



# Aerospace Education

Summer 2011

# News

Inspiring Students To Excel

- National Aviation Day - August 19, 2011
- CAP Annual Conference & National Board - Louisville, KY, August 17-20
- Visit CAP AE online at [www.capmembers.com/ae](http://www.capmembers.com/ae) for product and program resources.

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*Aerospace Education News*  
*Aerospace Education News* is the official aerospace education quarterly publication of the Civil Air Patrol at CAP National Headquarters, Maxwell Air Force Base, Ala.

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If you have news, events, or ideas we might consider for the newsletter, please submit them electronically to [jstone@capnhq.gov](mailto:jstone@capnhq.gov).

## Youthful Aviators...The Key to the Future of Aviation

Who are the future aviators who will take us forward in transportation and imagination? Those young people who make aviation exciting today will be the inspiration of tomorrow. Youth from CAP or other aviation organizations are ready and willing to lead us into the future.

CAP cadets who are taking to the skies are one example of aviation hopefuls. Cadets, like Chief Master Sgt. Katherine Moore (who earned her wings at the age of 16), C/2Lt Jacob McGowin (who, along with his father and brother joined AL WG CAP, soloed at age 16), and C/2Lt Jeffrey Wood (who soloed in January 2011) are motivated young people who have the "flying bug." A motivated cadet has the opportunity to fly in a CAP Cessna airplane and go as far as his or her hard work will take them.

Other young people who are taking off in aviation are Kimberly Anyadike and Tyrell Rhodes. Kimberly, at age 15, set a new record by becoming the youngest African-American female to fly a single engine plane across the continental United States. She flew from Compton, California to Newport News,

Virginia. She completed the 13-day, 2,342 mile trip in a Cessna C172, accompanied by safety pilot Ronnell Norman, a certified commercial pilot, and Major Levi H. Thornhill, a retired U.S. Air Force pilot who, at age 87, is a member of the elite Tuskegee Airmen who served during World War II.

Tyrell Rhodes was born with cerebral palsy but, at age 16, he continues to strive toward his dream of obtaining a pilot's license. Through many operations and other obstacles, he has persevered and continues to amaze those around him as he continues to find innovative ways to fly.

These are only a few of the fascinating and growing number of young people who are soaring into the world of aviation. As they continue their education, they will be the mentors to the next generation of pilots and aviation professionals. Some of these young people were influenced by a family member that had a connection with aviation while others simply got inspired by an aviation experience.

In CAP, the hope is that each and every life touched by the Cadet Program, or by a teacher who flew with CAP as part of Teacher Orientation Program (TOP) Flights, will get that "flying bug" and go on to a career in aviation.

**(See links on page 5 about these awesome young people.)**



C/2Lt Jeffrey Wood and family



Kimberly Anyadike and Tuskegee Airman, Maj Levi Thornhill

**Questions:**

1. Can cadets fly in CAP airplanes?
2. What was Kimberly Anyadike's record for accomplishing?
3. What was the major obstacle that Tyrell Rhodes had to overcome to fly?

**(Answers on page 5)**



## K-6 Aerospace Connections in Education (ACE) Program...and Beyond!

From making alphabet Frisbees and Bernoulli tongues to launching Fun Shuttles, approximately 400 elementary educators participating in the 2010-2011 ACE Program brought engaging hands-on and minds-on science, technology, engineering, and math (STEM) experiences to about 11,000 elementary students representing over 80 schools in almost 30 states. Additionally, the ACE teachers helped emphasize good character and physical fitness through ACE program lessons. Amid the flurry of impact, energy, and excitement, CAP announced the national 2010-2011 National ACE award recipients in May.

### National ACE Student of the Year



The 2010-2011 National ACE Student of the Year is **Kenny Kaufman**, a kindergarten student at Anthem School in Anthem, Arizona. His teacher, Ms. Melissa Schmitt explained, "Kenny displays the character traits of citizenship in the ways he speaks and interacts with his teachers and peers. Respect is always present in his interactions with others, and responsibility is evident in his dedication to his work." Regarding a future career, Kenny is already reaching for the stars. Ms. Schmitt stated, "Kenny is definitely an astronaut in the making." Not only did Kenny inform his teacher and his classmates of his desire to be an astronaut, he also selected the Space Shuttle in which he wished to fly, if the shuttles continued to be used in the future. Kenny also shared some of his space history knowledge with his class by explaining the Apollo 13 mission. Ms. Schmitt stated, "When the class completed their ACE lessons, Kenny remarked that it made him feel 'like a real scientist.'"

### National ACE Teacher of the Year



CAP is pleased to honor **Ms. Kaci Heins** as the 2010-2011 National ACE Teacher of the Year. Ms. Heins was a fifth-grade teacher this year at Peak School in Flagstaff, AZ. Wishing that the students could experience a CAP Teacher Orientation Program (TOP) Flight as she did, she was determined to provide more experiences to her students to help the ACE curriculum thrive. Her class went on several field trips including the local airport, the Lowell Observatory, the local United States Geological Survey (USGS) astrogeological facility, and the local NOAA weather station. Kaci also engaged her students in a NASA Program called Smart Skies, wherein students apply math skills in real-world air traffic controller situations. Additionally, she invited representatives from the local Arboretum to visit her classroom. They brought an eagle, falcon, and an owl into the classroom, and the students learned about the birds' aerodynamics and how engineers studied falcons to help solve problems as they designed high-tech aircraft that fly at high speeds. The class was enamored by the falcon because it could dive so fast!

During the school year, as the class became immersed in the study of aerospace, they were accepted into two programs. One was called Changes in Altitudes, a grant program sponsored by NASA, Northern Arizona University, Arizona Space Grant Consortium, and Science Foundation Arizona. The students became engineers as they constructed a scientific payload that included a time-lapse digital camera, pressure

sensor, and temperature sensor. The students attached their payload to a weather balloon that climbed to 100,000 feet, and the students analyzed data collected during the flight. As a second program opportunity, the class developed an experiment to test the surface tension of bubbles in gravity and microgravity. The experiment was accepted by NASA to fly aboard their zero gravity plane! Ms. Heins's class from Peak School was one of 14 schools across the country to be part of the prestigious program, Teaching From Space Flight Week, at Johnson Space Center. As part of the project, Ms. Heins conducted the experiment aboard the zero G plane this summer, and her students will have the opportunity to analyze the results.

From inviting professionals into her classroom, both live and via Skype, to taking her students to visit the real world of aerospace, Ms. Heins may never know the true value, impact, or extent of her efforts. Ms. Heins stated, "I feel the implementation of the ACE Program, with extension activities and field trips, took my students to new heights in their overall education," and she hopes many of her fifth-grade students will accept the invitation presented in her classroom by CAP's Lt Col Bendixen to become CAP Cadets next year in order to continue growing in the area of personal and aerospace educational excellence.





## K-6 Aerospace Connections in Education (ACE)

### National ACE School of the Year



Soaring to the top this year with the school-wide implementation of the ACE Program is the 2010-2011 National ACE School of the Year: **Anthem School in Anthem, AZ.** CAP's Col Pete Feltz presented this prestigious award to Anthem School at their aerospace celebration assembly. When an entire elementary school takes off with the ACE Program, the results can be invigorating, bringing a sense of unity, educational excitement, and academic achievement. The *Foothills Focus*, Anthem's weekly newspaper, reported, "In making a presentation to the student body, Principal Pat Yennie said in all his years of working in education he has never seen students as enthusiastic as he has during the past school year."

The excitement began as the teachers participated in CAP's TOP Flights and shared their experience with students. The momentum continued with a two-part lift off of the ACE Program that included a school-wide paper airplane contest, wherein teachers and students became paper airplane engineers, and a visit from a local news helicopter. One educator explained, "Garbed in their ACE t-shirts, the entire student body assembled on the playground to witness the landing of the Bell helicopter and to be part of the morning show broadcast." Numerous times during the school year, Anthem received local and national recognition for the aerospace activities taking place at their school.

With ultimate interest and support from the school administrators, Anthem's K-6 educators provided their

approximately 700 K-6 students with an average of 17 ACE lessons, and eight classroom teachers documented that their students received all 21 ACE lessons! In addition to the ACE curriculum, fifth-grade classes participated in Southwest's Adopt-a-Pilot Program, and third graders participated in a field trip to the Challenger Space Center. Some educators created ACE-themed awards. The kindergarten and third grade teachers selected students to be ACE Stars of the Week who were chosen based on how well they displayed the character traits taught in the ACE program.

As a culminating ACE Program school-wide activity, students watched as hot air balloons were inflated at the school's campus. Principal Yennie issued next year's challenge of designing and testing a hot air balloon that will be part of the upcoming school year's ACE liftoff event. Anthem has certainly

been a high-riser in aerospace education. Even though the ACE Program is designed for grades K-6, Anthem's seventh- and eighth-grade students participated in CAP's Aerospace Education Excellence (AEX) Program and excelled in a 2010 Honeywell Aerospace Challenge. As the school's mascot is a rocket, Anthem School has launched students and teachers to incredible heights, and having already been issued an aerospace challenge for next year, it appears they will continue to gain altitude.

### ACE Accolades

In addition to the annual ACE awards, CAP also provided a special group of awards this year called the ACE Accolade Awards. These honorable mention awards were provided to several teachers who have been repeat outstanding ACE educators.

### Congratulations to the following ACE Accolade award winners:

Christopher Chambers, sixth-grade teacher in Decatur, GA; Mary Collins, multi-grade teacher in Philadelphia, PA; Beppie Walerius, fifth-grade teacher in Van Buren, OH; and Janice Wright, second-grade teacher in Boaz, AL.

### Special Thanks to Sponsors:

**Air Force Association**  
**Lightspeed Aviation**  
**FLIR, Inc.**

*(continued on page 11)*



Anthem faculty and students watch model rocket launch



## From The Deputy Director's Desk.....Dr. Jeff Montgomery



### Aerospace Education Officer (AEO) Schools



National AEO School in Pensacola, FL

CAP recently completed another successful National AEO School in Pensacola, Florida. Fifty-three AEOs from 23 different CAP wings were in

attendance at the school. Squadrons, groups, wings, regions, and NHQ were all represented at the school. This year marked the 10th anniversary of the National AEO School, and all were pleased that this event continues to be a popular and successful school for the AEOs. Some of the highlights included watching the Blue Angels perform, visiting the National Flight Academy, touring the Naval Museum, and observing a live rocket launch. These events all occurred in addition to receiving presentations about duties and responsibilities of an AEO and presentations on all the aerospace program resources

available to AEOs.

The National AEO School was the second AEO School conducted so far this year. The Middle East Region held their successful school in May, and three more regional AEO Schools will occur in July and August. The schedule for the upcoming Regional AEO Schools is:

**RMR – July 29-31 – Peterson Field, CO**

**PCR – July 30-August 2 – March AFRB, CA**

**GLR – August 10-13 – USAF Museum, Dayton, OH**

There is still time to make plans to attend one of these schools. Contact [jmontgomery@capnhq.gov](mailto:jmontgomery@capnhq.gov) and I'll put you in touch with the director of the school.

Jeff

### (ACE - continued from page 3) Program Results

As with any educational program, the administrators and teachers are vital to the ACE Program's success. A quality lesson plan is only worthwhile if a quality teacher brings it to life. On average, approximately 91% of educators who successfully complete the ACE Program intend to participate again. These educators have discovered and contributed to the success, motivation, and inspiration this program offers. The 2010-2011 K-6 ACE Program lessons, which were evaluated by ACE teachers, received an overall score of 4.4 out of a possible 5.0. Almost half of the ACE teachers who completed the ACE Program administered the comprehensive ACE pre- and post- test. The average percentage of increase for each student's post-test score was near 50%.

Another point of success comes from Kenwood Elementary School, the 2009-2010 National ACE School of the Year, in Fort Walton Beach, FL. Florida administers the science portion of their

state's standardized achievement test to students beginning in the fifth grade. Kenwood's fifth-grade students raised their three and above achievement levels (with 5 being the highest) from 44% in 2009 (pre-ACE Program) to 66% in 2011, wherein the fifth-grade students had participated in the ACE Program during their fourth- and fifth-grade years. Kenwood's students performed better than both the district and the state in 2011. Comparing 2009 to 2011 results, Kenwood's fifth-grade students also improved the score from 58% to 76% regarding the ability to correctly answer physical and chemical science questions. Additionally, Kenwood's fifth-grade scores for correct answers to scientific thinking questions rose from 62% in 2009 to 79% in 2011, a 27% increase. CAP is honored that the ACE Program was part of the school's curricula during this impressive time of improvement.

If you are a motivated, enthusiastic elementary K-6 educator who is not yet an ACE educator, but you would like to take your classroom to new heights with

the ACE Program, please learn more about the program by going to [www.capmembers.com/ae](http://www.capmembers.com/ae) and clicking ACE Program. If your elementary school would like to become an ACE school, make plans to register early in September. All those who register by September 26 will receive their ACE materials in October, but electronic copies of the ACE curriculum guides are available now online for your planning purposes through eServices at <https://www.capnhq.gov>. For more information, please contact **Angie St. John** at [astjohn@capnhq.gov](mailto:astjohn@capnhq.gov).



Beth Elwood's 3rd grade ACE class from Wright Elementary in Florida demonstrates Bernoulli's Principle with Bernoulli's Tongue masks.



## Aerospace Education Officer (AEO) Spotlight.....

### Maj Philip Hubacek, AZ WG



Meshing a love of science and engineering with a new-found interest in airplanes and aerospace, Maj Philip Hubacek has discovered the best of both worlds. His interest in aviation and aerospace began when he joined CAP as a cadet in the mid 1960s. CAP's aerospace education program and the association with the U.S. Air Force encouraged Maj Hubacek to study aerospace engineering at Texas A&M University and to enter the AFROTC.

Maj Hubacek earned a B.S. of Aerospace Engineering degree from Texas A&M, a USAF commission, and a pilot training assignment. He served his country as a B-52H crewmember for over six years, followed by a year of civilian business-jet flying.

After beginning a new career as an Avionics Flight Test Engineer with Boeing, Maj Hubacek was still trying to connect his flying experience with his love of engineering. Maj Hubacek later moved to Phoenix, Arizona to work in airplane cockpit computer and controls development with Sperry Avionics and Honeywell International until his retirement in 2005.

Upon retirement, Maj Hubacek began thinking back on his "CAP days" and decided to join CAP once again, but this time as a senior member. His CAP responsibilities and duties led him to become the squadron AEO for Show Low Composite Squadron in Phoenix,

Arizona. Maj Hubacek later became the Group II AEO and subsequently accepted the additional position of AZ Wing Deputy Director of Aerospace Education.

ors. He has earned the AZ Wing AEO of the Year award, the Wing Commander's Commendation, the A. Scott Crossfield Award, the Meritorious Service Award, among other benchmark training, courses, and awards that go along with being a dedicated CAP professional.

Maj Hubacek's commitment and professionalism can be seen in every aspect of his life. CAP is indeed fortunate to have him as a member of the AE team. We know that his dedication and love of aerospace and engineering will benefit students and cadets for

**Maj Phil Hubacek works with both school students from Anthem School (bottom) in Phoenix and AZ Wing cadets (below)**



As an AEO, it has been Maj Hubacek's pleasure to arrange group and wing-wide AE events for the AZ Wing cadets, as well as work with educators in the schools of Arizona. Maj Hubacek has recruited Aerospace Education Members, arranged Teacher Orientation Program (TOP) Flights, addressed school and community organizations, and spread the word of aerospace throughout his community.



Maj Hubacek has excelled in CAP just as he has in his other life endeavors.

years to come. He is the kind of mentor who will inspire the next generation of scientists, engineers, and pilots.

*"As a squadron and wing AEO, my most important goal is to explore/implement ways to educate, expose, and encourage our cadets to pursue technology/science/engineering studies and careers."*

*Maj Phil Hubacek, AZ WG*

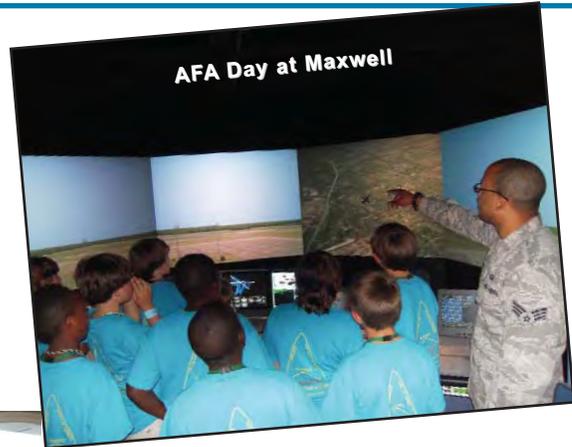


### AE Summer Activities

Summer 2011 is flying high with many TOP Flights and educator workshops and events. Several activities have included Huntsville, AL TOP Flights and workshop in association with Space Academy for Educators in Huntsville, AL sponsored by Honeywell and Boeing; AFA Day on Maxwell AFB, AL; TOP Flights and ACE workshop in Elizabeth City, NC; TOP Flights and administrator workshop for the AL Department of Education in Tuskegee, AL; TOP Flights in Shelby County, AL; Educator workshop in New Mexico; and National AEO School in Pensacola, FL. These are only a sampling of what is going on around the country as CAP members spread the AE message and encourage communities and schools to get involved in aerospace education and CAP.



AFA Day at Maxwell



AFA Day at Maxwell



Tuskegee Teacher Workshop



NC TOP Flights



AEO School in Pensacola



Tuskegee Workshop



NM Teacher Workshop

Web addresses for stories about young aviators featured on the front page :

1. **Katherine Moore** - <http://www.blueridgenow.com/article/20101017/ARTICLES/10171034>
2. **Jacob McGowin** - [http://alabamaaviator.com/index.asp?record\\_no=21656](http://alabamaaviator.com/index.asp?record_no=21656)
3. **Jeffrey Wood** - [http://www.patrick.af.mil/news/story\\_print.asp?id=123236938](http://www.patrick.af.mil/news/story_print.asp?id=123236938)
4. **Kimberly Anyadike** - <http://www.blackcelebkids.com/2009/07/29/upcomingkimberly-anyadike-makes-history/>
5. **Tyrell Rhodes** - <http://dreamwings.org/Home.php>

### Answers to front page story:

1. Yes, cadets can fly in CAP airplanes. Cadets are youth ages 12-18. The Cadet Orientation Flight Program's primary goal is to introduce youth to general aviation through hands-on orientation flights in single engine aircraft and gliders.
2. Kimberly, at age 15, set a new record by becoming the youngest Black female to fly a single engine plane across the continental United States.
3. Tyrell Rhodes was born with cerebral palsy, which did not stop his dream of flying.



## CURRICULUM CORNER....(Grades K-4)

# WHAT DOES A PILOT DO?

**Objective:**

Students will learn about the career of pilot and what the pilot does to ensure passenger safety.

**National Science Standards:**

Content Standard G: History and Nature of Science

- Science as a human endeavor

**Grade Level(s): K-4****Background Information for Teacher:**

Pilots fly airplanes and helicopters to do many jobs. Most pilots fly people and cargo from place to place. Some pilots test new planes, fight fires, do police work, or rescue people who are hurt or in danger.

Before they take off, pilots plan their flight carefully. They also make sure that baggage or cargo has been loaded correctly. They check the weather forecast to see if they will run into any bad weather on their trip. They then decide what route they should take, and how high and fast they should fly.

To keep passengers safe during travel, pilots are responsible for numerous flight checks where they verify that the instruments, controls, engines, and other flight systems on their craft are functioning the way they should, checking off each flight system as they finish inspection. To properly perform this task, pilots must be observant, knowledgeable of their aircraft, and excel at inspection.

**Materials:**

- Several simple airplane models such as Styrofoam, balsa wood, or plastic. (These can usually be found in dollar stores, craft or hobby stores.)
- Flight Check Forms (see forms on next page)
- Clipboards
- Pencils or crayons to check boxes
- Styrofoam meat tray or plate
- Safety scissors if students are cutting out their own airplane or snap knife if teacher is cutting out patterns ahead of time
- Permanent markers to color Styrofoam airplanes
- Cellophane tape

**Procedure:**

1. Ask students what they think a pilot does and record answers on chart or classroom board.
2. Discuss what pilots do and read the background information to students.
3. Set up a mock "flight check" exercise by presenting the students with four completed simple model airplanes. Make sure that each airplane model "mistakenly" has a part attached incorrectly. You may choose to install the body of one airplane model upside down, attach the wings of another model severely off center, bend the tail down on the third model, and the fourth model can be correct and "flight ready."
4. Have students take a clipboard and a simple check sheet for each model.
5. Invite students to inspect each model and decide whether the plane should be approved for flight.
6. Discuss why each airplane did or did not make the "flight ready" status.
7. Have students assemble their own Styrofoam airplane to take home and share with their families.

**To Assemble Styrofoam Airplanes:**

1. Have students trace the pattern on a Styrofoam tray or plate and cut out the pieces or an adult can cut them out ahead of class for the students. REMEMBER: Safety with any sharp

cutting tool when used by children!!!

2. Have students color the pieces and write their name on their plane using permanent markers.
3. Let the marker dry and then slide the wing section into the plane. If necessary, you can secure the wings in place with a little bit of cellophane tape.
4. Allow the students to use the check sheet on their model and then take them home.

**Review:**

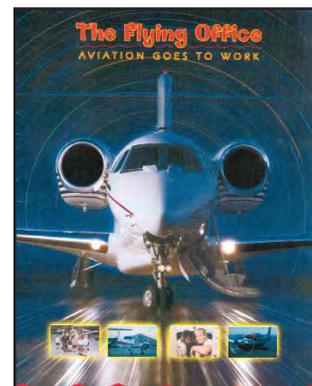
This lesson helps students understand some of the duties of a pilot and the observation skills needed to keep the plane safe for the passengers.

**Evaluation:**

Students can illustrate what a pilot does by drawing a picture and explaining it to the class.

**Resources:**

1. An online book from AV Kids called "The Flying Office: Aviation Goes to Work" discusses business aviation and how it helps people. Included are aviation terms and parts of an airplane. [http://www.avkids.com/speakerscenter/the\\_flying\\_office.pdf](http://www.avkids.com/speakerscenter/the_flying_office.pdf).



2. A complete article on pilots and what they do can be found at <http://www.bls.gov/k12/science03.htm>.

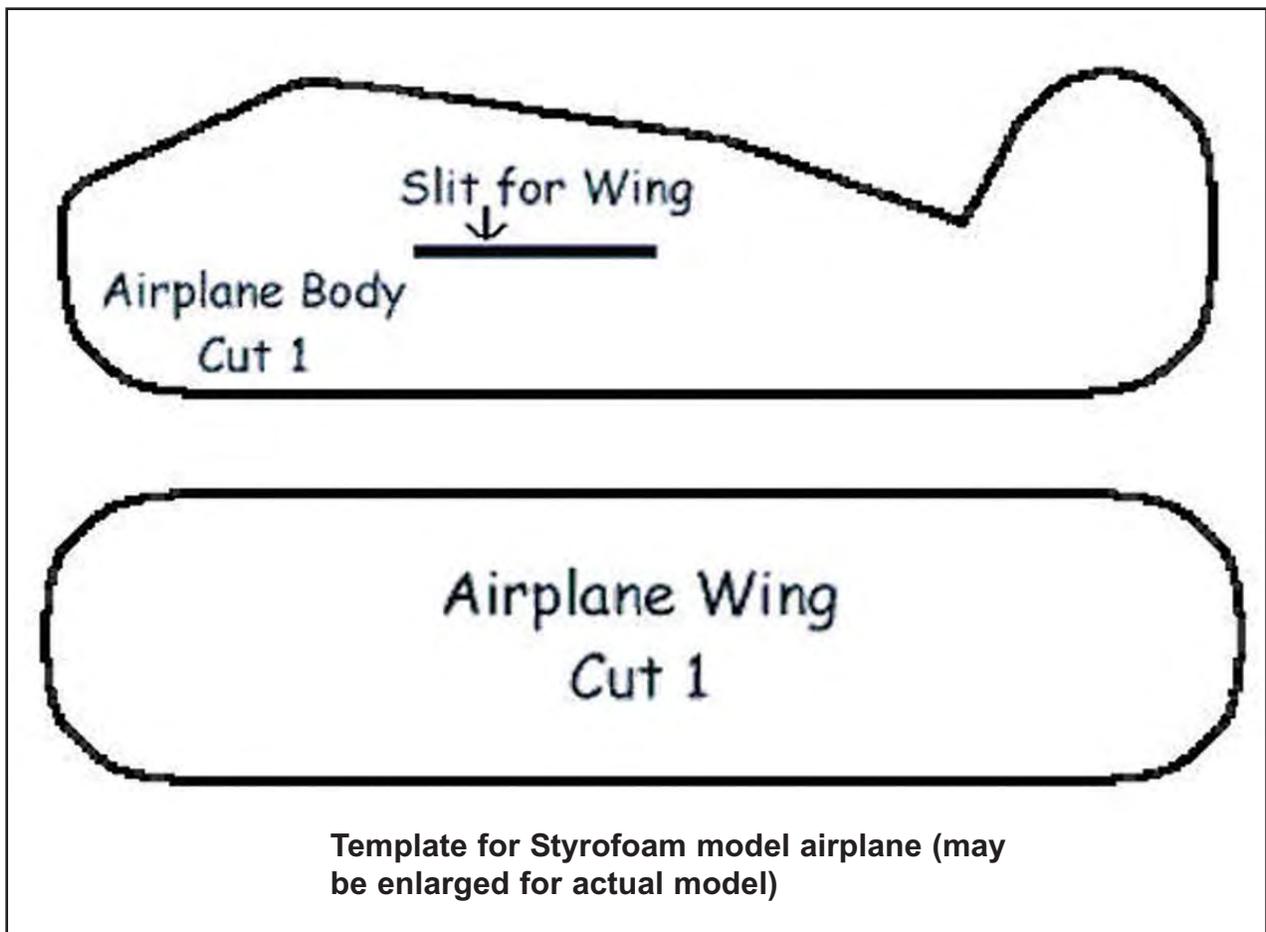


**Flight Check Form (Use one for each of the simple airplane models):**

Flight Check Form  
Model # \_\_\_\_

	Ready	Not Ready
Airplane Body 	<input type="checkbox"/>	<input type="checkbox"/>
Airplane Wings 	<input type="checkbox"/>	<input type="checkbox"/>
Airplane Tail 	<input type="checkbox"/>	<input type="checkbox"/>

Check the box if this flight is approved:





## CURRICULUM CORNER

(Grades 5-12)....

# HOW DO I GET THERE FROM HERE?? CAREERS AND GOALS



**Objective:**  
Students will identify goals associated with attaining an aerospace career.

able tasks that are attainable and you will be more successful.

It's important to remember that goals in life don't always have to be large, intimidating projects. Something as small as remembering to smile at people during the day or helping a family member with a chore can lead to an improved attitude towards life - and that's a wonderful goal!

*Do you have any goals?  
How do you make goals?  
Who makes your goals?  
Do you have any goals for the future?*

**National Science Standards:**

Content Standard G: History and Nature of Science

- Science as a human endeavor

**National Career Development Guidelines: Educational Achievement and Lifelong Learning Domain:**

Goal ED1: Attain educational achievement and performance levels needed to reach your personal and career goals.

**Grade Level: 5-12**

**Background Information:**

Landing a fulfilling career doesn't just happen. It is done by making informed choices about education, activities, and the jobs that you pursue. Reaching your career goal begins long before you start college. Setting goals now is important because things that you do in school will affect your future. If you start thinking about goals that are positive and reasonable to set, you'll be on your way to turning them into reality. Remember not to set goals that are unattainable, otherwise, you might become frustrated and give up.

One of life's most important lessons is that there are no big jobs, only a series of little ones. Any big job can be cut into several small jobs and activities. Dividing big goals into smaller ones - and then achieving them - is a great way to accomplish anything in life. Shape your goals into small, reason-

**Materials:**

- writing materials
- 5" by 7" index cards
- 3" by 5" index cards
- sticky notes
- Internet access

**Procedure:**

1. Read the following true or false statements aloud. Have students record their answers on a piece of paper to determine their personal current goal-setting status.

1. *I have specific goals for myself.*
2. *I regularly plan and schedule my time.*
3. *I follow a schedule every day.*
4. *I finish projects before they are due.*
5. *I seldom waste time.*
6. *I complete all my assignments on time.*
7. *I have good study habits.*
8. *I seldom feel overloaded and behind.*
9. *I help around the house without being asked.*
10. *I have plenty of time for fun and relaxation.*

2. Ask the class the following questions and discuss their answers:

- What are goals?*
- Are goals important?*

3. Distribute the Student Sheet and discuss the background information together.

4. Have students research aviation careers and choose one that they may be interested in pursuing. (A list of aviation-related careers can be found at <http://www.ket.org/trips/aviation/careers.htm>.)

5. Have students research the aviation career they chose and find out how a student goes about getting into that particular field.

6. Discuss the importance of setting goals and the difference between short-term and long-term goals. (Some students may have specific examples of their own experiences with well-planned steps to achieve a goal versus a time when they were overwhelmed at the last minute because of poor planning.)

7. Explain that the students are going to identify short-term and long-term goals toward a career path in aviation. The short-term goal should be one that can be achieved within a week. Have each student write his/her short-term goal on a 3" by 5" index card. (Example: I need to make a B or better on my science test.)





## Curriculum Corner (Grades 5-12) continued...

8. Have students identify steps needed to achieve each short-term goal. Have them post the steps on post-it notes next to each short-term goal. (This helps students identify how planning helps to accomplish goals and breaking large projects into smaller pieces keeps the job from becoming overwhelming.)

9. Next, have each student identify a long-term goal that will be achieved by accomplishing all of their short-term goals and write it on a 5" by 7" index card. (Example: I need to make an A in science for the year.)

10. Keep identifying short-term goals toward the aviation career of choice on the 3" by 5" cards. Identify more long-

term goals on the 5" by 7" index cards.

11. After researching aviation careers and writing short-term and long-term goals for about 30 minutes, ask students to get in groups of 3-4 and share their goal setting plans.

**Review:** This lesson helps students to begin thinking about how setting goals affects their future plans. It also introduces them to many career opportunities in the aviation field. Remind students that they need to choose goals that are reasonable and to take realistic steps to reach them.

**Evaluation:**

Have each student read one of their long-term goals, short-term goals, or steps to reaching a short-term goal. The rest of the class will try to identify which of the three terms the example represents.

**Extension:**

- Students may create a timeline for achieving goals.
- Have students make a list of rewards they might get for achieving short-term and long-term goals. Are the rewards self-generated or do they come from an outside source as a result of accomplishing the goal?

### Careers and Goals Student Sheet

Name: \_\_\_\_\_



**Background Information:**

Landing a fulfilling career doesn't just happen. It is done by making informed choices about education, activities and the jobs that you pursue. Reaching your career goal begins long before you start college. Setting goals now is important because things that you do in school will affect your future. If you start thinking about goals that are positive and reasonable to set, you'll be on your way to turning them into reality. Remember not to set goals that are unattainable, otherwise, you might become frustrated and give up.

One of life's most important lessons is that there are no big jobs, only a series of little ones. Any big job can be cut into several small jobs and activities. Dividing big goals into smaller ones - and then achieving them - is a great way to accomplish anything in life. Shape your goals into small, reasonable tasks that are attainable and you will be more successful.

It's important to remember that goals in life don't always have to be large, intimidating projects. Something as small as remembering to smile at people during the day, or helping a family member with a chore can lead to an improved attitude towards life - and that's a wonderful goal!

1. Research an aviation career that may interest you. To find a list of possible careers, go to <http://www.ket.org/trips/aviation/careers.htm>. Then research the particular career you chose and what is needed to get into that field.
  2. On 3" by 5" index cards, list a short-term goals that you would need to accomplish to be able to achieve each long-term goal.
  3. Make a list of steps on sticky notes that would help you achieve each short-term goal.
  4. On a 5" by 7" index card, write a long-term goal that you need to achieve to be able to work in the aviation field you chose.
  5. How would you go about keeping up with your progress of achieving each step and what would be the reward for completing that step or goal?
6. How does the idea of goal-setting help in other areas of your life, such as character development and growth, health, recreation, family, friends, community, financial, household, or any other aspects of your life? (Use the back of the paper, if necessary.)



## Air Force Association Partnership

CAP wishes to share sincere gratitude to the Air Force Association for the many years of financial support enabling the perpetuation of the AE Mission via CAP's youth development programs for units and teacher members. This quarter, appreciation is extended to the AFA for providing \$250 AE grants to CAP Units selected in a competitive grant application process. The summer quarter winners and their excellent AE projects are as follows:

- **Stevens Point Composite Squadron, Stevens Point, WI** --Air Cushion Vehicle (hovercraft) Construction for Community Outreach Events
- **Butler Composite Squadron, Renfrew, PA** -- Smithsonian Air & Space and Udvar-Hazy Museum Tours
- **Worthington Composite Squadron, Windom, MN**-- CAP & AMA 7' UCAV Predator R/C Aircraft with Mini Cam Building Project
- **Tallahassee Composite Squadron, Tallahassee, FL** -- Four- day Rocketry Camp with FSU College of Engineering
- **Andrews Composite Squadron, Andrews, MD** -- UAV Training with USB Control Unit
- **Lone Star Composite Squadron, Bellville, TX**-- Rocketry Outreach Program
- **Col Berta A. Edge Composite Squadron, Biloxi, MS**-- Naval Aviation Museum Trip
- **Gen Curtis Lemay Offutt Composite Sq, Offutt AFB, NE**--"Project Icarus" Weather Balloon Program
- **Group 6 CAWG, Bakersfield, CA**-- Eight-day Group 6 Aviation Camp
- **New Century Composite Squadron, Merriam, KS**-- Virtual and Real Drone Flying Project
- **Asheville Composite Squadron, Fletcher, NC**-- UAV Initiative: Project Echo Business Plan Development
- **Fort McHenry Composite Squadron, Catonsville, MD**-- Near Space Balloon Project with Automated Packet Reporting System
- **Laramie Valley Composite Squadron, Laramie, WY**--Portable Aviation Simulator for Community Outreach Events

- **Allegheny Composite Squadron, West Mifflin, PA**-- Operational Risk & Crew Resource Mgmt (ORM/CRM) Training Simulator Project
- **Kenosha Composite Squadron, Kenosha, WI**-- Rocksim CAD and Sim Engineering Program
- **Lt Col Arthur King Composite Squadron, Modesto, CA**-- Flight and Rocketry Camp Events
- **Lakeshore Composite Squadron, Grand Haven, Michigan**-- Robotics and Automation Engineering Design Program
- **Oasis Charter Schools Cadet Squadron, Cape Coral, FL**--AE Excellence & ACE Outreach Initiatives
- **Low Country Composite Squadron, Bluffton, SC**-- NASA Barany Chair and Wind Tunnel Demo Development
- **Worcester Cadet Squadron, Worcester, MA**-- Solar Powered Vehicle Exploration

### Recent AFA Grant Recipients:



Kettering Middle School teacher, Melanie Byers implemented a rocketry program wherein students designed, built, and launched their own rockets.



### AFA CyberPatriot Program.....

Now...high school teachers and CAP cadet squadrons should be planning toward the fall and consider organizing a team for the Air Force Association's exciting CyberPatriot program. To find out about this program, go to the CyberPatriot box at [www.capmembers.com](http://www.capmembers.com).



The Wayne Composite Squadron in Lake Ariel, PA conducted an aviation program to introduce Boy Scouts to CAP's cadet program. CAP Lts Bob Thorn and Glenn Carman demonstrate aircraft powerplants to a captive group of young people interested in possible careers in aviation.



Katherine Boyte, of Wright Elementary School in Okaloosa County, FL, was able to coordinate a school aviation event to enhance the CAP's K-6 ACE Program. Especially notable is the involvement of grandparent volunteer, John McPhail, the district's Volunteer of the Year, who became enthusiastically entrenched in the ACE program implementation.

In closing, CAP extends deep appreciation to the AFA for dedicated support to the youth of America!

To find out more about all the AFA/CAP partnership programs, go to the AFA Partnership link at [www.capmembers.com/ae](http://www.capmembers.com/ae). If you are NOT a member of AFA, find out how YOU can join a community-based/community outreach AFA chapter!





## REGION TO REGION

For information on other pertinent dates for CAP Members and Educators, go to our calendar at [www.capmembers.com/ae](http://www.capmembers.com/ae).

### NORTHEAST REGION

#### July 29-31

The Quick Chek New Jersey Festival of Ballooning will take place at Solberg Airport in Readington, New Jersey.

<http://www.balloonfestival.com>

#### August 25-28

Crown of Maine Balloon Fest will take place in Presque Isle, Maine.

<http://www.crownofmaineballoonfest.org/>

### MIDDLE EAST REGION

#### July 30 - August 1

2011 Astronomical Society of the Pacific (ASP) will hold a national conference on science education and public outreach in conjunction with its 123rd annual meeting at Tremont Plaza Hotel in Baltimore, Maryland.

<http://www.astrosociety.org/events/meeting.html>

#### September 17

Sally Ride Science Festival will be held in Fairfax, Virginia.

<http://www.sallyridescience.com/festivals/11gmu0917>

### GREAT LAKES REGION

#### August 2-4

Michigan Council of Teachers of Mathematics will hold its 62nd annual conference at Dakota High School in Macomb, Michigan.

<http://www.mictm.org/>

#### August 10-13

The CAP Great Lakes Region Aerospace Education Officers School will be held in Dayton, Ohio. Contact Lt Col Sherwood Williams at [drw@new.rr.com](mailto:drw@new.rr.com) for details.

[http://glr.cap.gov/html/calendar\\_2011.html](http://glr.cap.gov/html/calendar_2011.html)

#### August 17-20



CAP Annual Conference & National Board will be held at the Marriott Louisville Downtown in Louisville, Kentucky. AE will have six seminars and AE awards will be presented.

<http://www.capmembers.com>

#### August 24

One-day Basics of Rocketry Workshop, sponsored by NASA, is open to educators and mentors. This workshop will be held at Washburn Elementary School in Washburn, Wisconsin.

<http://www.nasa.gov/audience/foreducators/teachingfromspace/educators/rocketry-workshops.htm>

### SOUTHEAST REGION

#### October 20-22

Florida Association of Science Teachers will hold its annual conference at Orlando Sun Resort and Convention Center in Kissimmee, Florida.

<http://www.fastscience.org/>

#### October 23-25

The 2011 Mississippi Science Teachers Association will hold its annual conference at Marriott Jackson in Jackson, Mississippi.

<http://www.ms-scienceteachers.org/conference.htm>

### NORTH CENTRAL REGION

#### July 29 - August 6

The National Balloon Classic will take place in Indianola, Iowa.

<http://nationalballoonclassic.com>

#### August 13-14

The Fargo Airshow will be presented at Fargo Hector International Airport in Fargo, North Dakota.

<http://fargoairsho.com>

#### September 16-18

The 2011 Great Forest Park Balloon Race is scheduled to take place at Central Field in Forest Park in St. Louis, Missouri on September 17.

<http://www.greatforestparkballoonrace.com/>

### SOUTHWEST REGION

#### July 22-24

DFW Summer Balloon Classic & Airfest will take place at the Mid-Way Regional Airport in Midlothian, Texas.

<http://www.summerballoonclassic.com/>

#### September 24

Sally Ride Science Festival will be held in Baton Rouge, Louisiana.

<http://www.sallyridescience.com/festivals/11isu0924>

#### September 24

One-day Basics of Rocketry Workshop, sponsored by NASA, is open to educators and mentors. This workshop will be held at New Mexico State University in Las Cruces, New Mexico.

<http://www.nasa.gov/audience/foreducators/teachingfromspace/educators/rocketry-workshops.htm>

#### October 1-9

Albuquerque International Balloon Fiesta will be held at Balloon Fiesta Park in Albuquerque, New Mexico.

<http://www.balloonfiesta.com/>

#### October 6-7

The Idaho Science Teachers Association and the Idaho Council of Teacher of Math will hold their annual conference at Hillcrest High School in Idaho Falls, Idaho.

<http://www.idscienceteachers.org/conference.html>

#### July 30 - August 2

The CAP Pacific Region Aerospace Education Officers School will be held at March ARB, California. Contact Lt Col Virginia Nelson at [vmnelson@juno.com](mailto:vmnelson@juno.com) for details.

<http://www.pcr.cap.gov/ae.htm>



To find out more about National Aviation Day, go to <http://www.timeanddate.com/holidays/us/national-aviation-day>