

Kennedy Education

Legends, Trailblazers Inspire NASA's Future 08.04.10

It's never too late to taste inspiration and use it to pursue ambitious goals, students learned during a forum aimed at stimulating scientific, technical, engineering and mathematic careers.

NASA's Education Office sponsored a Minority Student Education Forum for fifth-through 12-graders, from July 27 to 29, to fuel the minds of hundreds of minority students. Each day, the students experienced a new adventure, such as touring NASA Kennedy Space Center facilities, seeing the Visitor Complex, and meeting some of NASA's greatest legends and trailblazers. Their message: It's never too late to follow your dreams.

"What helped me was imagination and desire . . . you have advantages that we didn't have," Isaac Gillam, the former director of NASA's Dryden Flight Research Center, told the students.

Along with Gillam, the forum featured icons, such as the Director of NASA's Glenn Research Center Donald Campbell, Glenn's former Director Dr. Julian Earls, the former Associate Administrator for Aeronautics at NASA Headquarters Dr. Wesley Harris, and Katherine Johnson, NASA's first female African-American, "human computer."

Each speaker stressed embracing education.

"Develop a passion for something you like to do, learn to do it well, stay on top of what's going on and be prepared for what's coming next . . . because you never know, you could be next," said Katherine Johnson, who calculated the trajectory of Alan Shepard's first flight into space, Mercury 7, in May 1961. She also graduated high school at the age of 14 and college at 18.

Keosha Nelson, a rising 10th-grader at Andrew Jackson High School in Jacksonville, Fla., is taking Katherine Johnson's message to heart. She hopes to one day be a gynecologist and would like to open a hospital that provides free healthcare to everyone, regardless of age, sex and ethnicity. It may sound like a far-off dream, but the point of the forum was to dream big, reach for the impossible, and spread your wings and fly.

"You've heard the old law of physics that a bumble bee can't fly. Every aerodynamic principle says that its wing span is too short to support its massive body in flight," Earls said. "But a bumble bee doesn't know that. It never took physics. It just flies around all over the place and that's what you have to do."

This forum wasn't Rafael Valazquez's first experience with a STEM program sponsored by NASA. The rising ninth-grader from Puerto Rico said he helped build a robot for the Vex Robotics Competition with his team, "Cybergenetic," which took home first place in a regional competition. He said he wants to be an aerospace engineer, so touring Kennedy Space Center was quite a treat.



Image: A student engages in a hands-on activity at the Minority Student Education Forum. Photo credit: NASA/Cory Huston



Image: NASA Astronaut Leland Melvin high-fives fifth- through 12th-graders at an education forum. Photo credit: NASA/Cory Huston



Image: NASA legends talk to fifth-through 12th-graders at an education forum. Photo credit: NASA/Cory Huston

"They gave us a tour of the Saturn V Complex and the Space Station Processing Facility . . . and I'm amazed at what people can do," Valazquez said.

Victoria Isabel Quintanilla, a rising seventh-grader from Austin Middle School in San Juan, Texas, said she was stunned that out of all of the students in the Rio Grande Valley, she was chosen for this once-in-a-lifetime opportunity. It was a paper she wrote on advancing technology that guaranteed her a spot. In the future, she would like to be an astronaut who studies life sciences and astronomy.

"I want to experience the final frontier," Quintanilla said, "study life on other planets and help cure cancers, such as leukemia."

Along with legends were trailblazers, including NASA astronauts Leland Melvin and Dr. Ellen Ochoa, the Assistant Associate Administrator in NASA's Office of the Administrator Christyl Johnson, Acting Associate Director for Business Operations Kelvin Manning, Glenn's Associate Director Vernon Wessell, and Raquel Redhouse, a mechanical engineer at Glenn.

Jamian Rush, a rising eighth-grader from Byram Middle School in Terry, Miss., said he enjoyed hearing about each trailblazers' journey. His dreams, too, are quite impressive.

"I would like to help the paralyzed walk again . . . help the blind see," Rush said.

Some of the students must give a hands-on presentation to a local school, church or community after they return from the forum, said Pamala Heard, director of the NASA Educator Resource Center at Jackson State University. For Heard, the most important inspiration was the sentiment that it is never too late to start over.

One of Heard's students, Dusty Smith, a rising eighth-grader from Rebul Academy in Learned, Miss., wants to help build the next generation of human spacecraft. He said he will pass along Melvin's messages about people giving their lives for technology and the need to carry on their legacy.

Melvin also laid another colossal goal before the students when he challenged them to make the world peaceful by describing his time aboard the International Space Station.

"We're having a meal in space just going around the planet at 17,500 mph, all of us sharing our food, and we're flying over Afghanistan and Iraq . . . and we're just thinking to ourselves, if more people had the opportunity to sit down and break bread together, there would be no more wars.

"The only way to break stereotypes is to have a conversation, face-to-face, one-on-one, looking in someone's eyes. And if you do it over a meal, you have the added benefit of, 'Mmmm . . . that tastes good,'" Melvin said.

The forum was part of NASA's "Summer of Innovation" initiative and the federal "Education to Innovate" campaign to increase the number of future scientists, mathematicians, and engineers. "This is about the kids, their dreams and aspirations, and hopefully leading them to an aerospace career," said Theresa Martinez, NASA's Minority University Research and Education Programs, or MUREP, Small Projects manager.

"Don't let anyone tell you can't have it all," said Christyl Johnson. "I'm living proof you can."

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