



AEROSPACE EDUCATION

Impact Statement 2022

Accessible STEM education begins with highly prepared educators and mentors who can **INSPIRE** and **SUPPORT**



Our Mission:

Empower members
with opportunities
and resources to
promote aerospace-
related **STEM**
education and
careers.



AEROSPACE EDUCATION OVERVIEW

Civil Air Patrol's (CAP) Aerospace/STEM Education Department offers over **40 free, fun and engaging STEM curriculum products** for members in squadrons and classrooms throughout the nation.

We serve youth in pre-K through 12th grades and young adults. In 2022, we reached **500,000 youth** with our hands-on aerospace/STEM lessons and materials.

DID YOU KNOW?



All our programs meet **NATIONAL EDUCATION STANDARDS.**



Teachers and educators can become members with a one-time fee of \$35. Included with their membership, teachers and educators can apply to receive the curriculum books, lesson plans, STEM kits, manipulatives and free annual renewals- all worth hundreds of dollars.

ENGAGEMENT DATA 2022

Post-pandemic
student outreach

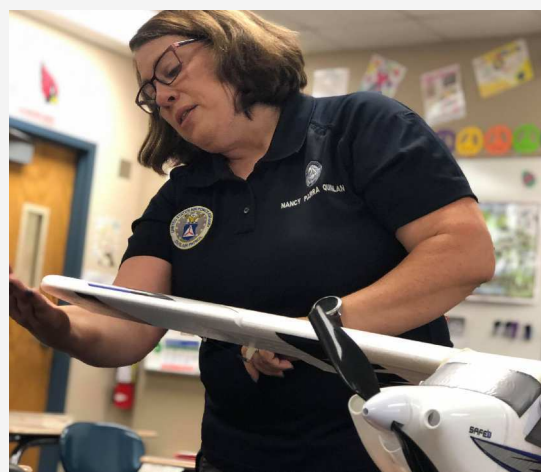
500,000+

Aerospace Education
Members (Teachers)

5,400

Aerospace Education
Officers (Volunteers)

3,500





STEM Kit Program

Aerospace Education's STEM Kit Program provides over **21 FREE STEM kits** and other resources for hands-on, inquiry-based learning. The kits are used by cadets in squadrons and students in classrooms across the nation.

80%

% of participants more interested in STEM after being involved with the STEM kit program

47,000

of STEM kits AE has distributed over the past decade

2 million

of participants that have used CAP's STEM kits since 2013



TOP Flights

One of the most **exciting benefits** an AE membership provides teachers across the country is the opportunity to experience the wonders of aviation by going on a flight in a CAP airplane. The Teacher Orientation Program (TOP), offered at no cost to the teacher, provides the chance to fully immerse in the experience of flight and share it with students back in the classroom.

ACE Program

Aerospace Connections in Education (ACE) is a free, fun, interactive aerospace/STEM program used by teachers. It is designed to engage and inspire youth in grades K-6 toward an interest in aviation, space, and other STEM-related careers. Educators receive full lesson plans and a class set of all materials needed to conduct many of the STEM lessons, saving them hundreds of hours in planning.

My students' science scores were the highest in the district, with an overall 37% improvement in state testing scores across the board. I strongly believe it has a lot to do with the materials and lessons I was able to utilize with the ACE program and CAP materials!

~ Mr. Luke McKinley, K-6 Science Lab Teacher,
Martin Luther King School,
Toledo, OH

- ✓ A **new record** was set in 2021-2022 with 84,700 ACE students (a 41% increase from the previous year)!
- ✓ Over **520,000** ACE students have been reached since the program's inception in 2007.



The Aerospace Education Department at CAP is committed to providing access to **high-quality** and **accessible** STEM resources for teachers and youth, and having a measurable impact on increasing opportunities for diverse populations in STEM education and careers.





83%

Of members report using AE products at least several times a month



3,164

of K-12 schools that use AE programs across the nation



57%

Of AE members are Title I teachers



334

of homeschools, libraries, museums, universities and other organizations that use AE programs across the nation

OUTCOMES FOR 2022

80% INTEREST

Show increased interest in STEM after participating in AE programs

65% TEAMWORK

Show improved teamwork skills after participating in AE programs

44% BEHAVIOR

Show improved behavior after participating in AE program

28% PRE & POST TESTS

Average increase in test scores after participating in AE program

17% GRADES

Show improvement in grades after participating in AE program

14% ATTENDANCE

Show improved attendance after participating in AE program





For more information on AE STEM curriculum, products or programs, or becoming a CAP member volunteer contact:
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THANK YOU

We would like to give a special thanks to CAP **volunteer members** for their tremendous support and efforts.

"Volunteers Serving America's Communities, Saving Lives, and Shaping Futures"