

# INSPIRE - ENGAGE - EDUCATE - EMPLOY

## The Next Generation of Explorers



## 2019 NATIONAL SPACE GRANT DIRECTOR'S MEETING

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1. **Status of 5<sup>th</sup> year extension**
2. **FY2019 Plan (\$44M)**
3. **Evaluation Results**
4. **OEPM**
5. **USIP**
6. **Mega PI Meeting/Reverse Site Visit**
7. **Upcoming Webinars**
8. **NIFs**



**Tomorrow's  
Conversation**



# FOOD FOR THOUGHT

Have a question?  
Submit it through:  
[jsc.cnf.io](http://jsc.cnf.io)



Please submit questions to:  
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Don't forget to vote responses up!



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# 2019 NATIONAL SPACE GRANT DIRECTOR'S MEETING



## NASA STEM Overview

**CoSTEM 5Y Plan**

**Forward to the Moon & Apollo's 50<sup>th</sup>**

**Communication Updates**

**Q&A**



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# VISION & MISSION

## Vision

We immerse the public in NASA's work, enhance STEM literacy, and inspire the next generation to explore.

## Mission

We engage the nation in NASA's mission

### FOCUS AREAS



Create **unique opportunities** for students and the public to contribute to NASA's work in exploration and discovery.



Build a **diverse future STEM workforce** by engaging students in authentic learning **experiences** with NASA's people, content and facilities.

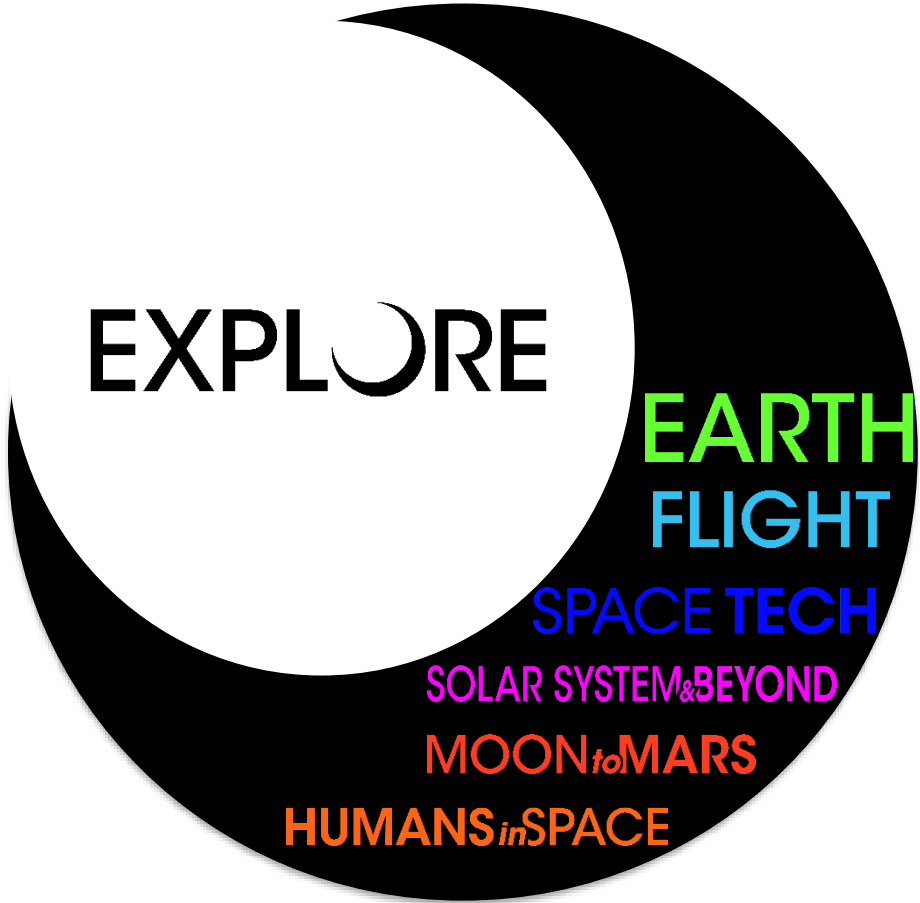


Strengthen **public understanding** by enabling **powerful connections** to NASA's mission and work.



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# MISSION-DRIVEN STRATEGIC ENGAGEMENT



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# NEW ARCHITECTURE ENABLING STUDENT OPPORTUNITIES & CONTRIBUTIONS

## NASA MISSION DIRECTORATE DRIVERS & REQUIREMENTS



Evidence-based strategies

Rigorous planning



Integrated operational model

## FOCUS AREAS

Create unique opportunities for students to contribute to NASA's work.

Build a diverse future STEM workforce by engaging students in authentic learning experiences.

Strengthen public understanding by enabling powerful connections to NASA's mission and work.

Strategic, balanced portfolio


NASA-unique learning experiences





Student contributions to NASA's work in action


SCALABILITY TO MAGNIFY NASA'S REACH AND IMPACT

Graduate 

Undergraduate 

High School 

Middle School 

K-Elementary 

## BENEFICIARIES OF NASA'S STEM ENGAGEMENT PORTFOLIO

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# CoSTEM & FC-STEM

## Committee on STEM Education (CoSTEM)

- Co-Chaired by NASA & NSF
  - Jim Bridenstine & France Cordova
- Coordinates STEM activities and programs
- Monitors overlap in federal STEM programs across agencies
- Develops strategic plan every 5 years

## Federal Coordination in STEM Education (FC-STEM)

- Co-Chaired by NASA & NSF
  - Mike Kincaid & Karen Marrongelle
- Development & coordination of 5Y plan
- Communicate priorities across agencies
- Develops implementation structure

## FC-STEM Membership



### STEM Education Advisory Panel:

Advises and evaluates CoSTEM's progress in meeting its progress. Established in 2018 by NASA, NSF, NOAA and Dept. of Education with 18 panel members selected in 2018.

# FEDERAL STEM EDUCATION 5 YEAR STRATEGIC PLAN

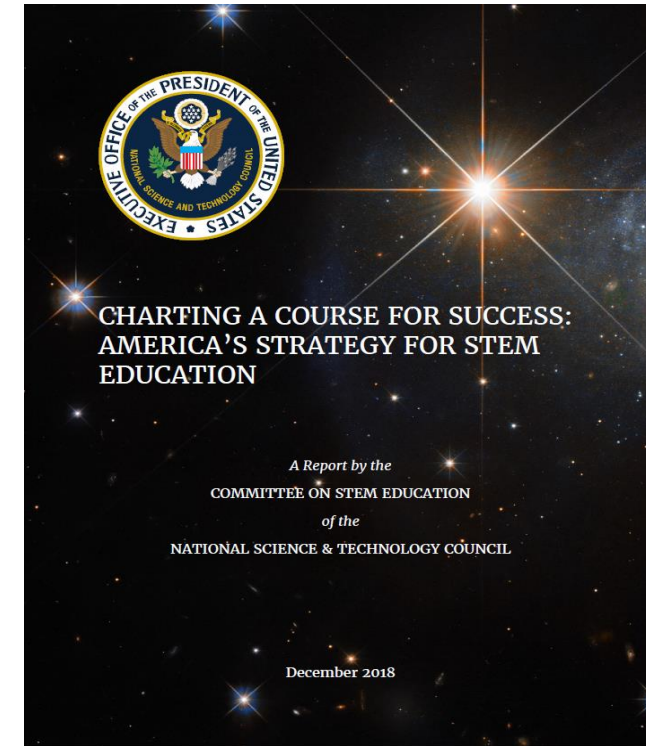
## Vision:

A future where all Americans will have lifelong access to high-quality STEM education.

The United States will be the global leader in STEM literacy, innovation, and employment.

## Aspirational Goals:

- Build Strong Foundations for STEM Literacy
- Increase Diversity, Equity, and Inclusion in STEM
- Prepare the STEM Workforce for the Future



## GOALS FOR AMERICAN STEM EDUCATION

★ Build Strong Foundations for STEM Literacy ★

★ Increase Diversity, Equity, and Inclusion in STEM ★

★ Prepare the STEM Workforce for the Future ★

Pathways	Objectives	DOC	DoD	DOE	DHS	DOI	DOL	DOS	DOT	ED	EPA	HHS	NASA	NSF	SI	USDA
Develop and Enrich Strategic Partnerships	Foster STEM Ecosystems that Unite Communities	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Increase Work-Based Learning and Training through Educator-Employer Partnerships	•	•	•	•	•	•			•	•	•	•	•	•	•
	Blend Successful Practices from Across the Learning Landscape	•	•	•	•		•	•		•	•			•	•	•
Engage Students where Disciplines Converge	Advance Innovation and Entrepreneurship Education	•	•	•				•		•	•	•		•		•
	Make Mathematics a Magnet	•	•							•				•		•
	Encourage Transdisciplinary Learning	•	•	•	•	•		•		•	•	•	•	•	•	•
Build Computational Literacy	Promote Digital Literacy and Cyber Safety	•	•		•			•		•		•		•		•
	Make Computational Thinking An Integral Element of All Education	•	•	•	•	•				•		•		•	•	•
	Expand Digital Platforms for Teaching and Learning	•		•	•			•		•				•	•	•

# NASA'S CHOSEN OBJECTIVES

1. Foster STEM ecosystems that unite communities
2. Increase work-based learning and training through educator-employer partnerships
3. Encourage transdisciplinary learning

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# APOLLO'S 50<sup>TH</sup> & NASA'S SPACE STEM FORUM

50<sup>th</sup> Anniversary of First Human Lunar Landing **July 2019**

**Space STEM Forum** enables collaboration to leverage STEM engagement efforts with industry/professional organizations.

The screenshot shows the NASA Space STEM Forum website. At the top left is the NASA logo and the text "Space STEM Forum". At the top right is the "APOLLO 50<sup>th</sup> NEXT GIANT LEAP" logo with "Sign up" and "Log in" links. A navigation menu on the left includes: Home, Forum Information, Small Steps to Giant Leaps, Events and Exhibits (highlighted with a yellow arrow), Resources, NASA Home, and Museum Alliance. The main banner features a large image of the Moon and Mars with the text "EXPLORE MOON to MARS". Below the banner is a section titled "Celebrating the Past, Looking on to the Future" with a paragraph: "NASA will lead an innovative and sustainable program of exploration with commercial and international partners to enable human expansion across the solar system and to bring back to Earth new knowledge and opportunities." Below this are four columns: "FORUM INFORMATION" (with a photo of a girl reading a newspaper), "SMALL STEPS TO GIANT LEAPS" (with a photo of a satellite), "MAP OF EVENTS AND EXHIBITS" (with a photo of a map of the solar system, highlighted with a yellow arrow), and "RESOURCES" (with a photo of an astronaut on the Moon). A circular logo at the bottom left reads "BACK TO THE MOON APOLLO 50<sup>th</sup> NEXT GIANT LEAP ON TO MARS".

<https://spacestem.nasa.gov/>



# EVENTS & EXHIBITS: INTERACTIVE MAP

- Interactive map, searchable by terms or zip codes
- Details can be listed or can switch to Calendar view
- Zooms in map capability
- Events *and* exhibits
- Apollo *and* Moon to Mars

The screenshot displays a Google Maps interface for the United States. The map is overlaid with various markers: blue squares representing Apollo missions and orange squares representing Mars missions. Star-shaped markers indicate exhibit locations. A legend at the bottom left identifies these symbols. Search filters are visible at the bottom, including a distance filter set to 100 miles and a text input for event names. A 'View Calendar' button is located on the right side of the map interface.





# EVENTS & EXHIBITS: SOCIAL MEDIA CAPABILITIES

Events and Exhibits  
STEM Engagement  
NASA Home  
Museum Alliance



Date: July 13 - July 20 2019

Time: 10 am - 5 pm

Website: [Apolopalooza 2019](#)

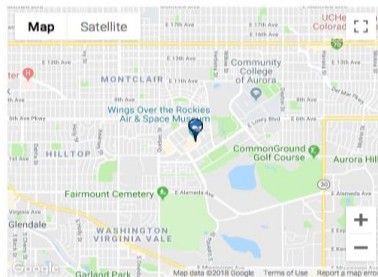
Description: Enjoy a week-long celebration at one of the largest space festivals in the Rocky Mountain West.

Wings Over the Rockies Air & Space Museum in Denver, Colorado will be home to incredible activities, exhibits, seminars and more all dedicated to celebrating the first Apollo moon landing and showcasing the latest in space exploration and technology. Featuring an Apollo Astronaut, industry leading companies, educational STEM activities, world class speakers and exclusive industry access, Apolopalooza will be OUT OF THIS WORLD!

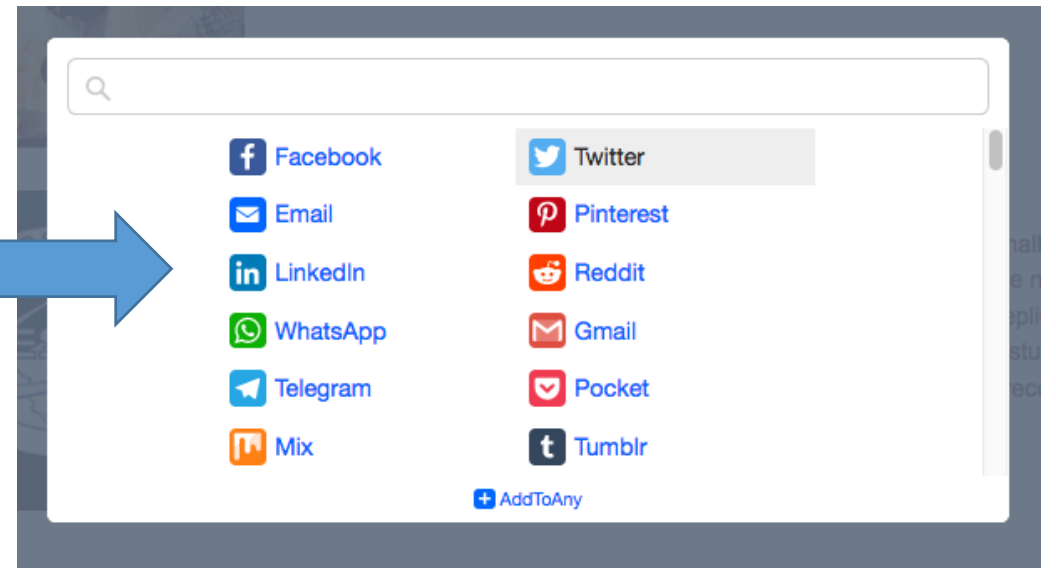
Category: Event

Mission: Apollo Program

Location: Wings Over the Rockies Air and Space Museum  
7711 E Academy Blvd  
Denver, Colorado 80230  
United States





*Search for events and share them with a friend*



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# EVENTS & EXHIBITS: CALENDAR FEATURES


Space STEM Forum


- Home
- Program Information
- Small Steps to Giant Leaps
- Events and Exhibits
- STEM Engagement
- NASA Home
- Museum Alliance











## Events and Exhibits


◀ July 2019 ▶

**Legend:** 📅 Event 📍 Exhibit 🚀 Apollo 🌌 Mars View Map


Month:  Year:  Event name contains:

Show:  Mission:  Submit Reset all Filters



Image	Organization	Title	Date	Location
	Wings Over the Rockies Air and Space Museum	<a href="#">Apollopalooza 2019</a>	NA	Denver, Colorado
	Armstrong Air & Space Museum	<a href="#">Summer Moon Festival</a>	NA	Wapakoneta, Ohio
	Columbia Memorial Space Center	<a href="#">Apollo 11 Splashdown Parade</a>	NA	Downey, California
	Columbia Memorial Space Center	<a href="#">5k Moon Walk</a>	NA	Downey, California
	Museum of Flight	<a href="#">National Moon Day and Night at a Museum</a>	NA	Seattle, Washington
	Columbia Memorial Space Center	<a href="#">Recreating the Birthplace of Apollo</a>	NA	Downey, California
	U.S. Space & Rocket Center	<a href="#">National Moon Day and Night at a Museum</a>	NA	Huntsville, Alabama
	Children's Museum of Indianapolis	<a href="#">National Moon Day and Night at a Museum</a>	NA	Indianapolis, Indiana
	Saint Louis Science Center	<a href="#">National Moon Day and Night at a Museum</a>	NA	St. Louis, Missouri
	The Discovery Museum	<a href="#">National Moon Day and Night at a Museum</a>	NA	Bridgeport, Connecticut



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Page Editor: Annika Chapman  
Webmaster: David Martin  
CL#18-4956


Space STEM Forum


◀ July 2019 ▶








## Events and Exhibits

**Legend:** 📅 Event 📍 Exhibit 🚀 Apollo 🌌 Mars View Map

Month:  Year:


Event name contains:

Show:  Mission:  Submit Reset all Filters

Title	Date	Location
 <a href="#">Cub Scout Out of this World STEM Nova</a>	1-12-19	Wallops Island, Virginia
 <a href="#">Astronomy Days 2019</a>	NA	Raleigh, North Carolina
 <a href="#">Apollo 11 Splashdown Parade</a>	7-24-19	Downey, California
 <a href="#">Apollopalooza 2019</a>	7-13-19	Denver, Colorado
 <a href="#">National Moon Day and Night at a Museum</a>	7-20-19	Seattle, Washington
 <a href="#">Facing Mars</a>	NA	Des Moines, Iowa
 <a href="#">Apollo 11 Mission Re-enactments</a>	NA	Downey, California

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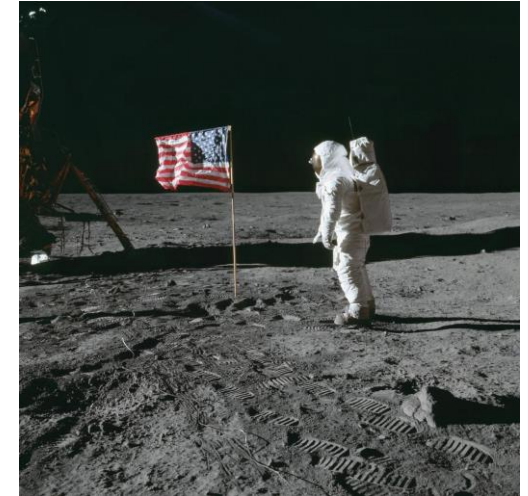
# NATIONAL MOON DAY & NIGHT AT A MUSEUM

**July 19 & 20:** Nationwide celebration and broadcast of events at museums commemorating 50<sup>th</sup> anniversary of Apollo 11

Over 30 organizations have been planning celebrations – expect **over a hundred museums** to host events throughout the country

Foundation for Museum Events:

- Anchor/host museums
- Curated resources for events
- Connect museum activities together
- Best practices compilation



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# GUINNESS RECORD ROCKET LAUNCH: US SPACE & ROCKET CENTER

**Attempt Date:** July 16, 2019

## **Goals:**

- Most model rockets launched simultaneously (>5000)
- Most rockets of any kind launched in 24 hours



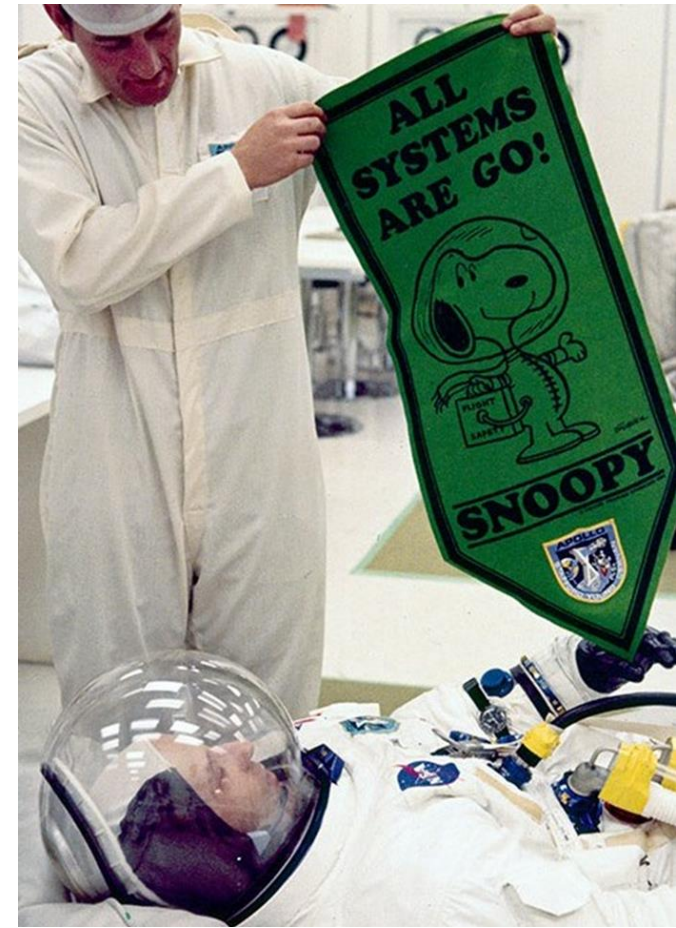
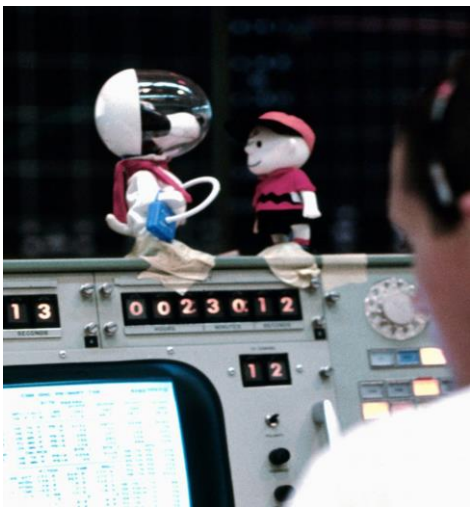
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# NASA & PEANUTS WORLDWIDE – 50 YEARS & COUNTING...

*A collaboration to celebrate Apollo's 50<sup>th</sup> and deep space learning activities  
Celebrating Apollo 10 mission and the lunar module, "Snoopy" and  
command module, "Charlie Brown".*



- 1968: Silver Snoopy Program to **honor** NASA employees and contractors
- Began multi-year partnership celebrating 50<sup>th</sup> lunar landing anniversary and **introduce new content** and **educational engagement focusing** on America's **next flight test for deep space exploration.**





# NASA & PEANUTS WORLDWIDE: STEM CURRICULUM

**FREE STEM curriculum activities for grade levels K-2, 3-5 designed to instill enthusiasm for space exploration and interest in accomplishments of past space missions, developed under input from NASA educators**

- **Activity 1:** Students are introduced to the Apollo 10 mission and learn the fundamentals of the engineering design process.
- **Activity 2:** Students learn that NASA is developing a new spacecraft, Orion, that lands with parachutes.
- **Activity 3:** Students will learn about NASA's plans to send astronauts to Mars, and what life on Mars will be like for them.

**Visit: [www.ymiclassroom.com/peanuts](http://www.ymiclassroom.com/peanuts)**





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# COLLEGE BROADCAST

**Target Date:** April 2019

**Audience:** College Students

**Time:** 60 – 90 Minutes



**Partners:** American Institute for Aeronautics and Astronautics (AIAA), Space Grant, Students for the Exploration and Development of Space (SEDS)

## Objectives:

1. NASA's approach of going **Forward to the Moon**
2. Hear from **leadership** and **young professionals** and get look at **what it is like to work at NASA**
3. Generally **inspire** and **engage** students to **pursue STEM careers**

## Outcomes:

1. Learn from NASA leadership and early career folks who tell them, **"This is what I do"** and eventually **pursue a STEM career**
2. Learn more about how to **engage in NASA's mission** and **Go Forward to the Moon**



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Provides users direct access to the search tool. The collection of educational resources will include opportunities (timely events).  
**New** keyword autocomplete functionality (suggested results).

### Search Educational Resources and Opportunities

By topics for: **Educators** ▼ or **Students** ▼

Drop down menu introduces a broad range of topics or categories based on audience.

### #TeacherOnBoard

#### A Year of Education on Station

This year, NASA is celebrating a Year of Education on the Station as astronauts and former teachers **Joe Acaba** and **Ricky Arnold** make the International Space Station their home. While on board, they share their love of STEM and their passion for teaching.

Slider to highlight key events and/or activities. Can be self-guided or auto-rotate.

### Explore NASA Education Websites

#### For Educators

- Grades K-4
- Grades 5-8
- Grades 9-12
- Higher Education

#### For Students

- Grades K-4
- Grades 5-8
- Grades 9-12
- Higher Education

#### About STEM Engagement

- Partnerships & Collaboration
- Leadership
- Locations
- Latest News Releases

Slider/scroll (arrows) to highlight major content areas/groupings. Will need to determine maximum number to show for each (4+)



# NASA Education



## Search Educational Resources and Opportunities

### Search Results for: "Contests and Things to Do"

Results (57)

Previous **1** 2 3 ... 11 12 Next

[View Results in Calendar](#)

#### Filter By:

- For Educators
- For Students

#### ▼ Opportunity

- Internships and Fellowships
- Lectures and Webcasts
- Competitions
- Workshops
- Contests and Things to Do
- Pre-Service Educators
- Other Opportunities

#### ▼ Select Date Range

#### ▼ Select Availability

- Nationally
- Internationally
- ▶  By State

▶ Grade Level

▶ Subject

▶ Type



#### [NASA's Wallops Flight Facility Visitor Center Programs](#)

**Audience:** Public

**Event Dates:** Every Wednesday, Friday and Saturday Through Aug. 31

**Category:** Museum Events and Exhibits, Other Opportunities

The NASA Visitor Center at NASA's Wallops Flight Facility in Virginia is offering free educational programs for visitors of all ages. Programs are scheduled each Wednesday, Friday and Saturday throughout July and August. Programs include solar system tours, "Science on the Sphere" presentations, hands-on STEAM Lab, and rocketry. Scout troops, home school and youth groups are encouraged to attend. Please call ahead for group larger than eight people.



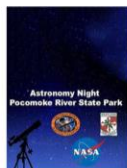
#### [Mars Day! 2018 at the Smithsonian's National Air and Space Museum](#)

**Audience:** Open to All

**Event Date:** July 20, 2018, at 10 a.m. - 3 p.m. EDT

**Category:** Museum Events and Exhibits

Visit the Smithsonian's National Air and Space Museum in Washington, D.C., to celebrate "Mars Day! 2018." This annual event celebrates the Red Planet with a variety of educational and fun family activities. Visitors may talk to scientists conducting Mars research and learn about current and future missions.



#### [Astronomy Night at Pocomoke River State Park](#)

**Audience:** Public

**Event Date:** July 20 at 8-10 p.m. EDT

**Category:** Other Opportunities

Join the NASA Visitor Center at NASA's Wallops Flight Facility, the Delmarva Space Sciences Foundation and Pocomoke River State Park for an evening of astronomy. The event will begin at 8 p.m. EDT with an Astronomy 101 presentation, followed by stargazing with high-powered telescopes. The event is free and open to the public. No registration is required. Attendees are encouraged to bring binoculars.



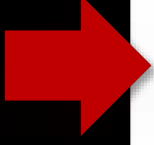
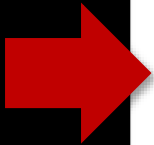
#### [Mars InSight Roadshow at the San Diego Air & Space Museum](#)

**Audience:** Open to All

**Event Dates:** Aug. 3-5, 2018

**Category:** Museum Events and Exhibits

Scientists and engineers working on NASA's InSight Mission are bringing the Mars InSight Roadshow to the San Diego Air & Space Museum



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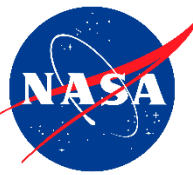
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**THANK YOU!**