



Civil Air Patrol's Aerospace/STEM Education Program

Investing in the Future

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

Civil Air Patrol, the Auxiliary of the United States Air Force, and, a non-profit, humanitarian organization, has three major missions: Emergency Services/Disaster Relief/Homeland Security; Cadet Programs for youth ages 12 and up; and Aerospace/STEM Education for youth and educators nationwide.

CAP's efforts to support future STEM workforce needs: Estimated that more than 2 million STEM-related jobs will go unfilled in the next five years, CAP is working to illuminate, motivate, and educate disinterested and uninformed youth about pathways toward aerospace-related STEM career fields.

CAP provides free aerospace/STEM education products and programs to youth via two avenues:

- 1- **CAP Squadrons:** CAP has 1000+ cadet squadrons across the nation which work with 25,000+ CAP cadets; most located on or near a USAF installation. Each squadron has one or more Aerospace Education Officers (AEOs) who work with the cadets to promote the Aerospace/STEM Education mission. The [CAP Cadet Program](#) offers varied [aerospace education activities](#) and aviation opportunities, to include [flight scholarships](#) and aviation training through the [Youth Aviation Initiative](#), which can lead to earning a Private Pilot Certificate.
- 2- **CAP Educator Members:** CAP has 5,000+ educator members, most in a special category called the [Aerospace Education Member \(AEM\)](#). These educator members work with and impact over 500,000 K-12 youth annually across the nation in public (50% Title I), private, parochial, charter, and home schools; after-school programs; youth organizations (scouts, 4-H, Boys/Girls clubs, etc.); libraries; community centers; and museums.

Youth outcomes from [educator member programs](#) include:

83% more interested in STEM 65% better teamwork
44% improved behavior 17% improved classroom scores 14% better attendance

CAP's unique free aerospace/STEM education products and programs include:

- 1- Over [40 educational products](#) offered in print and online. These K-12 products are aligned with national academic standards and include topics in the areas of aviation, space, and cyber.
 - 2- [K-12 STEM Kits](#) are provided to use and keep. There are 15+ available kits in the areas of aviation/space/cyber, with associated curriculum and career connections. Over 400,000 students impacted.
 - 3- The [K-6 Aerospace Connections in Education \(ACE\) program](#) includes grade-level specific, sequenced curriculum guides aligned to Next Gen Science and other national academic standards. The [ACE program](#) involved 76,500 students (61% Title I) in the 2019-2020 academic year representing every state in the U.S.
 - 4- [Teacher Orientation Program \(TOP\) flights](#) enable K-12 teachers to take to the skies in CAP powered and non-powered aircraft at local airports across the nation, an experience that is shared with their students. (500 teachers annually impact about 50,000 youth) [Cadet orientation flights](#) are also provided to CAP cadets. Both teacher and cadet orientation flight programs include detailed pre-flight instruction and safety briefings as well as in-flight experiential learning using the controls and glass cockpit. All areas of STEM are relevantly connected during these flight instructions and experiences.
- CAP has 36,000+ adult members to mentor youth. CAP squadrons connect with educator members and other organizations in collaborative programs that increase potential youth impact exponentially.

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