STEM Inventory

Entry# 51

Program-Title Space Days

Lead Traveling Space Museum, Inc. PoC "Space Days"

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Address 4658 Don Lorenzo Drive Unit D Los Angeles,CA 90008

Non-Profit-based

URL

Org-Type

Service-Region Nationwide

Type Professional Development for Teachers | Student Program

Subjects General Science | Math | Chemistry | Physics | Earth Science | Space | Computer Science | Engineering | Robotics | Other

Level Elementary School (K-5th grade)

Other-Objectives

Served-per-Year 15,000 Demographics

Content

Simply put, TSM brings the space museum to schools. Specializing in the use of full-scale simulators as teaching tools, TSM's many interactive attractions include the only full-motion flight simulator, space laboratory mockup and jet aircraft to visit schools regularly nationwide. Interactivity is key as students are invited to climb in and operate real and very functional hardware. Inside the simulators the students are completely immersed in the experience. The typical museum will not allow students to touch the exhibits much less climb inside them! Students are introduced to lab top computers, computerized microscopes, heart monitors, glove boxes, CB radios and other equipment. Operating the hardware teaches relevancy and that understanding makes the learning process fun! Students liken Space Day to an outing at a theme park. The lessons learned are memorable enough for students to go home and relate their new found knowledge of space to parents, friends and siblings. Space Day makes a school to be the coolest place to be! TSM also recruits youthful guest speakers to schools who have accomplished amazing feats in science and aviation -often sponsored by TSM. This included Katrina Mumaw, the youngest person to break the sound barrier and Justin Houchin-the youngest to fly a military jet for the National Test Pilot School in Mojave Ca. Kids love to meet amazing kids!

Outcomes

TSM's "Space Day" program stimulates student inquiry in astronomy, rocketry, manned space flight, meteorology, 'space biology' and other aspects of aerospice education. Students are inspired to become astronauts, scientists, engineers and pilots. Several of TSM's teen proteges are currently taking flying lessons and winning science fair awards. TSM's first protege, a 15 year old named Katrina Mumaw recuited in 1998 graduated the Air Force Academy in 2006. TSM also began its "Students Teaching Students" program at a recent Space Day event at Millikan Middle School in Sherman Oaks, Ca. The school's Advance Placement students (those taking college level science courses) became 'inquiry coaches' demonstrating the exhibits to fellow students. The Science Chair and Administrator deemed STS a big success and a good 'ground school' for aspiring teachers!

Started Funded-Through

Length Ongoing Cost

Primary-Funding Industry Primary-\$

Materials

Other-Funding

How-Assessed

Best-Practice-Why

A Space Day is unique as it is likely to be the only shared experience that includes the entire school population! And just how real are TSM simulators? Just ask Gordon Fullerton, Commander of the 3rd Space Shuttle flight. Fullerton had a ball piloting TSM's Orion CRV flight simulator! He was fascinated just looking at it. He had to cram his long legs into the narrow cockpit of the Orion and commented that "NASA never made any cockpit big either!" He quickly mastered the tricky action of the joystick. ISS Commander and Mission Specialist Dr. Leroy Chiao was the second former astronaut to fight TSM's Orion. He gave the experience "two thumbs up!"

Promising-Practice

The Traveling Space Museum's "best practice" use of simulators was inspired by the US Army's use of simulators during World War II. The Army taught young recruits how to fly airplanes while still on terra firma. Former astronauts Gordon Fullerton and Dr. Leroy Chiao who have 'flown' TSM simulators recognized their effectiveness as teaching tools and the fascination that kids would have for them. LMCO's formal evaluation of an early Space Day reported that 10 of 12 teachers gave the full scale simulator presentations their highest rating: 10 out of 10 and an over all score of 9.7 "in providing educational concepts in an innovative, inspiring and exciting manner to students. 95% of the teachers said that TSM's "Space Day" 'exceeded their expectations.' One teacher notices that a usually energetic student was walking slowly during Space Day. The boy elegently reasoned that he if he walks slowly - the day would last longer! Another teacher was stunnned to receive her first unsolicited book report! The school librarian noticed a run on space science books days after Space Day. A fourth teacher was surprised when a student who usually has trouble writing a paragraph, has no problem writing about Space Day! This same teacher heard a Special Ed. student say "that with hard work, I can do anything!" Travelin Space Museum won the The National Space Society's "Best Education Program Award" (with the Orange County Space Society)for "Space Day in Compton Ca. 2001." In 2005, TSM Founder Ivor Dawson received the Shuttleworth Leadership Award for inspiring youth Presenter Mary Shuttleworth, Founder of The Shuttleworth Academy and Mary's Schoolhouse is the aunt of billionaire space tourist Mark Shuttleworth. One day, in a not-too-distant future, every school will have a language lab, a compuer lab and a TSM space lab module for kids to explore.

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Other-Orgs

Los Aangeles Unified School District, AIAA, World Space Foundation, A-MAN International Science & Discovery Center, El Segundo USD Riverside USD, Manhattan Beach USD, Science & Technology Education Partnership (STEP)-Riverside, Raytheon's MathMovesU Program, San Fernando Valley 99s, SFV 99s' Aviation Explorers, Long Beach 99s, Experimental Aircraft Association, EAA Young Eagles program, FIRST Robotics, Team 980 ThunderBots, Lockheed-Martin Corporation