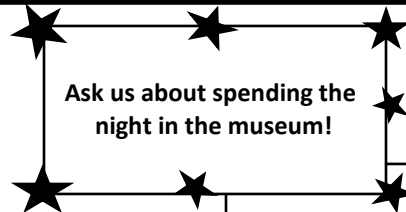


**Education Pricing**

- 1 Museum only: \$10 per student**  
 Title I Discount: \$7 per student
- 1 Movie only: \$5 per student**  
 10:00 AM, 25 min. option: \$2 per student
- 1 Museum & Movie: \$15 per student**
- 2 Museums: \$15 per student**  
 Title I Discount: \$11 per student
- 2 Museums & Movie: \$18 per student**



Teachers & bus drivers are free for museums only, not theater or other activities. Chaperones are same rate as students.

**NGSS Aligned, History & S.T.E.A.M. Centered Education Programs**

**Aviation Museum:**

*(30 minutes each unless otherwise indicated):*

PARTICIPATE IN A MORE SPECIALIZED, UNIQUE TOUR BY CHOOSING A TOPIC!  
 (TYPICAL TOURS FOLLOW THE TIMELINE OF AVIATION.)

<ul style="list-style-type: none"> <li>• Early Aviation</li> <li>• World War I Aircraft</li> <li>• World War II Aircraft</li> <li>• Vietnam War Aircraft</li> <li>• Unmanned Aviation</li> </ul>	<ul style="list-style-type: none"> <li>• Helicopters</li> <li>• Commercial Airliners</li> <li>• Experimental Aviation</li> <li>• Hidden Figures</li> <li>• Restoration Department</li> </ul>
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**NAVIGATION:**

- Flight Simulator Lab (Grades 3-12): Learn basic flying skills and airplane systems while flying a simulated mission
- Jr. Navigators (All grades): Discover the differences between celestial navigation, dead reckoning, and radio transmission

**PLANES:**

- Pre-Flight Check (All grades): Every flight has a preflight inspection of the aircraft. Participate in one to learn more about a pilot's everyday life
- Glider build (All grades): Participate in this challenge to design and build a glider to accomplish different tasks

**PILOTS:**

- Pilot Training (Grades K-5) (15 min): Train your reflexes to better prepare yourself for flying a plane
- Living History (All grades): Speak to someone from the field of aviation – a pilot, mechanic, air traffic controller, veteran, or historical figure – and learn about history from those who lived it

**TECHNOLOGY:**

- Structural Integrity (All grades): Design and build engineering marvels to experiment with structural integrity



## BLEO LEARNING LAB: BEYOND LOW EARTH ORBIT

○ Cryptography (Grades 6-12): Discover the mathematics of secret messages by taking part in a top-secret mission through the museum

### **SUSTAINABILITY:**

○ Eco-Design Challenge (Grades 4-12): Think critically about aviation design and how different fuel sources might change the look of an aircraft, and what effect this might have on the environment

**\*\* MAKE IT A FULL MISSION WITH TWO OR MORE ACTIVITIES! \*\***

### **Space Museum:**

***(30 minutes each unless otherwise indicated):***

PARTICIPATE IN A MORE SPECIALIZED, UNIQUE TOUR BY CHOOSING A TOPIC!  
(TYPICAL TOURS FOLLOW THE TIMELINE OF THE SPACE RACE.)

- Early Spaceflight
- Propaganda and the Cold War
- International Cooperation
- Space Shuttle Era
- Satellites
- Unmanned Spaceflight
- Drones
- Restoration Department
- Hidden Figures

### **GROUND SYSTEM DEVELOPMENT & OPERATIONS**

○ Intro to Coding in Robotics (Grades 3-12) (1 hour): Lego Mindstorms robotics programming session

**\*\*LAB FEE OF \$2 PER STUDENT\*\***

### **ROCKETS**

○ Paper Rockets (All grades): Hands-on rocket making and launching

### **SPACESUITS**

○ Astronaut Training (Grades K-5): Go through physical, mental, and dexterity training in preparation for a mission

○ Living & Working in Space (All grades): Handle space artifacts as you learn how people live in space

○ Living History (All grades): Speak to someone from the field of aerospace – an engineer or historical figure – and learn about history from those who lived it

### **HABITATION MODULES**

○ Capsule Build (Grades 3-12): Take our Astronaut Survival Challenge and build a capsule that will keep your astronaut safe on their return to the earth's surface

○ Astrobiology Lab (Grades 4-12) (1 hour): Discover planets beyond our solar system and the possibilities for alien life

### **SUSTAINABILITY**

○ Space Farming (All grades): Learn about Terraforming by comparing soil and environmental conditions on Earth and another world. Determine what resources would be needed to farm beyond Earth

○ Space Food (Grades 3-12): Discover the fascinating and sometimes disgusting history of food in space, peek into the future of astronaut food, and test your own food engineering skills by making an edible water bottle

**\*\* MAKE IT A FULL MISSION WITH TWO OR MORE ACTIVITIES! \*\***



## BLEO LEARNING LAB: BEYOND LOW EARTH ORBIT

### **Outreach Program (September – February):**

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Call or email for more information about these programs: at (503) 434.4185 or [education@sprucegoose.org](mailto:education@sprucegoose.org)

- Living & Working in Space (All grade levels):** Take part in a dramatic mission to another world, as students build and launch paper rockets, handle artifacts from the space shuttle, and try on a spacesuit
- Learn to Fly (All grade levels):** Discover the patterns of flight as students take part in an engineering challenge to build a functioning glider and fly on our flight simulators
- Robotics (Grades 3-12):** Learn to code with Lego Mindstorms EV3, with students taking their team's robot through an obstacle course challenge