



FLIGHT Exhibit Taking off at EdVenture!!

This summer, EdVenture opens its newest exhibit, FLIGHT, designed to:

- introduce visitors to the world of aeronautics and teach the forces of flight,
- connect science, technology, engineering and math concepts directly to South Carolina aeronautic-related career opportunities,
- convey NASA's role in aeronautics and its future in flight,
- experience the sensation of flight from the pilot seat in a real Boeing 757 cockpit, overlooking the Gervais Street Bridge

About the components in the Flight Gallery:

The 1700 sq. ft. gallery is an immersive environment where visitors can explore several exhibits that promote the physics of flight in air and space. Visitors will be able to experiment, design and investigate why some objects have the potential to fly and others do not.

Boeing 757 Cockpit: Get a pilot's eye view from a real flight deck and experience Columbia's best view of the Gervais Street Bridge.

Simulators: Test your piloting skills and feel the sensation of flight in three Boeing 747 flight simulators.

Test Flight Zone: Build and test the flying ability of your own paper airplanes.

Manufacturing Zone: Work with the latest robotic technology used to build airplanes right here in South Carolina.

Wind Tunnel: Put on wings and feel the effects of the wind's power.

Video wall: See Greater Columbia from Forest Acres to Lake Murray from a pilot's view

Education Benefits:

FLIGHT

- Nurtures curiosity in flight, space, engineering and physics through educational standards-based programming, provides opportunities through use of science, technology, engineering and math (STEM) content to explore current NASA endeavors and diversity of its careers.
- Provides professional learning opportunities for both pre-service and experienced teachers through the integrated use of NASA/STEM topics, resources and informal science.
- Serves as a springboard for educational programming. In 2016, EdVenture provided STEM-and flight based programming to over 1200 children and caregivers in its public programming-Club EdVenture sites, the afterschool program, camps, and countless community events and festivals.
- The exhibit has provided opportunities for Interns who lead STEM-based programming and professional development, reaching nearly 400 educators and preservice teachers at the museum, as well as at teachers conferences during the past year. In addition, our Flight Fellows reached nearly 500 visitors and campers in the museum and over 2,000 children and their families in our community outreach events.
- The exhibits will engage students in activities designed to teach about flight, specifically its four basic forces: lift, gravity, thrust and drag. This has also served as an excellent way to advocate community awareness regarding flight as we did on August 19, when the museum helped celebrate National Aviation Day.

Economic Development and Workforce Readiness:

- Aviation has a tremendous impact on the state's economy
 - \$19 billion impact that aerospace has in SC
 - Around 100,000 jobs generated
 - \$4 billion in aircraft and spacecraft export sales
 - \$532M average annual state tax revenue generated
 - Over 400 private sector SC firms
 - Job creation: for every 10 aerospace private sector jobs created, 13 additional jobs are created elsewhere in the state's economy

Studies project that seven out of the 10 fastest growing occupations over the next 10 years are in STEM fields with starting salaries in aviation at \$70,000.

- With aerospace being the second largest industry in our state, EdVenture leadership is well-aware of the industry's impact on both education and economic development. Our team has convened many of the necessary players to help direct our efforts to promote efforts to increase the public's understanding of NASA's important role and contributions, while building upon children's interest in flight, space, engineering and physics.
- At EdVenture, it is the responsibility of the museum to spark the interest in STEM based careers by placing an emphasis on manufacturing, engaging visitors in flight simulations, and allowing children a chance to sit in a cockpit of an airplane that was made in South Carolina.

Community Partners

Exhibit supporters:

- NASA
- City of Columbia
- Hood Construction, Inc.
- JHS Architecture: Integrated Design, Inc.
- Magellan Aviation Group
- Universal Asset Management
- Ronald E. McNair Center for Aerospace Innovation and Research

Support and Guidance from other partners, including:

- The Boeing Company
- S.C. Council on Competitiveness
- S.C. Aeronautics Commission
- S.C. State University
- NASA Explorer School at Forest Lake Elementary
- University of South Carolina
- Benedict College
- S.C. Department of Education
- Columbia College
- South Carolina Department of Education Office of Career and Technology Education
- Richland County District One Challenger Learning Center
- South Carolina Department of Commerce