program for the DoD
 - Increases the flow of new, highly skilled technical labor into the DoD
 - Enhances the technical skills of the current civilian workforce
- Awards can be made to students pursuing a BS, MS, or PhD in a STEM discipline
- Scholars serve a 1-for-1 Civilian employment commitment at a DoD lab or facility upon graduation



SMART
SCIENCE, MATHEMATICS,
AND RESEARCH FOR
TRANSFORMATION
PART OF THE NATIONAL
DEFENSE EDUCATION PROGRAM

smartscholarship.org

SMART

SCHOLARSHIP-FOR-SERVICE PROGRAM

Defense Created by Scientists and Engineers

BENEFITS FOR SMART SCHOLARS

The Science, Mathematics, and Research for Transformation (SMART) Scholarship-for-Service Program, funded by the Department of Defense (DoD), is a combined educational and workforce development opportunity for STEM students.



Full Tuition

Full tuition, annual stipends, and book/health allowances to students pursuing STEM degrees.



Internships

Receive invaluable experience during summer internships with the Department of Defense.



Career

Pursue full-time employment with the Department of Defense after graduation.

ELIGIBILITY AND PROGRAM REQUIREMENTS



U.S. Citizen



Minimum 3.0 GPA



Degree in STEM



18 Years or Older



Minimum 1 Year



Obtain Security Clearance



Complete Internship



Accept DoD Employment



Jennifer Aneke

“I’ve been able to apply my technical expertise to a variety of areas that aid the Navy’s Mission. The SMART Scholarship opened up many doors for professional growth and the ability to better serve our country.”



SMART.DoD.Scholarship



@SMART_DoD



SMART Scholarship



SMART.DoD

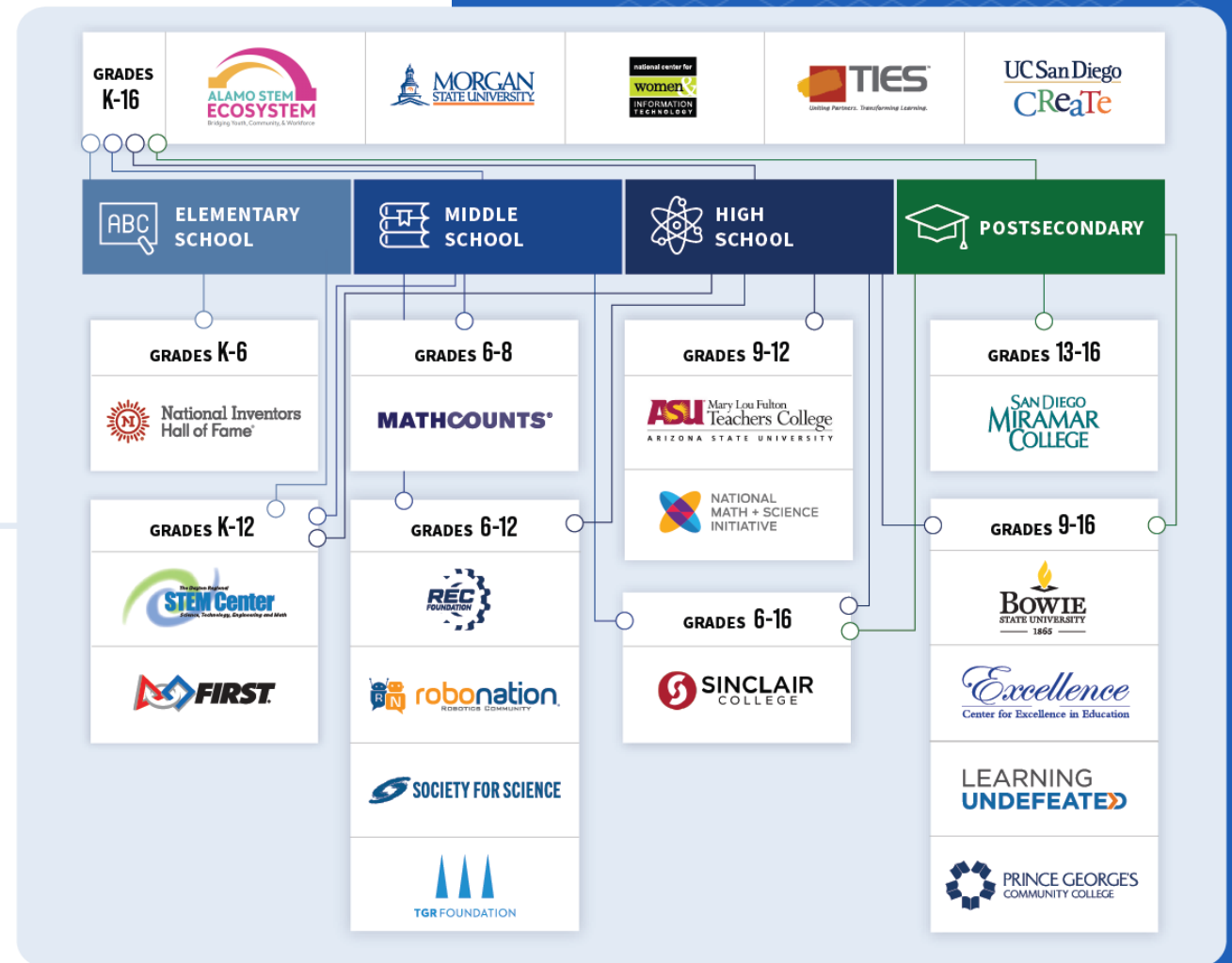
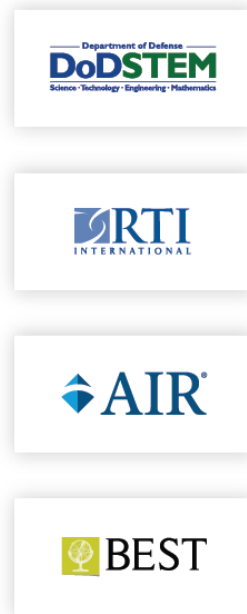
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DoD SMART Scholarship

Defense STEM Education Consortium (DSEC)

DSEC is a collaborative partnership between academia, industry, not-for-profit organizations, and government that aims to broaden STEM literacy and develop a diverse and agile future workforce to power the innovative defense infrastructure of the United States.



DoD STEM Opportunities Page

<https://dodstem.us/participate/opportunities/>



DoD STEM Opportunities

Build robots, solve real world problems, and work at the cutting edge of technology.

DoD STEM has opportunities for students of all ages, educators, and professionals. Check out these STEM programs, internships, scholarships, and more!

Search Opportunities

Filters

STATE

Select One

Find Opportunities near me

AUDIENCE

Early-career professionals

Educators

Students

volunteers

TYPE

Competition

Educator Development

Fellowship

Internship or Apprenticeship

Program

Scholarship

GRADES

Grades K-5

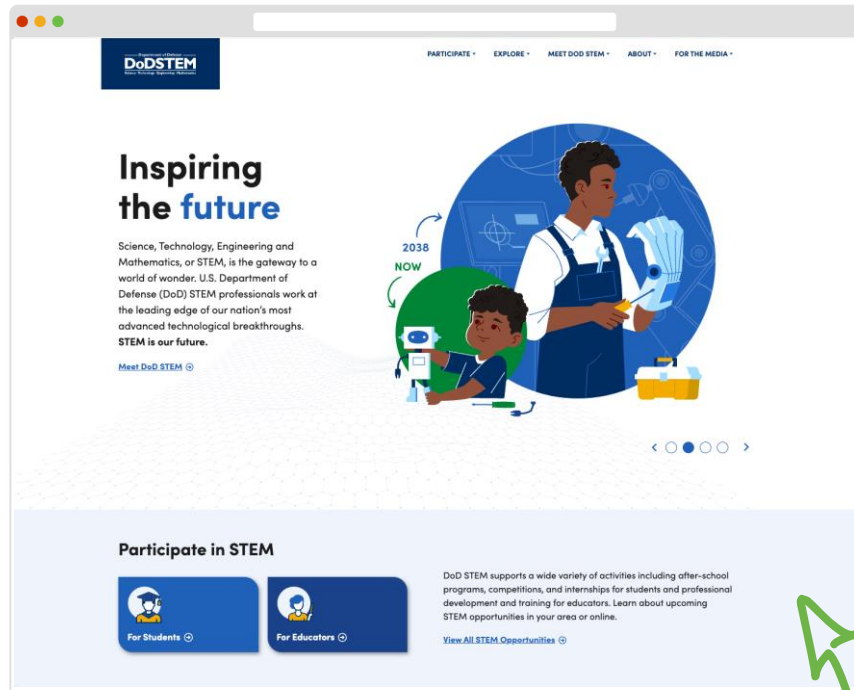
Grades 6-8

Grades 9-12

Undergraduate

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