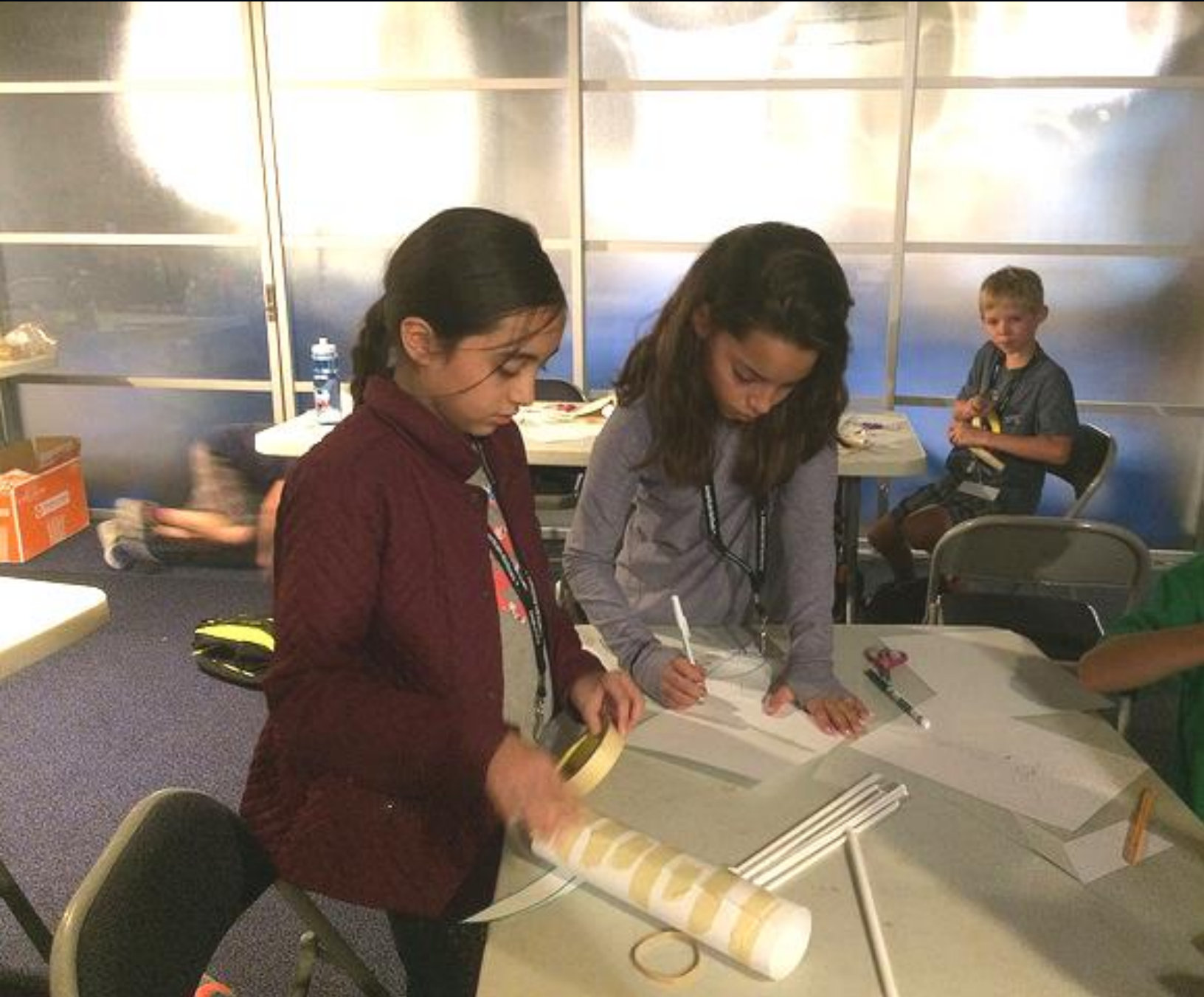


# FIELD TRIP GUIDE

AMERICAN AIRLINES CR SMITH MUSEUM

2017-2018



CR SMITH MUSEUM  
[www.crsmithmuseum.org](http://www.crsmithmuseum.org)



# Planning a Field Trip

The CR Smith Museum offers TEKS aligned, grade appropriate self-guided and guided programs.

**GROUP RATE: \$3/person**

- **To qualify, groups must have at least 15 people, pay in one transaction & schedule in advance**
- **Please schedule all programs at least 2 weeks in advance**

**Funding is available for Title 1 schools.**

Please let us know if you are interested in applying for a *Flight Science Workshop Grant* that will help cover the cost of your school's CR Smith Museum admission and workshop fees.

**Field trips may be scheduled Tuesday-Saturday between the times of 9am and 5pm.**

We encourage all schools to schedule field trips by February 2018 for the upcoming 2017-2018 school year.

**SCHEDULED MUSEUM CLOSURE: MARCH– MAY 2018**  
**THE MUSEUM IS HAVING A SCHEDULED RENNOVATION BEGINNING IN MARCH 2018 THROUGH MAY 2018. THE CR SMITH MUSEUM WILL BE CLOSED DURING THIS TIMEFRAME TO THE PUBLIC. MUSEUM OUTREACH PROGRAMS WILL BE AVAILABLE DURING THIS TIME FOR GROUPS. OUTREACH PROGRAMS MAY BE SCHEDULED FOR SCIENCE NIGHTS, SCHOOL PROGRAMS, CAREER FAIRS AND MORE!**

**Contact Us!**

**Website: [www.crsmithmuseum.org](http://www.crsmithmuseum.org)**

**Email: [Lauren.Giffin@aa.com](mailto:Lauren.Giffin@aa.com)**

**Phone- 817-967-5904**

**4601 Highway 360 at FAA Rd**

**Fort Worth, Texas 76155**



**CR SMITH MUSEUM**

## Planning a Field Trip

### Self-Guided Field Trip Programs- All Grade Levels

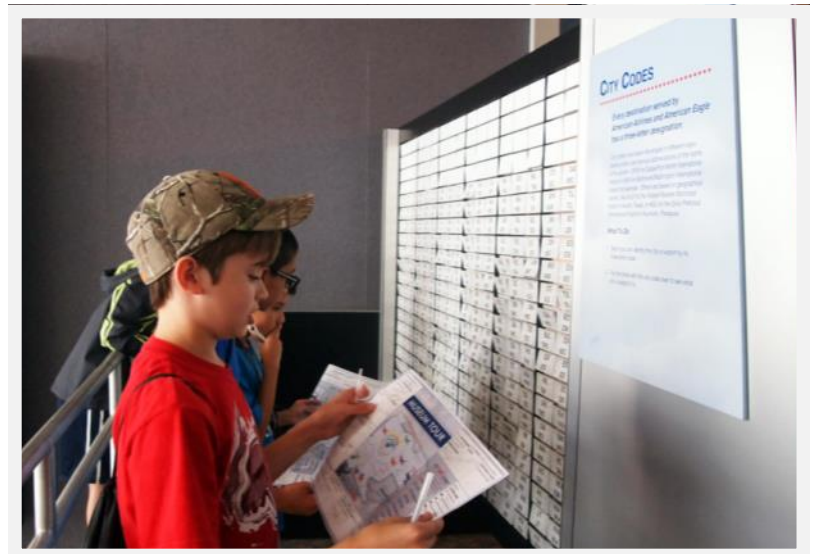
Take your students on a trip this semester! Your journey begins with our high resolution short film, *The Pursuit of Flight*, where students will learn about the inventors and innovators that conquered the skies! The CR Smith Museum's exhibitions share the history and science of American Airlines and the world of aviation. Travel through over 80 years of aviation history, board a 1940's DC-3 aircraft, discover flight science, test wind tunnels and dive deeper into the industry, careers and people that make up American Airlines.

**Key Themes: History, Science and Technology, Geography, Force & Motion and Engineering Design**

### Scavenger & Treasure Hunt Program- All Grade Levels

The Aviator's Scavenger Hunt and Treasure Hunt guides students through permanent exhibitions and allows students to explore all areas of the Museum with your group leader. Questions focus on city airport codes, the forces of flight, the DC-3 aircraft and the history of aviation.

**Key Themes: History, Science & Technology, Force & Motion and Geography**



### Guided Field Trip Programs

#### Flagship Knoxville Walk-Around- All Grade Levels

Join Museum Staff and Volunteers on a 20-minute pre-flight maintenance check around the DC-3 aircraft, learn the different parts of this aircraft and discover why it is the most important aircraft in commercial aviation history . Tours are included with your group admission, but must be scheduled at least 2 weeks in advance.

**Key Themes: Science & Technology, Engineering Design, Force & Motion, History and Careers**  
**Cost- Included with Museum Admission**





## Flight Science Workshops Grades K-12

Enhance your field trip experience by allowing students to get even more hands-on in our Flight Science Workshops. Museum staff and volunteers will dive deeper into the science, engineering, technology and math of flight. Students will be challenged to put their new knowledge to the test and participate in one of our age-appropriate engineering builds.

**Must have at least 8 participants and up to 50 participants per session 45-60 min program. Larger groups may schedule multiple workshop sessions during their visit.**

**Key Themes: Science, Technology, Engineering and Math, Engineering Design. Themes vary based upon workshop build.**

**Cost- \$5/ participant (price includes 1 workshop and Museum admission)**



## Outreach Programs All Grade Levels

Can't make it to the Museum? Would you like for the CR Smith Museum to participate in your school's science night or career day? Many of our Museum programs can be adapted as Outreach Programs! ***Please contact Lauren.Giffin@aa.com for more information.***

**MUSEUM CLOSURE REMINDER- THE CR SMITH MUSEUM IS SCHEDULED TO BE CLOSED FROM MARCH- MAY 2018 DUE TO A EXHIBITION RENNOVATION. WE RECOMMEND SCHEDULING FIELD TRIPS PRIOR TO FEBRUARY 2018. OUTREACH PROGRAMS ARE STILL AVAILABLE DURING THE TIME PREIOD.**



**CR SMITH MUSEUM**

## Available Workshops

### Wind Tunnel Testing (grades K-5)

45 minute program. Students will discover the principles of air, air pressure and the forces that affect flight through an engaging live demonstration, hands-on experiments and an engineering challenge. Also, learn how aerospace engineers use wind tunnels to design and test flight. Students will then be put to the test to design their own hovercraft in our Museum wind tunnels.

### Build a Communication Network (grades 2-6)

45 minute program. Introduce your students to sound, signals and sensors! Students will not only learn the science behind sound waves and how it is used to assist pilots communicate, but also the aviation alphabet and language. Students will plan and build a network to send communication signals in multiple directions to multiple people.

### Power a Plane Using Stored Energy (grades 5-8)

45-60 minute program. Students will learn the different parts of an airplane and design their own glider. After a short lesson on potential and kinetic energy, students will then be challenged to power their plane using stored energy. Students will also learn about the role of aviation engineers through interactive videos.

### Engineer a Long Spanning Wing (grades 4-8)

Students will discover the materials, frame and design needed to engineer a long aircraft wing. While airplanes need to be strong, they also need to be lightweight. Put your students to the test to try and build a durable, yet lightweight wing through this hands-on program.

### Build a Plane Painting Machine (grades 6-8)

45-60 minute program. Have you ever wondered why are planes painted? Well, for a variety of reasons– to protect the plane, improve aerodynamics, and for decoration! Students will make a plane painting machine to draw a design on your airplane.

## Upcoming Special Exhibitions/Events

### November 10th– Aviation & Transportation Career Expo

Co-hosted by DFW Airport and CR Smith Museum

Go to the following link for more details and to register:

<http://www.dfwcareerexpo.com/>

### September 28th– STEM Education Open House

5pm-8pm

Free to Teachers, Parents and Students. Learn more on our education programs for field trips, community groups and homeschool groups.



**CR SMITH MUSEUM**

# TEKS Standards Alignment

Workshop Theme	Grade Levels	Scientific Investigation and	Matter & Energy	Force, Motion & Energy
<b>Wind Tunnel Testing</b>	<b>K</b>	1AB, 2ABDE, 3ABC, 4A	5 ABC	6 CD
	<b>1</b>	1AB, 2ABDE, 3ABC, 4A	5 ABC	6 CD
	<b>2</b>	1AB, 2ABDE, 3ABDE, 4AB	5 ABC	6 CD
	<b>3</b>	1A, 2AB, 3ACD, 4AB	5B	6 BC
	<b>4</b>	2ABF, 3AD	5A	6AD
	<b>5</b>	2ABF, 3ACD	5A	6AD
<b>Build A Communication</b>	<b>2</b>	2ABDEF, 3ABC	5CD	6A
	<b>3</b>	2ADEF, 3ACD		6A
	<b>4</b>	2ABF, 3AD		6AD
	<b>5</b>	2ABF, 3ACD		6A
	<b>6</b>	2ABCE, 3ABCD		9C
<b>Engineer A Long Spanning Wing</b>	<b>4</b>	2AD, 3AD	5A	6D
	<b>5</b>	2ABDF, 3ACD	5A	6D
	<b>6</b>	2ABCE, 3ABCD		8AB
	<b>7</b>	2ABCE, 3ABCD		7A
	<b>8</b>	2ABCE, 3ABCD		6A
<b>Power A Stored-Energy Plane</b>	<b>5</b>	2ABDF, 3ACD	5A	6AD
	<b>6</b>	2ABCE, 3ABCD	7A	8AB
	<b>7</b>	2ABCE, 3ABCD		7A
	<b>8</b>	2ABCE, 3ABCD		6AC



American Airlines  
CR Smith Museum

# STEM Education Open House

Thursday,  
September 28th  
5PM-8PM

**Free Event  
for Students,  
Parents and  
Educators**



Come learn more about  
our educational field trip  
programs offered for  
schools, community  
groups and homeschools  
at the **CR Smith Museum**

Generously supported by:

- ◆ STEM Design Challenges
- ◆ View Museum Exhibitions
  - ◆ Talk to Museum Staff
- ◆ View our Museum Film & More!



For more information and to **RSVP**, contact [Lauren.Giffin@aa.com](mailto:Lauren.Giffin@aa.com) or 817-967-5904  
4601 HWY 360 at FAA Road  
Fort Worth, TX 76155



## CR SMITH MUSEUM





## **2017 Aviation & Transportation Career Expo**

**Friday, November 10, 2017**

**Grades 4-12, College**

**Session 1 9:30am-11:30am**

**Session 2 11:30am-1:30pm**

From piloting a major airline plane, managing a local or national rail line or driving an emergency response vehicle, the Career Expo gives students an opportunity to learn about careers, ask questions of industry experts and enjoy a hands-on experience in a variety of aviation and transportation fields.

Numerous static aircraft, vehicles displays and information booths representing local, regional and national members of the aviation and transportation community will be available to everyone attending this dynamic educational experience.

This year we are breaking student attendance into two sessions, morning and afternoon, allowing you to attend the session that best meet your individual needs. And attendance is FREE! However, you must register by October 20 for one of the sessions, arranging your own transportation to and from the event.

**School Registration Deadline is Friday, October 20, 2017.**  
**To register visit, [www.dfwcareerexpo.com](http://www.dfwcareerexpo.com)**



**CR SMITH MUSEUM**