

EAA® AeroEducate for Your Chapter





"Aviation seeds must be transplanted to future generations if we are to see our rich heritage passed on for others to see, to feel, to fly."

- Paul H. Poberezny

AeroEducate is an EAA program designed to assist EAA chapters, parents, and educators with age-appropriate aviation educational learning content.

AeroEducate is free for all users, youth and adults alike. Educators, teachers, and EAA chapters can freely use AeroEducate content to educate youths in their communities.

Participating youth can receive AeroEducate credit by completing self-paced online activities, group activities, hands-on projects, museum visits, and by participating in aviation organizations and EAA chapter programs.

AeroEducate can be used to supplement your existing chapter youth programs. It's easy and it's fun!

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The Why

AeroEducate Mission

Broaden all youths' access to the world of aviation by providing aeronautical experiences that inspire, engage, and instill The Spirit of Aviation® while opening doors to long-term careers and a community of aviation enthusiasts.

AeroEducate Vision

A vibrant and growing aviation community, advanced by inspired youth.

Why EAA Developed AeroEducate

In 2018, EAA saw a growing need to provide youth with a fun way to learn and foster a passion for aviation. EAA also saw an industry demand for the next generation of pilots, engineers, and mechanics. With that small idea in mind, EAA started developing what is now known as AeroEducate. It has evolved to become an online tool that will cultivate the next leaders in aviation by supporting youth and their goals.

Inspire a Passion for Aviation With AeroEducate

AeroEducate is a FREE, online, self-paced learning and activity program that your chapter can utilize to engage youth ages 5 to 18. AeroEducate will help answer the question, "How can we bring kids out to the airport to learn and to have fun while learning about aviation?"

Using downloadable science, technology, engineering, and math (STEM) aviation-themed activities, your chapter can engage students before or after a Young Eagles flight. The AeroEducate activity materials will walk you through each project with simple-to-follow instructions that can help you inspire a child's passion for aviation!

EAA AeroEducate for Your Chapter

AeroEducate is a free EAA resource filled with age-appropriate student activities that EAA chapters can utilize to host youth events at their local airport.

Chapters have the flexibility and options to pull from AeroEducate provided content, use existing EAA chapter youth program content, or design their own youth programs to educate kids in grades K-12, enabling them to discover and ignite their curiosity in aviation while earning AeroEducate credit.



AeroEducate is based on a curated series of rigorously vetted science, technology, engineering, and math (STEM) activities and an innovative digital badging system.

Students who participate in AeroEducate will explore and develop their interests in a wide variety of STEM-related subjects, using the excitement of aviation, not only as the framework but also as a source of inspiration.

AeroEducate provides teachers, parents, EAA chapters, and other youth leaders a toolbox to help inspire future generations of aviators, engineers, mechanics, astronauts, and more by igniting their passion for aviation.



AeroEducate is an aviation resource for youth in grades K-12, with activities personalized for age-appropriate learning levels.



Grow Your **Talons**Grades: K-2



Soar Like **Aviore**Grades: 3-5



Discover Your **AeroPioneer** Path **Grades:** 6-8



Launch into AeroExpedition



AeroEducate Honor Badge
Capstone Project

5 Steps to AeroEducate in Your Chapter

Help unleash a young person's aviation potential by participating in EAA AeroEducate.

- Create a FREE AeroEducate chapter account.
 When you are logged in to your account, you have access to the AeroEducate library of STEM activities to choose from.
- Host an EAA chapter youth program/activity.Host a Young Eagles rally, Workshops program, Build and Fly program,

OR

Utilize an AeroEducate STEM activity to host an ageappropriate youth learning event.

- 3. Inform participating youth about AeroEducate, and show them how to launch and access their own AeroEducate student account to explore MORE aviation activities. When youth are logged in to their AeroEducate student account, they have access to MORE activities they can complete to achieve AeroEducate badging. Students can explore digital activities, hands-on projects, and in-person experiences.
- 4. Help kids achieve AeroEducate badging.

As youth complete AeroEducate activities, points toward achievement badges can be earned as they progress through the grade levels. AeroEducate badges can be a great way for youth in your chapter to stay engaged in aviation and also allow them to feel a sense of accomplishment for their work.

5. Assist kids to navigate through aviation scholarship and career resources.

AeroEducate also provides resources to help youth navigate the aviation industry, so any child's dream can be within their reach. With AeroEducate, your chapter will be able to provide youth access to scholarships and clear pathways they can follow towards a career in aviation, while accessing resources from EAA's expert industry partners.



Students Fly High With AeroEducate

- Join AeroEducate.
- It's free.
- It's easy.
- Earn AeroEducate program badging while progressing through grade band activities.
- Participate in EAA chapter youth activities and earn AeroEducate badging credit.
- Explore interest in aviation at home using online, self-paced AeroEducate activities.
- Investigate career options.
- Connect with AeroEducate program business partners for potential career placement.



ALL EAA aviation youth programs can funnel into AeroEducate.

At Home: Youth can join from home at AeroEducate.org/Enroll. AeroEducate is available to all.

Chapter Youth Event: Youth can join by participating in various EAA programs.

- Young Eagles flight
- Workshops program (turnkey day camp for kids)
- Build and Fly program (turnkey RC model building and flying)

When a youth registers for a chapter youth program using YEday.org online registration, students are opted in to the creation of an AeroEducate student account. Upon YE program verification, the student's account will be created and badging credit for the activity is automatically granted.

If a youth registers at the event, instead of preregistering online, a youth can launch their AeroEducate student account via the EAA student membership online registration form or at AeroEducate.org/Enroll.

Chapter Youth Learning Activity: Chapters can utilize an AeroEducate STEM activity to host an age-appropriate aviation learning program. After the activity, chapters provide youth with the activity's QR code, which is included in the activity contents. By scanning the QR code, the student will be prompted to create their new account and will be given automatic credit for the STEM activity towards badging.

At School: Teachers may use AeroEducate content in schools for free. After running a STEM activity in the classroom, the teacher provides each student with the activity's QR code, which is included in the activity contents. By scanning the QR code, the student will be prompted to create their new account and will be given automatic credit for the STEM activity towards badging.



Overview of All AeroEducate Resources

AeroEducate has resources for chapters, teachers, parents, and students.

Chapter, Teacher, and Youth Leader Resources

AeroEducate STEM activities can be done at home, at school, or at a chapter youth event.

These activities are designed to be age-appropriate, hands-on, and engaging, and use easily accessible materials.

Kids can earn badging credit for completing these STEM activities when they scan the QR code for that activity.

Student Self-Exploratory Resources and Activities Web-Based Activities

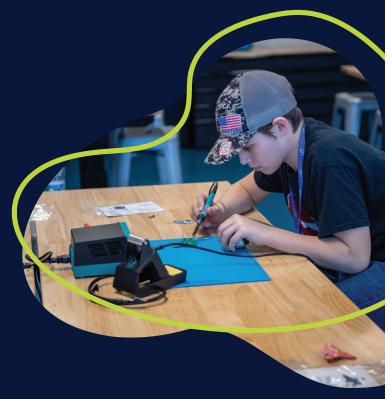
Chapters can utilize an AeroEducate STEM activity to host an age-appropriate aviation learning program. After the activity, chapters provide youth with the activity's QR code, which is included in the activity contents. By scanning the QR code, the student will be prompted to create their new account and will be given automatic credit for the STEM activity towards badging.

Engaging Projects

Assembling a model airplane and making awesome paper airplanes are among the many projects kids are challenged to complete.

In-Person Experiences

To support EAA's vision of a vibrant and growing aviation community, AeroEducate includes events and activities that invite kids to engage with other aviation enthusiasts, like attending an air show, attending an aviation museum, joining an aviation club, and participating in a chapter youth event.



Each AeroEducate STEM class activity comes with:

- Step-by-step directions
- Posters related to the activity
- QR code for youth to scan for badging credit

AeroEducate activities housed in the student and parent accounts are designed to help youth develop skills and knowledge for a variety of aviation careers:

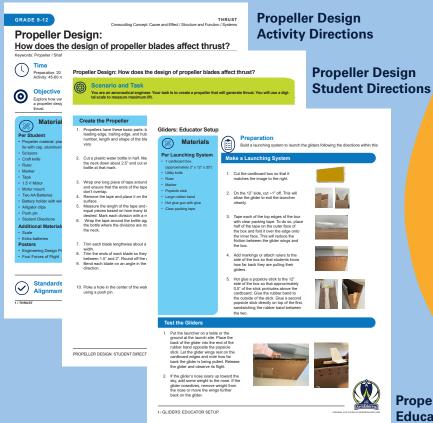
- Pilot
- Aerospace engineer
- Maintenance technician
- Air traffic control
- Aviation business
- More to come soon!

More About AeroEducate Hands-On Aviation STEM Class/Group Activities

Each AeroEducate activity has step-by-step documents for the instructor and students to follow.

- EAA chapters may act as instructors for the AeroEducate program.
- Chapters can simply offer youth programs and use the AeroEducate materials for FREE.

Propeller Design Activity Example



STEM Activity List

Grades K-2

- Corn Syrup Races
- Drag Races
- Paper Bag Lift
- Paper Bag Kites
- Whirligigs
- Air Traffic

Grades 3-5

- Tumblewing Gliders
- Two-Loop X-Planes
- Blended Wing Body
- Nose Cone Drag
- Bubbling Rocket Launch
- Land Sailing

Grades 6-8

- Magnus Cups
- Straw Plane
- Hot Air Balloons
- Hovercraft
- Quiet the Skies
- Balloon Plane

Grades 9-12

- Composite Wings
- Lighter Than Air
- Propeller Design
- Gliders
- Airfoil Design
- Flight Stability

Propeller Design Educator Set-Up

Activities include detailed instruction:

- Expected time required for preparation
- Activity objective
- Student prerequisite skills and knowledge
- Activity preparation
- Scenario and task
- Engagement
- Instructor questions
- Activity results and explanations
- Additional outreach

All About AeroEducate Badging

Digital badging awards youth for completing aviation activities in the AeroEducate program. As kids complete activities and gain knowledge in aviation, they will receive a specific elemental badge. There are four different elemental badges: Flight, Careers, Community Involvement, and Aviation Science and Technology.

Once a youth earns all four elemental badges, they receive the overall badge for their age group.

By earning all four elemental badges, a student receives the overall grade-level badge.

Example:



K-12 Badges



The Capstone Badge

Upon earning the AeroExpedition badge, students are given access to the Capstone badge project, which is designed to help students plan for their future career in aviation.

In this project, students will:

- Create a career plan to chart their course for after high school, which will be reviewed by an industry mentor.
- Apply to aviation career training/education programs.
- Apply for aviation training scholarships.
- Develop an aviation-based resume.

The Ultimate AeroEducate Badge

Once students have worked their way up through the AeroEducate program, they can earn the ultimate badge. The ultimate AeroEducate badge is designed to provide a solid foundation of aviation knowledge and skills through the completion of the AeroExpedition badge, as well as a jump-start in planning a future aviation career through the Capstone badge project.



There Are a Variety of Ways Youth Can Earn AeroEducate Badging Credit

EAA Chapter Youth Event

When registering for an EAA chapter youth event using YEday. org online registration, students are opted in to the creation of an AeroEducate student account. Upon event verification, the student's account will be created and badging credit for the program is automatically granted.

Hands-On Group STEM Activities

Each hands-on STEM activity comes with a QR code. Upon completion of the activity, chapters provide participating youth with the QR code to scan for AeroEducate badging credit.

Self-Exploratory Activities on the Student Dashboard

Youth receive badging credit for completing activities on their student dashboard by following the directions outlined in the activity.

AeroEducate provides a variety of learning experiences on the student dashboard:

- Online activities
- Engaging projects
- In-person experiences



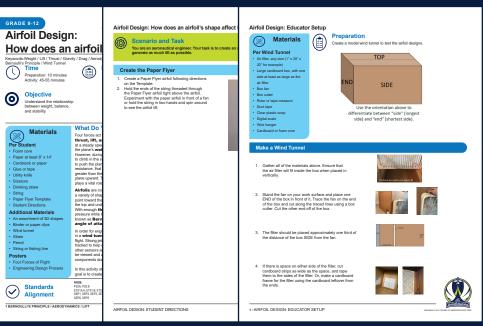












AeroEducate — Career Exploration

AeroEducate includes opportunities to learn about careers in aviation. Get to know the careers section in AeroEducate to help mentor youth attending your EAA chapter events.

Discover a Career in Aviation: Explore an aviation career and uncover the pathway to an aviation dream job. We'll lay out a clear, step-by-step process to help a student choose and prepare for the job they want. In many cases, there are multiple paths they can take — we'll do our best to show all of them. We'll set up a student for success by showing the avenues for education and training, providing scholarship information, and connecting students with industry leaders.

Aviation Career Pathways Currently Included in AeroEducate:

Pilot: The possibilities are endless. Pilots operate the controls of an aircraft – which can be anything from a hang glider or balloon, to a commercial airliner or fighter jet, and everything in between. Even spacecraft need pilots!

Engineer: Engineers use science and math to imagine, design, test, and build all of the things we use every day, including the airplanes you take to go on vacation or rovers that land on Mars. There are many different engineering specialties within the aviation industry that youth can explore in AeroEducate.

Aviation Business Management: There is so much more to the world of aviation than flying an airplane. Aviation businesses need thousands of people in addition to pilots to turn flying from simply a passion into a dynamic driver of our economy.

Aviation Maintenance: Aviation maintenance technicians (AMTs) specialize in the repair and support of many different aircraft systems so that they take off, fly, operate, and land safely. Some of these specializations could include working on the powerplant (engine), the airframe (aircraft body), or avionics (electronic systems).

Air Traffic Control: Air traffic control (ATC) specialists coordinate the safe, orderly, and expeditious movement of more than 140 million operations and nearly 1 billion aviation passengers within the U.S. National Airspace System each year. Controllers work in high-energy environments and ensure the safety of pilots, crew, and passengers, both in the air and on the ground.

The Sky's the Limit

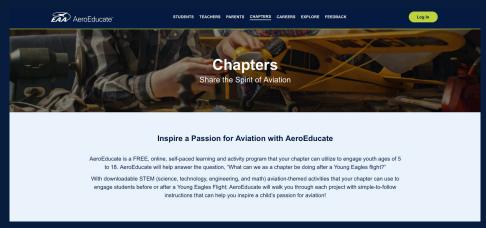
Being a pilot is only one of many careers in the aviation industry. Whether in the cockpit flying airplanes or on the ground designing, building, or maintaining and ensuring the safety of aircraft and the pilots who fly them, the vast world of aviation has the perfect job to match a child's passion and curiosity.

AeroEducate's Principal Partners:

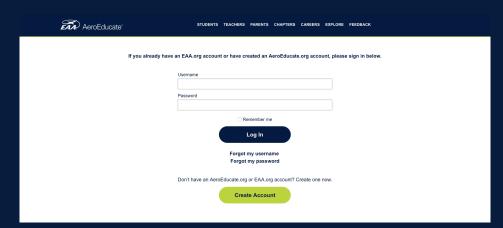


How to Access AeroEducate Materials for Chapters

Go to **AeroEducate.org** to access all AeroEducate related information and activities.



Click on "Log In."



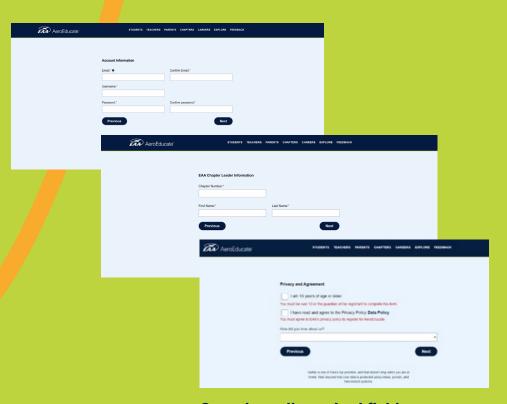
Select "Create Account" to begin.



Select "Create a new account."



Select "I am an EAA Chapter Leader."



Complete all required fields.

Providing your chapter number will help EAA understand which chapters are participating in the program.

Before you finalize your registration form, you will have the opportunity to review your information before submitting your final application.

EAA Chapter Event Insurance Requirement

The EAA Chapter Insurance Plan provides the chapter, its officers, directors, members, and volunteers with aviation operations liability insurance coverage for alleged negligence on the part of a chapter during an approved chapter event, including approved AeroEducate youth events. The chapter is responsible for requesting EAA chapter event insurance using the easy-to-use insurance request form available at EAA.org/ChapterInsurance.

EAA Youth Protection Program

EAA's Youth Protection Policy and Program sets basic requirements for EAA volunteers who work with children under age 18. It includes online best-practices training and, for certain categories of volunteers, a basic background check (U.S. and Canadian residents only). Chapter members who are directly involved in programs with kids are required to complete EAA's youth protection online training and background check. Organizations who participate in a youth protection program demonstrate a high level of responsibility regarding youth programs. For more information about the EAA Youth Protection program, and to learn how many chapter members need to participate, visit EAA.org/YouthProtection.

Volunteer Recognition

Recognizing volunteers is an important component to a successful program, and EAA encourages chapters to make an effort to thank their volunteers.

Young Eagles Day Online Event Registration System for Your AeroEducate Events

The EAA Young Eagles online registration system is designed to help local EAA chapters plan, manage, and execute their youth events more efficiently. The easy-to-use tool allows chapters to organize AeroEducate events and offer online preregistration for volunteers and kids. The tool can help create and post events online and enable parents to sign up their kids prior to the event. The system has the ability to send chapter AeroEducate event data to Oshkosh after the event is complete for final EAA documentation. To learn more about the registration tool and to view tutorial videos on how to use it, visit YoungEaglesDay.org.

FAQ — Chapters and AeroEducate

Q: What is AeroEducate for chapters?

A: AeroEducate is an EAA program designed to assist EAA chapters, parents, and educators with age-appropriate aviation educational learning content. AeroEducate is free for all users, kids and adults alike. Educators and EAA chapters can freely use AeroEducate content to educate youth in their communities. Participating youth can receive AeroEducate credit upon completion of activities, including museum visits, self-paced at-home learning, and by participating in school **and at EAA chapter programs.**

Q: How can chapters use AeroEducate?

A: AeroEducate is a free EAA resource filled with age-appropriate student activities that EAA chapters can utilize to host youth events at their local airport. Chapters have the flexibility and options to pull from AeroEducate provided content, use existing EAA chapter youth program content such as EAA's Young Eagles Workshops program, or design their own youth programs to educate kids in grades K-12, enabling them to discover and ignite their curiosity in aviation while earning AeroEducate credit.

Q: Does a chapter need to complete an EAA insurance request to participate in EAA chapter youth programs?

A: Yes, file for your EAA event insurance prior to participating in any EAA chapter program or activity. The Young Eagles Build and Fly program and the Young Eagles Workshops program are EAA-approved activities. Use these template youth programs at your chapter, and supplement the learning material using EAA AeroEducate content. Only one insurance request is needed, assuming the form is completed to include all activity dates. For more information, visit EAA.org/EventInsurance.

Q: Where can we find youths to participate in an AeroEducate program?

A: A chapter's Young Eagles rally is a great way to attract kids to engage them in the AeroEducate youth program. Take this opportunity to invite parents to register their kids in future chapter youth programs. Continued involvement in and exposure to aviation activities will help foster a lifelong involvement in aviation. Youth will have the opportunity to join AeroEducate after a Young Eagles flight through the Young Eagles logbook provided post-flight.

Q: How can youth achieve AeroEducate badges?

A: As youth complete AeroEducate activities, points toward digital achievement badges can be earned as they progress through the learning materials. AeroEducate badges can be a great way for youth in your chapter to stay engaged in aviation and also help feel a sense of accomplishment for their work.

Q: May chapters use EAA-provided youth programs and offer AeroEducate credit to youth?

A: Yes, chapters are encouraged to offer the popular EAA Young Eagles Workshops (day camps) program and the EAA Build and Fly (RC model building and flying) program and provide the opportunity for kids to earn AeroEducate credit.

Q: May chapters offer AeroEducate materials to their local schools and volunteer to assist in school programming?

A: Yes, EAA chapters are encouraged to offer AeroEducate materials to local schools. AeroEducate activities are designed to specifically integrate into existing school curriculums. With peer-reviewed content built in conjunction with North Carolina State University and vetted through standards-compliant curriculums, you can find STEM teaching resources for a variety of aviation partners who know what students need to learn to work toward a career in aviation, engineering, mechanics, business, and more.

Q: Can a chapter track youth AeroEducate activity?

A: Chapters currently do not have the opportunity to track kids' AeroEducate activity when completed away from the chapter due to privacy laws for individuals. It is a goal to make this feature available soon for chapter leaders and teachers. Stay tuned for updates!

Q: Does AeroEducate provide separate and distinct learning activities for various age youth?

A: AeroEducate offers various courses by school grade levels and the different types of badges associated with each age level. Chapters may select age-appropriate materials to offer in their youth programs.

K-2 Talon | 3-5 Aviore | 6-8 AeroPioneer | 9-12 AeroExpedition

Q: May chapters charge a fee to engage students in chapter youth events when applicable for AeroEducate credit?

A: Chapters may incorporate a "day camp" style format to their youth programs offered to kids. Day camps can be a great fundraising opportunity for chapters, so chapters can charge a participation fee. Always use the EAA Chapter Event Insurance Request Form when planning the event, and participate in EAA's Youth Protection Program during the event.

Learn more at: EAA.org/ChapterInsurance and EAA.org/YouthProtection.

EAA AeroEducate and Chapter Contact Information

Please do not hesitate to contact EAA AeroEducate or EAA Chapters with questions.

EAA AeroEducate email address: AeroEducate@eaa.org

EAA Chapters email address: Chapters@eaa.org

