STEM Resources and Opportunities through CAP Aerospace

Capt. Julie Sicks-Panus, Civil Air Patrol
Thursday March 28, 2020
Introductions:

K-8 STEM Teacher
   Plymouth, NH

Civil Air Patrol
   New Hampshire Wing:
      Assistant Aerospace Education Director
      Hawk Composite Squadron, Laconia, NH
      Aerospace Education Officer
   2018 NH CAP AEO Of the Year
Brief History

Founded 12/1/41

First national commander was

John F. Curry

Main mission in WWII was to patrol the shores of the east coast for U-boats.

Found 173 U-Boats, attacked 57, and sunk 2.

Became part of the Total Force of the USAF September 2015.

Three Primary Missions:

● Emergency Services
● Aerospace Education
● Cadet Programs
Cadet Programs

Adults work as part of a squadron, supporting all types of Cadet Activities. Requires full CAP membership.
Cadet Programs

- Emergency Services
- Aerospace
- Character Development
- Physical Fitness
What is an Aerospace Educator Member?

Open to all Educators - formal and informal - interested in promoting aerospace and STEM in classrooms, museums, libraries, homeschool and other youth organizations.

One-time $35 membership fee. All renewals are free.

Website: https://www.gocivilairpatrol.com/programs/aerospace-education/join-as-an-aem
How can YOU and/or YOUR school, home school, youth organization, museum, library, or any other STEM-based organization become involved?

How can you benefit from the amazing STEM products and programs & inspire youth to SOAR?

Become a CAP Aerospace Education Member!
Aerospace/STEM Education

~ Aerospace Education Membership (AEM) ~

★ $35 one-time membership fee; free annual renewal

★ Not a member of a CAP squadron; no uniform to wear; no meetings to attend; just inspire youth with STEM Ed

★ K-12 formal/informal educators eligible *(schools, libraries, museums, youth organizations, etc.)*

★ Enjoy all of the FREE AEM benefits (to follow)

★ Why? Help inspire youth toward STEM careers
Aerospace/STEM Education

~ Teacher Orientation Program (TOP) Flights ~

★ Fly in a CAP Cessna airplane
★ Pre-flight briefing
★ Fly over local geographical area
★ Handle the controls
★ Bring experience back to students
Aerospace/STEM Education

~ Free Curricula Products

★ Over 40 products
★ Aligned w/ Nat’l Academic Standards
★ Pre K- grade 12
★ Upcoming for 2019
  - Tuskegee Airmen
  - Women in Aviation (Volume II)
Aerospace/STEM Education

~ K-12 STEM Kit Program ~

Cost? A $35 AE Membership Fee

15 FREE kits from which to select one-at-a-time to use; evaluate; and keep!

87% Increased STEM Career Interest
Free STEM Kit Program

A sampling of the many K-12 kits offered in three Core STEM Areas

- AVIATION
- SPACE
- CYBER

Indoor & Outdoor Quadcopters

Robotics

BeeBot/Code & Go Mouse
Sphero Mini/Sphero SPRK+
Kano Computer

Flight Simulator

Rocketry
Aerospace/STEM Education

~ Free K-6th Grade ACE Program

Aerospace Connections in Education

★ Use of aerospace theme to promote:
  ~ academics (STEM-centric)
  ~ character development
  ~ physical fitness

★ 21 lessons per grade level based curriculum guide

★ Grade-level class set of educational manipulatives
## Aerospace/STEM Education

### Aerospace Connections in Education: K-6 STEM

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Registration: August 1 - December 31

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*ACE Program* **Kindergarten**

*ACE Program* **Grade 6**

Preparring for Lift-off**
Aerospace/STEM Education

~ Benefits of CAP Aerospace & Cadet Program

Inspiring the Next Generation

- Offers positive STEM role models
- Encourages respect for self and others
- Reinforces academic relevance and purpose
- Promotes a physically fit and drug-free lifestyle
- Empowers youth with the desire to seek STEM careers
- Provides career development options & opportunities
- Helps develop technologically-prepared STEM workforce
CAP AEX

- Active member
- Register for AEX
- Teach 6 AE or STEM related activities
- One 2-hour AE or STEM activity/event.
- Fill out simple report at end
- Receive certificates for all students participating!

Award Opportunities

CAP AEM of the Year Awards
https://www.gocivilairpatrol.com/programs/aerospace-education/for-educators/available-awards

AFA Aerospace Educator of the Year Awards
https://www.afa.org/education/teacher-of-the-year

CAP AEO of the Year Awards
Nominations submitted by Squadron Commander to Wing level.
Civil Air Patrol
Aerospace Education

Where Imagination Takes Flight

Contact ae@capnhq.gov for more information
How Soon can I get a STEM Kit?

Your Membership is Processed

You create an eServices account and log in

Fill out the STEM Kit application

CAP HQ meets once a month to process STEM Kit Requests

Kits are then mailed out

When your activity is finished, you submit the report - please include pictures!

Now you can apply for a new STEM Kit!
Julie Sicks-Panus

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