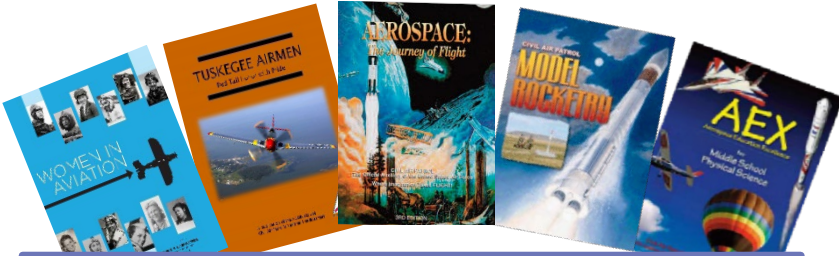# CIVIL AIR PATROL
Aerospace Education

Teach

... ordinary subjects in extraordinary ways by becoming a special member of Civil Air Patrol, the Auxiliary of the U.S. Air Force - an **Aerospace Education Member (AEM)!** With help from AEMs, CAP is helping to prepare the aerospace/STEM workforce of the future.

Engage

... youth in **captivating lessons and activities** using a variety of more than 40 national standards-aligned educational materials. CAP's free resources are available both online and in print to adapt to multiple teaching and learning styles. Additional **online references** provide an abundance of extra STEM resources.

Experience

...hands-on learning with FREE programs including
- **(Gr K-12) STEM Kits** in the areas of air, space, and cyber (see back page)
- **(Gr K-12) Aerospace Education Excellence (AEX)** six-lesson award program
- **(Gr K-6) Aerospace Connections in Education (ACE)** grade-specific program to enrich academics, physical fitness, and character education
- **(Gr 5-8) ACE Plus Adopt program** CAP squadrons support teachers' classrooms

Contact: ae@capnhq.gov
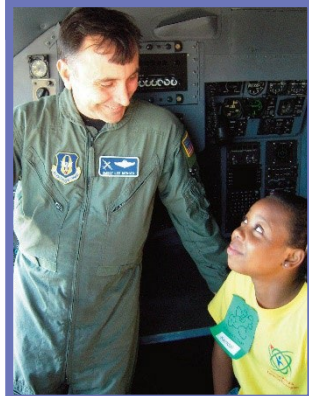
- Scan to see all free STEM programs >>>

Fly

...on a **FREE Teacher Orientation Program (TOP) flight** in Civil Air Patrol aircraft at your local airport. Live stream, video, and/or photograph to bring your flying adventure back to your classroom!

Join

...**TODAY as an AEM!** CAP offers this special membership for K-12 formal and informal U.S. citizen educators in classrooms, home schools, museums, libraries, or other youth organizations. A one-time $35 membership fee brings FREE educator products and programs. Read more at GoCivilAirPatrol.com/ae.

JOIN ONLINE >>>>>
GoCivilAirPatrol.com/joinaem

***Some kits may change due to vendor availability

CIVIL AIR PATROL
AEROSPACE EDUCATION

STEM KITS

STEM Kits are available to Civil Air Patrol aerospace education members free of charge for classroom use.

Bee-Bot/Code & Go Mouse Ages 4+
Uses arrow keys on a floor robot and gridded mat to introduce programming to early learners.

Let's Go Code Ages 4+
Introduces young children to early coding and programming without electronics.

Astronomy Ages 6+
Brings the opportunity to begin an interest in space and observational astronomy.

Build & Learn Geometry Ages 7+
Helps in identifying shapes, solving area and perimeter equations, and finding the volume of geometric figures.

Weather Station Ages 8+
Teaches cadets and students to measure rainfall, barometric pressure, wind speed, and more.

AngLegs Ages 8+
Teaches cadets and students how to classify shapes and angles.

Mechanics Ages 8+
Explores transmission of reciprocal to linear motion using cams and cranks.

Bridge Building Ages 9+
Teaches cadets and students to build and test their very own bridges while learning the properties of physics and its place in structural engineering.

Sphero Bolt/Shero Code Mat Ages 8+
Teaches cyber knowledge through exploration of block coding and advanced programming using a free app and a personal smart device.

Hydraulic Engineering Ages 9+
Introduces students to levers/linkages and hydraulic fluid power.

Rocketry Ages 10+
Teaches cadets and students about the use of rocket propulsion—the pathway to space.
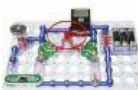
Snaptricity Ages 10+
Teaches cadets and students to explore how electricity and magnetism are used in daily items.

Indoor Quadcopter Ages 10+ Allows cadets and students to explore the thrill of potential careers in remotely piloted aircraft.
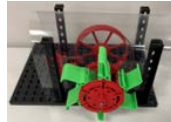
Renewable Energy Ages 10+
Provides a hands-on approach to the understanding of solar, hydro, and wind energy.

Robotics Workshop Ages 10+
Allows exploration of careers in robotics, such as manufacturing, unmanned space exploration, prosthetic engineering, and other medical applications.

30 Days Lost in Space Ages 12+ Integrates the basics of programming and wiring using Arduino IDE & kit components.

Raspberry Pi Ages 12+
Teaches cadets and students basic computer science , such as programming and coding.

Cross Country Navigation Ages 12+
Prepares cadets and other youth for flight planning before any orientation flight and/or further flight experience.

Flight Simulator Ages 12+
Offers a hands-on approach to aviation, especially for Civil Air Patrol cadets, ages 12 and above, who are given opportunities for orientation flights and flight training in CAP, specifically through the CAP Youth Aviation Initiative.

Outdoor Quadcopter Ages 12+
Allows cadets and students to explore the thrill of potential careers in the use of remotely piloted aircraft or unmanned aerial systems.

Remote-Controlled (RC) Aircraft Ages 12+
Promotes a beginning interest in aviation and/or remotely piloted aircraft vocations and avocations.

For more information, contact:
Aerospace/STEM Education
stem@capnhq.gov

<<<<<< Scan to find out more
www.GoCivilAirPatrol.com/AE