



CIVIL AIR PATROL'S K-6 ACE Program: *Aerospace Connections in Education*



U.S. AIR FORCE

Civil Air Patrol, the US Air Force Auxiliary, and, a Congressionally-chartered non-profit, humanitarian organization, has, as its mission: "To serve America by performing Homeland Security and humanitarian missions for our communities, states, and nation; developing our country's youth; and educating our citizens on the importance of air and space power."

ACE PROGRAM PURPOSE:

In an effort to address America's need to promote character development and career options at an early age, in 2007 CAP developed an aerospace-themed program that excites and engages young people in preparation for future science, technology, engineering and math (STEM) careers. The K-6 Aerospace Connections in Education (ACE) program was designed to help develop ethical, patriotic, healthy and technologically-prepared future citizens, which is of prime importance in maintaining global competitiveness and national security. As of June 2014, almost 100,000 students have participated in the ACE program. Over 16,000 students and 700 educators in 28 states were involved in 2013-2014.

ACE PROGRAM OVERVIEW:

The ACE program was designed to integrate the aerospace theme in a cross-curricular manner in classrooms across America and includes three basic elements: Academics (with a STEM focus); Character Education; and Physical Fitness---and fills three important needs for the schools of our nation:

- *Academics to meet future workforce demands, especially in the aerospace/STEM industry*
- *Character education to combat negative societal forces and prepare productive/ethical/responsible citizens*
- *Physical fitness training to create citizens living a healthy and drug-free lifestyle*



- The program involves grade-level specific curricula for grades K-6 which were designed by educators and incorporate engaging, inquiry-based activities in 144 lesson plans that meet national academic standards and address national STEM initiatives. (21 lessons per grade level)
- The lessons are designed to include classroom volunteer instructors and mentors.
- The no-cost program supplements and enriches schools' standard core curricula.
- The program is designed for either in-school or after-school implementation.
- Each teacher receives a grade-level specific curriculum, a class set of lesson resources, program completion student certificates, and an end-of-year classroom plaque.
- ACE t-shirts provide a sense of team spirit and program pride.
- Annual national ACE awards recognize outstanding students, teachers, and schools.



- 91% of ACE teachers indicate continued program participation each year.
- A 26% increase in science thinking skills on standardized tests have been achieved in schools.
- A 46% average increase in program knowledge has been identified via the pre/post test results.



ACE PROGRAM ENHANCEMENT:

ACE instructors are K-6 public, private, parochial, charter, and home school teachers who are CAP educator members, called Aerospace Education Members (AEMs). Benefits of becoming an AEM include the free curriculum for the K-6 ACE program, as well as the following additional free benefits for all K-12 teachers that serve to enhance the core curriculum and the ACE program:

- Over 25 additional national academic standards-based aerospace/STEM educational resources for classroom use, to include the 675-page textbook, *Aerospace: The Journey of Flight*
- Opportunity to apply for \$250 classroom grants
- Opportunity for free teacher orientation airplane flights
- Opportunity for free STEM Kits in astronomy, flight simulators, model & remote controlled airplanes, robotics, & rocketry



ADDITIONAL SUPPORT OF THE ACE PROGRAM:

ACE teachers are encouraged to invite other school staff members, parents, and community volunteers to volunteer to teach individual lessons to the students to bring a variety of positive role models into the classroom from which students learn important life skills.



- ⇒ Organizational representatives can volunteer to teach one or more ACE lessons during the school year to enhance the service option of the partnership with a school. Students love to have volunteers from the community take part in their educational program. It serves to reinforce adults' message to young people that "we care about you and your future."
- ⇒ Organizational representatives can present end-of-year ACE student certificates and teacher plaques at special school events.



ACE PROGRAM AWARDS:

The Aerospace Education team at the national headquarters of Civil Air Patrol in Montgomery, AL, receive all ACE program award nominations submitted by the end of April each year. The team selects the national winners based on program participation, efficacy, and impact. When circumstances warrant, an extra award is given. (This year, a group of 17 students from various grade levels were recognized out of a student body of 470 students.) The 2014 awardees represent schools from across the country:

National ACE School of the Year: *Camino Real Elementary*, Kyle, TX- Marivel Sedillo, Principal

National ACE Educator of the Year: *Laura Pink*, Antioch Elementary, Crestview, FL

National ACE Coordinator of the Year: *Kate Watson*, University Avenue ACES School, Blaine, MN

National ACE Sustained Excellence Award: *Megan Tucker*, The Palmdale Aerospace Academy, Palmdale, CA

National ACE Student of the Year: *Sam Todd*, Forest Lake Technology Magnet School, Denise Duke, Teacher, Columbia, SC

National ACE Student Group of the Year: *2nd graders: Jesus "Chuy" Montoya, Michael Tadlock, Deaghan Cunningham, Brailey Nelson, Zoey Pequeno, Briley Blacklock, Corey Blacklock, and Payton Smith; 3rd graders: Gavin Gomez and Ashley York; 5th graders: Charlene Ortiz, Kenzie Eidson, Chelsea Thomas, Cayce Britton, Jacki Sanchez, and Kaleb Auldrige*, Science Teacher, Denise Duke, Post Elementary, Post, TX

Presenting Sponsor:



Supporting Sponsors:



National ACE School of the Year: Camino Real Elementary

Through a program supported by the joint efforts of Civil Air Patrol (CAP) and the Air Force Association (AFA), Principal Marivel Sedillo, her staff and volunteers at Camino Real Elementary School in Kyle, TX, have broadened the doors of opportunity for the futures of Camino Real students.

Three years ago, Camino Real adopted the Civil Air Patrol's ***Aerospace Connections in Education (ACE)*** program after a Camino Real teacher learned of the program at a national educator conference at Johnson Space Center, Houston. The entire school has embraced the program coordinated by school counselor, Angela Vera. Classroom teachers teach the academic sections, the physical fitness teacher and the counselor each teach the physical fitness and character education sections of the program.

The school has also taken advantage of the human resources that accompany the program -- AFA and CAP unpaid professional volunteer support. Members of CAP's David Lee (Tex) Hill Composite squadron in San Marcos, TX, and the Alamo Chapter of the AFA in San Antonio, TX, have taught ACE lessons, supported the school's science night, coordinated the multiple airport field trips, and attended school-wide events that make the students and staff feel special. These mentors have built self-confidence and interest in significant future STEM careers for the students.

Principal Sedillo designated Wednesday as "ACE Day" so the students would anticipate participating in the hands-on activities, having motivational speakers visit the school, and wearing their distinctive ACE shirts during the day.

In quarterly field trips to the airport, coordinated by Cap and AFA members, Leroy Friesenhahn, Kirk McManus, and Ed Garland, teachers are given CAP teacher orientation flights, while students tour the airport and climb into the Control Tower to observe their teachers in the sky. While at the airport, the students also fly in the Redbird simulators in the airport's Flight Training Center, feel history come alive at the Commemorative Air Force Museum, and interact with positive role models and mentors. Even the CAP Texas Wing Commander has flown to San Marcos Airport to view the event! *(See Col Brooks Cima in photograph below- and in group photograph at airport.)* Students at the school observe the teachers' flights from the school grounds and participate in live streaming video teleconferencing with the teachers in the sky.

Selected from [100 ACE schools participating nationwide](#), Principal Sedillo's school is receiving national recognition as the ***2014 CAP National ACE School of the Year*** for efforts to make learning relevant for their students, who are making great strides in student achievement.

On June 3rd, CAP and AFA representatives are presenting the school's **National ACE School** award plaque and \$500 check to purchase more STEM materials for the school.

For More Information About the ACE Program, Contact:

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