

About the Program

Arnold Engineering Development Complex's educational tour programs are designed to SPARK the interest of students, IGNITE the imagination and keep students' MINDS IN MOTION.

The programs' mission is to increase the level of outreach to educators and students and help motivate today's students to become tomorrow's engineers and scientists.

Students will learn about the work AEDC does and its importance to America's air and space superiority. Students also have the opportunity to interact with members of the Air Force and other center employees and ask specific questions about flight, educational requirements and military life.

All educational programs provide students the opportunity to participate in hands-on demonstrations and tour testing facilities on base.

Requirements

All students, chaperones and bus drivers participating in any AEDC educational tour must complete a Hold Harmless Agreement form. A Talent Release form must be completed for each minor and signed by a legal parent/guardian prior to touring AEDC. Due to Arnold Air Force Base security requirements, chaperones or parents cannot be added to the tour any later than three days before the tour date.

Tours are conducted using the group's transportation - a small shuttle or a bus. Please ensure you arrive on one bus with enough room for the tour escort. Multiple cars or a caravan of vehicles are NOT allowed for touring.

AEDC educational tours must be scheduled two weeks in advance. For more information or to schedule a tour date, please contact the ATA Public Affairs office at (931) 454-5655.

Spark

IGNITE



AEDC's Spark program is designed for elementary students in third, fourth and fifth grades. A hands-on demonstration teaches students about the aspect of flight tied directly to the testing conducted at AEDC. The tour can be tailored to your class curriculum. The Spark demonstration and tour is conducted in two and a half hours.

- Class Size Limit: 35-55 (including chaperones)
- Chaperone-to-Student Ratio: At least 1:10



The IGNITE program is designed for sixth and seventh grade students. This program transitions students between the Spark and Minds in Motion programs. They also participate in a hands-on demonstration and a tour which is approximately two and a half hours.

- Class Size Limit: 35-55 (including chaperones)
- Chaperone-to-Student Ratio: At least 1:15



AEDC teamed with the University of Tennessee Space Institute to develop an educational outreach program designed specifically for eighth grade students called Minds in Motion. The students' time is divided between AEDC and UTSI. At both locations students tour facilities and participate in hands-on-demonstrations. Participation in Minds in Motion involves an entire school day. The tour and lunch is conducted in approximately 4 hours

- Group Size Limit: 35-70 (including chaperones)
- Groups larger than 70 must come on separate days
- Chaperone-to-Student Ratio: At least 1:20

About AEDC

The Air Force's Arnold Engineering Development Complex (AEDC) located at Arnold Air Force Base, Tenn., is the nation's premier aerospace ground flight test simulation facility. AEDC also has remote operating locations at the Hypervelocity Tunnel 9 in Silver Spring, Md., and the National Full-Scale Aerodynamic Complex (NFAC) at Moffett Field, Calif.

The complex has test facilities ranging from large wind tunnels and altitude jet and rocket test cells to space chambers, ballistic ranges, arc heaters and small research test cells. These unique test facilities can simulate conditions from sea level to space and from subsonic to hypersonic speeds up to Mach 20.

AEDC has played a key role in the development of all high performance military jet aircraft, missile and space systems used by the Air Force, Navy, Marines and Army. AEDC tested all the manned space programs from Project Mercury to the space shuttle and many commercial aircraft.



Science
AEDC Technology Center
Engineering
Mathematics



Portable and Static Wind Tunnels



Planetarium



Flight Simulator

AEDC's STEM Center is designed to provide an exciting and interactive learning environment for teachers and students K-12.

The mission is to inspire and develop student interest in STEM careers, especially in communities that surround military bases, laboratories, and other Department of Defense facilities.

AEDC strives to match hands-on activities with the school's curriculum; making learning fun for teachers and students. AEDC speakers, with a wide variety of expertise and life experiences, may be provided to assist classes with a specific program of study.

Scientists, engineers and other professionals may be available to set up demonstrations at regional schools and judge projects at local science fairs.

The STEM center is equipped with hands-on demonstrations ranging from flight dynamics and robotics, to constellations and moon colonies.



For more information contact:
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DEVELOPMENT COMPLEX
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