

Archived Information

NASA Aerospace Education Services Program (AESP)

Goal area of the activity: Improving teacher quality

Summary:

- 35 Aerospace Education Specialists, former classroom teachers certified in content areas of science, mathematics, geography, technology education, and familiar with curriculum frameworks/standards and systemic architecture of states and U.S. territories they serve.
- Research-based program provides customized professional development workshops for K-12 educators and university preservice students to help develop competencies in science, technology, engineering, and mathematics (STEM) content. Workshop design and implementation based on research about how students learn and effective delivery techniques. Programming includes classroom visits where specific scientific and mathematical concepts and models studied in depth and career possibilities explored.
- Ensures engagement of minority and underrepresented students, educators, and parents from rural and urban communities. Fosters greater student awareness of STEM careers and multicultural contributions to aerospace.
- Uses knowledge of the scientific and technological advances developed as result of NASA's research, discovery, and exploration, state-of-the-art educational technology, relevant NASA websites, models of NASA vehicles, and Agency-specific equipment to provide educators with motivational, real-world, information and activities. Designs and constructs equipment to support workshop activities, providing educators with unique, low cost teaching tools and compelling teaching experiences.
- Mobile units, with ability to reach out to all American communities. During last fiscal year, AESP programming conducted in all fifty states, Puerto Rico, and the Virgin Islands. Educators from Guam participated in two-week AESP workshop stateside.

Accomplishments/Results:

- FFY '02 AESP workshops supported 4,567 grades K-4 educators, 7,592 grades 5-8 educators, 3,490 grades 9-12 educators, and 662 pre-service teachers at colleges and universities, to help develop STEM competencies.
- Total of 1,081,176 persons reported being recipients of AESP programming in FFY '02. In addition to data reported for teacher workshops, classroom visits, and assembly-type programs, total number represents informal education opportunities for the general public in science and technology centers, museums, planetariums, public libraries, civic organizations, and regional television audiences.
- Documentation that activities presented and curriculum-enhancement products made available support clients' curriculum frameworks and educational objectives.
- Clients reported increased credibility with students and peers and improved self esteem.

Plans for the next twelve months

- Major focus will be research-based initiative to provide more sustained workshops.
- Active collaborators with NASA Explorer Schools Program.
- Continue "to inspire future generations of explorers ... as only NASA can."