

CAP K-6 Program ACEs Educational Excellence Nationwide

May 31, 2012

By Susan Mallett

Most experts agree that without a renewed focus on science, technology, engineering and math (STEM), America will fall behind in the global race of science and technology. That's why President Obama has made STEM education a key component of his "Educate to Innovate" campaign for excellence.

Long before the president's initiative, CAP had the same goal in mind when it made STEM education a core component of its cadet program for youth 12-20 years old. These programs are now complemented by a K-6th grade program -- Aerospace Connections in Education (ACE) -- ensuring STEM education touches the lives of youth of all ages nationwide.

ACE's aerospace-oriented lesson plans promote academics, character development and physical fitness. The program currently benefits about 700 teachers and 18,000 students in 27 states.

The Ohio Achievement Test results of Van Buren, Ohio's Van Buren Elementary fifth-grade students -- who had the highest science scores in the county -- is typical of the program's success.

"This is a validation of how aerospace education CAN and DOES cover state and national standards," said their teacher, **Beppie Walerius, who was named 2012 ACE Teacher of the Year**. "We had a 96.3 percent passage rate. And, what the statistics don't show is that there were NO students performing at a limited level!

"It is amazing what young people can do when they are self-motivated," she said. Ms Walerius has inspired her students to be self-motivated through the myriad enrichment opportunities given them through the ACE program. Activities, such as building and launching rockets, airplanes, and hot air balloons, has kept the inquiry level high in Ms Walerius's classroom.

Wrights Mill Road Elementary in Auburn, Ala., is another ACE success story. All of the school's 500 students in grades 1-5 were exposed to ACE as a supplemental enrichment program led by fifth grade teacher **Christi Keith**. She was named **2012 ACE Coordinator of the Year** for her efforts, which included ACE Lift-off events with school-wide aerospace activities, motivational speakers to include college students in the AFROTC program, and a CAP airplane fly-over with Keith and another ACE teacher on board for a Teacher Orientation Program (TOP) flight.

CAP TOP flights take aerospace education teachers out of the classroom and into the sky, creating enthusiasm for aviation and aerospace education that can only be gained from firsthand experience. This program is a perfect compliment to the ACE program.

Matthew Cratem, a sixth-grade student from San Jose Catholic School in Jacksonville, Fla., has been interested in aerospace education as long as he can remember, having explored airports, attended Space Camp week-end, and researched all types of science related to aerospace and future careers in his free time. His sixth grade year was consumed with the ACE program, inspiring his classmates by completing all of 21 ACE assignments, competing in the Robotics competition, and contributing to class

lessons with extra information he found in his research of NASA. **Matthew earned the 2012 ACE Student of the Year award**, as well as a Right Stuff award from the school to attend a week of Space Camp.

Antioch Elementary School in Crestview, Fla., was presented the 2012 ACE School of the Year award for their outstanding efforts to include the community in their education program for ACE demonstrations and class instruction. This honor is shared by the school's 43 classroom teachers, as well as its 800 K-5 students.

Two ACE school coordinators were recognized with the 2012 ACE Accolade Award for exceptional achievement. Brandi DeSandro, K-6 teacher with Pike County Schools in Alabama, secured grants to support the ACE program she coordinated in two schools, and, in the process, helped inspire her rural Indian students toward higher goals. **Tracy Huemoeller, a third-grade teacher at Anthem School in Anthem, Ariz.**, led her school toward 100 % participation and exciting enrichment and team-building opportunities connected with the ACE program.

"The interactive aspects of the ACE program really motivate kids," said Huemoeller. "Learning a concept and then practicing it with things that relate to the real world is the best way to learn."

But ACE is imparting more than aerospace education's usual suspects, math and science. Reading and writing skills get almost equal focus. "ACE is so valuable because you get such a variety of lessons that are all interconnected. ACE incorporates a lot of writing and reading, which scientists and engineers use a lot," Huemoeller said. "We are certainly preparing our students for more challenging programs in upper grades."

One of the greatest benefits of the K-6 ACE program at Huemoeller's school, is the charter of a CAP Cadets at School program wherein students graduate from the ACE program and are given the opportunity to become CAP cadets in grades 6-8 while at school. Anthem Principal Pat Yennie said, "The ACE program is an excellent way to prepare young people for other leadership roles in school and the community. During school-wide assemblies, our 6-8 grade CAP cadets wear their dress blues and march in formation. The younger students look up to the cadets, who are amazing role models for them."

Another group of young adults are mentoring students with the ACE program in their Elementary STEM Orientation (ESO) Program across the nation. College ROTC students affiliated with the Arnold Air Society and the Silver Wings chapters have implemented the ACE program with young students in their communities. These positive role models are making a significant contribution toward the future of these young people. The ESO program is supported by the Air Force Association, which is also promoting ACE program sponsorship and support in communities around the country through their 250 AFA chapters nationwide.

An attractive benefit for teachers is the cost of the ACE program. It's free of charge for CAP teacher members. Participants receive a curriculum guide of aerospace-themed, national academic standards-driven lessons for their grade level; a class set of educational resources relating to the program; ACE T-shirts that build team camaraderie; student ACE program completion certificates; a teacher plaque noting successful ACE program completion; and, most importantly, the opportunity to have CAP senior and cadet members work with the schools in this unique program.

Sponsoring partners of the ACE program are the Air Force Association, FLIR Thermal Imaging Systems Inc. and Lightspeed Aviation Foundation.

For more information about the ACE program, visit www.capmembers.com/ace and or contact ace@capnhq.gov.

Just the Facts

- ACE schools have seen a 27 percent increase in standardized science-thinking skills assessment.
- Pre- and post-tests reveal a 46 percent average increase in students' program knowledge.
- 91 percent of ACE teachers plan to retain the ACE program as part of the overall school program.
- The ACE program is designed to inspire the students of today toward the aerospace careers of tomorrow. These students will be prepared to maintain national security and global competitiveness for America well into the future.