



NAC STEM Engagement Committee Meeting

OPEN TO THE PUBLIC

July 20, 2023

NASA STEM



A high-resolution, blue-tinted image of a celestial body, likely the Moon, showing a dense field of impact craters of various sizes. The lighting creates strong shadows, emphasizing the rugged topography. The word "Welcome!" is superimposed in the lower right quadrant in a large, white, sans-serif font.

Welcome!

Agenda



Welcome and Introduction

STEM Engagement Priorities

Broadening Student Participation

Discussion

Break

Partnerships

Discussion

Break

Discussion, Findings and
Recommendations



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The Next Generation of Explorers



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NAC STEM Engagement Committee Members



Kristin De Vivo
Executive Director, Lucas
Education Research



Dan Dumbacher
Executive Director, American Institute
of Aeronautics and Astronautics



Norman Fortenberry
Former Executive Director,
ASEE



Jamarius Reid
Former NASA Intern and Student
Government Association President,
Embry-Riddle Aeronautics University



Darryl Williams, PhD
Senior Vice President of Science
and Education, The Franklin
Institute

New Members



Julia Ross, PhD
Dean, Virginia Tech's College of Engineering



Erika Shugart, PhD
Executive Director, National Science Teacher
Association



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Dan Dumbacher

Chair

NAC STEM Engagement Committee



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K-12 Efforts



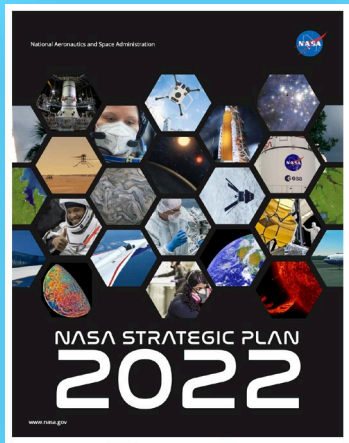
Broadening Participation



Partnerships

NASA Strategic Objective 4.3

Build the next generation of explorers.
Engage students to build a diverse future STEM workforce.



NASA STEM Engagement Goals:

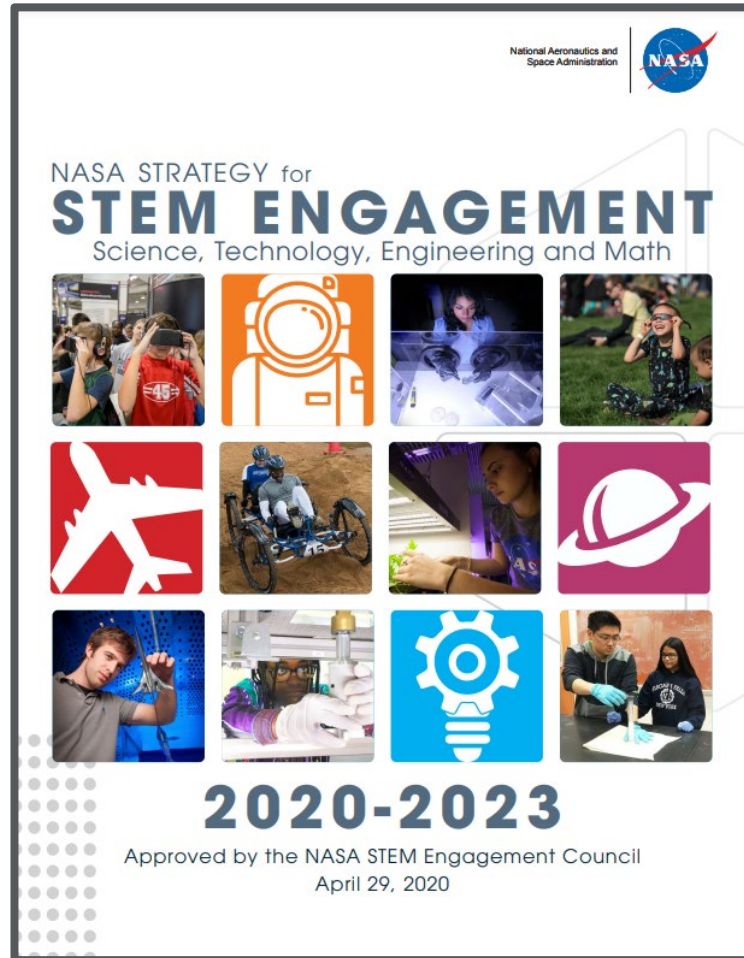
1. Create unique opportunities for a diverse set of students to contribute to NASA's work in exploration and discovery.
2. Build a diverse future STEM workforce by engaging students in authentic learning experiences with NASA people, content, and facilities.
3. Attract diverse groups of students to STEM through learning opportunities that spark interest and provide connections to NASA's mission and work.



Focus Areas:

- **Expand NASA contributions in engaging K-12 students** in STEM pathways.
- **Broaden student participation** to increase diversity, equity, and inclusion in STEM through NASA opportunities and activities.
- **Build strategic partnerships and networks**, expanding NASA's STEM ecosystem to magnify reach and impact.

Strategy for STEM Engagement



- Current strategy will end in Dec. 2023
- Core elements of the strategy have been incorporated into NASA's 2022 Strategic Plan:
 - Strategic Objective 4.3
- **STEM Engagement Council currently developing a Strategic Implementation Plan**

Strategic Goal 4

ADVANCE 

Strategic Objective 4.3

Build the next generation of explorers.

Engage students to build a diverse future STEM workforce.



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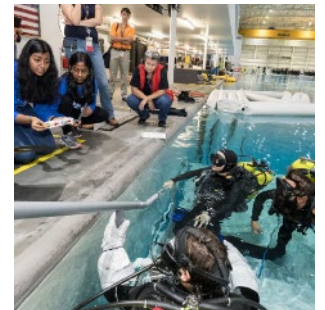


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Strategic Implementation Plan



- **Inclusive** of NASA STEM Engagement efforts within Mission Directorates, Centers, OSTEM, and other STEM Engagement Council member organizations
- **Actionable** and provides associated metrics/measures
 - Clarifies who is involved/responsible for certain actions
- **Useful** to an internal NASA audience, but also shared with the public to provide insights on our direction and provide transparency to stakeholders



Engaging Students in Artemis



Join
Artemis
Website



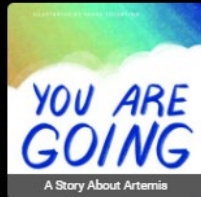
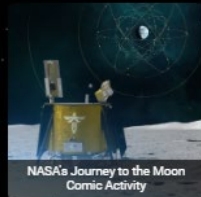
Artemis Student Challenges



Explore Other
Challenges and
Opportunities

- NASA Internships
- NASA Community College Aerospace Scholars
- Search NASA STEM Resources and Opportunities

Kids and Families Hands-on Activities



Teach Artemis



ARTEMIS

STEM Learning Pathway



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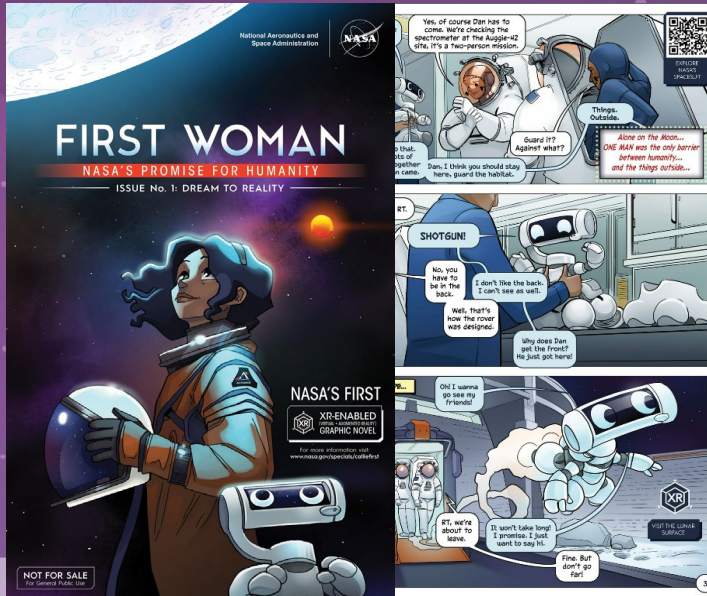


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NASA STEM Artemis Camp Guides



First Woman Graphic Novel



Dream to Reality
follows Callie's trailblazing path
as the first woman on the Moon.

Educator Guides - Lesson Plans/Activities



Audience: Formal & Informal Educators
Grade Levels: 5-8
Subjects: Engineering design,
Mathematics, Physical Science, and Technology



NASA and Microsoft: Minecraft Partnership

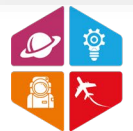


Minecraft (owned by Microsoft) is one of the world's most popular video games

- **100M** users in commercial product
- **45M** in education product

Space Act Agreement partnership uses the Artemis Mission to introduce students to STEM concepts and careers

- New Minecraft worlds introduce students to:
 - NASA missions and science
 - a variety of NASA STEM careers
 - coding skills
 - engineering and design thinking skills
- Products will be translated into 29 languages



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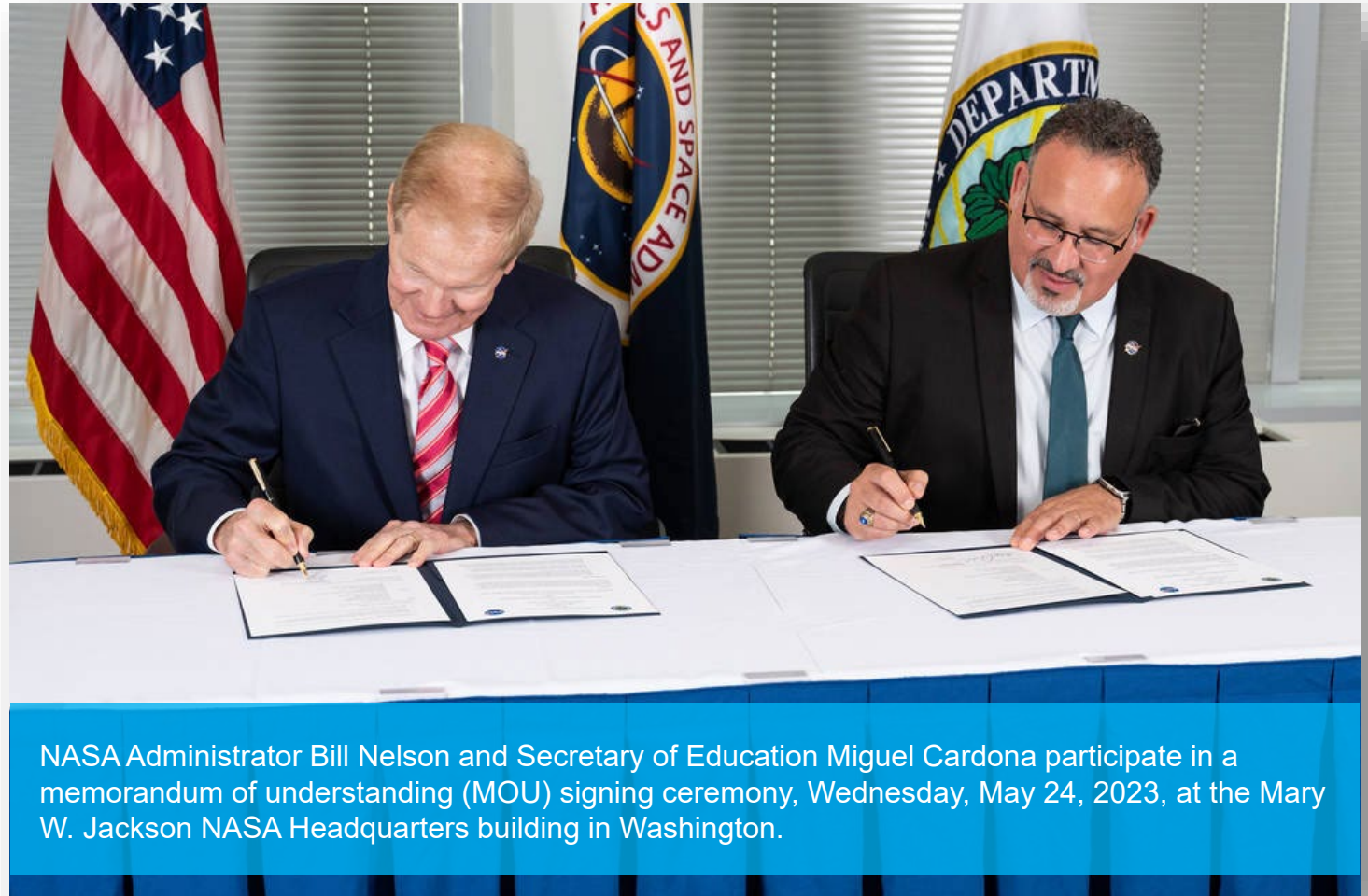
Department of Education MOU



Signed May 24, 2023

"Today's signing, with the support of Vice President Harris and the National Space Council, continues NASA's collaborative efforts with the Department of Education to amplify the excitement of space to all students across our country, allowing every young person to know they are a part of the Artemis Generation – today and for decades to come." – *NASA Administrator Bill Nelson*

"I am excited for this partnership with NASA that will inspire and prepare young people from all backgrounds to become our next generation of leaders in STEM fields and to propel our nation and our workforce into the future." – *U.S. Secretary of Education Miguel Cardona*



NASA Administrator Bill Nelson and Secretary of Education Miguel Cardona participate in a memorandum of understanding (MOU) signing ceremony, Wednesday, May 24, 2023, at the Mary W. Jackson NASA Headquarters building in Washington.



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NASA STEM Communications



Coming Up:

- **July 27:** National Intern Day (week-long campaign)
- **August 14-25:** NASA Back to School (two-week campaign)
- **September 24-28:** HBCU Week
- **September 21:** OSIRIS-Rex Sample Capsule Returns to Earth
- **October 14:** Annular solar eclipse
- **November 8:** National STEM Day
- **December 4-10:** Computer Science Week
- **Last week of each month:** new episodes of Surprisingly STEM career series on YouTube

Follow along with NASA STEM on social media



@NASASTEM



/nasa/nasa-stem/



@NASASTEM



NASA STEM

SURPRISINGLY STEM



Scan to watch the
latest Surprisingly
STEM episode!



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Resources for Students and Educators



NASA invests in our nation's future workforce by providing unique STEM opportunities to students, educators, and institutions. Utilizing NASA experts, the agency connects students to exciting NASA missions through dynamic science, technology, engineering, and mathematics content and experiences.

The Resources for Educators and Students flyer contains a collection of links to connect you to a wide array of those resources.

Scan the QR Code to access the NASA STEM resources flyer:



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Agency DEIA/OSTEM – Update since September 2022



New Executive Order – February 2023

- Further Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (EO 14091)
- Requires each Agency to develop a new Equity Action Plan anchoring work in areas described in the EO
 - Educational Equity: Pursue educational equity so that our Nation's schools put every student on a path to success
 - STEM Engagement work will be reflected in this plan; awaiting feedback from OMB about draft actions

Redefined Agency-Level Organizational Approach to Equity and DEIA

- **External Equity Team** – focus on actions that impact external stakeholders, membership across organizations that focus on external stakeholders
 - Our Broadening Student Participation work falls under this umbrella
- **Internal DEIA Team** – focus on actions internal to NASA as an employer, led by ODEO working with Mission Directorates and Centers
 - STEM Engagement Internships fall under this umbrella



Broadening Student Participation



Stakeholder Events contributing to the evidence base included:

- Equity Action Plan K-12 Stakeholder Town Hall in September 2022
 - Follow-on to K-12 Stakeholder Needs Assessment
- Broadening Student Participation session at OSTEM Better Together Conference in Aug/Sept 2022
 - Identify Barriers and Solutions to BSP in higher ed, K-12, informal
- Overcoming Barriers to Broadening Student Participation Listening Session in June 2023
 - Enable stakeholders to learn from one another about best practices and successful strategies

STEM Engagement Council Working Group on Broadening Participation in Higher Ed Challenges and Competitions

- Developed checklists focusing on general strategies, and strategies for women, Tribal Colleges and Universities, and Historically Black Colleges and Universities
- Internal Broadening Student Participation website under development



Measuring Progress



Learning Question 1

How can NASA STEM Engagement develop cross-project metrics that support internal and external contributions to STEM Engagement goals and objectives?

Learning Question 2

How do NASA Internships broadened participation of underrepresented and underserved students to advance equity and build a diverse future STEM workforce?

Learning Question 3

How can NASA attract K-12 students, especially those underrepresented and underserved, to STEM?

Completed Evidence-Building Activities

- NASA Internship Outcome Assessment Phase I and II
- Workforce and Career Readiness Evaluation Study
- K-12 Stakeholder Needs Assessment and Gap Analysis
- MUREP Program-Level Outcome Assessment Pilot

In-Progress Evidence-Building Activities

- Internship Process Evaluation
- Internships Retrospective Evaluation
- MUREP Program-Level Outcome Assessment
- Space Grant Program-Level Evaluation
- K-12 Student Outcome Assessment
- Evidence-Based Program Design Framework



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MUREP Outcome Evaluation



FY 2020

Phase I Program-Level Evaluation Study

- Focus was on **Efficiency and Effectiveness** of MUREP Management & Operations, **Achieving NASA STEM Engagement & MUREP Priorities, Goals, & Objectives**, Identify **Promising Practices & Challenges, Sustainability & Partnerships**
- Help prioritize MUREP investments, share promising practices, influence activity design, and improve sustainability and lower barriers to entry
- Included 10 Activities.

Literature Review & Benchmarking Study: **Solicitations**

FY 2021

Phase II Program-Level Evaluation Study

- Focus was on **Student Engagement, Partnerships, & Competitiveness**
- Help prioritize MUREP investments, share promising practices, influence activity design, and improve sustainability and lower barriers to entry
- Included 11 Activities
- **Create a Theory of Action and Logic Model.**

FY 2022

MUREP Outcome Assessment Framework

- **Development of outcome assessment strategy**
- Provide tools and evidence that that can be used to better understand what achievements are being realized by MUREP investments, and
- Prioritize MUREP investments

FY 2023

MUREP Outcome Assessment Study

- **Execute Strategy**
- Assess MUREP outcomes: **Student Engagement & Strategic Partnerships**



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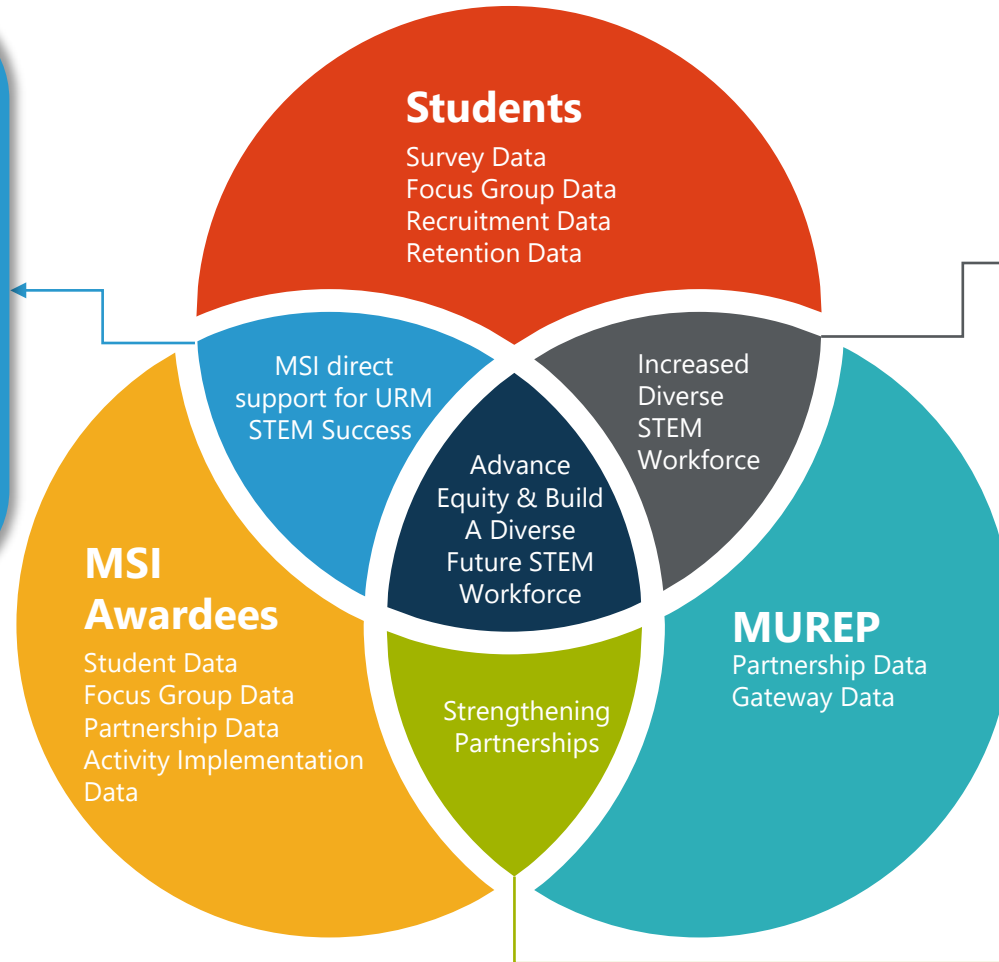
OUTCOME ASSESSMENT FRAMEWORK

How and to what extent are MUREP Funded Activities:

- **recruiting** student participants?
- **retaining student participants?**
- supporting **student conversion to the STEM workforce?**

Has participating in a MUREP Funded Activity enhanced student:

- **STEM identity?**
- **sense of belonging?**



How and to what extent are **strategic partnerships** helping to:

- **broaden participation** of students from historically underrepresented and underserved communities?
- **increase the STEM workforce?**

How and to what extent are strategic partnerships helping to:

- **broaden participation of Minority Serving Institutions?**
- **broaden participation** of students from historically underrepresented and underserved communities?
- **increase the STEM workforce?**

Minority University Research and Education Project (MUREP) Update



NASA STEM



FY23 MUREP Solicitations





FY23 Snapshot

New MUREP Solicitations



MUREP Data Science, Equity, Access and Priority in Research (DEAP) - February 2023

~\$500k per award / 3-Year POP

8 Awards

8 HBCUs



MUREP Precollege Summer Institute (MUREP PSI) - March 2023

~\$65k per award / 3-Year POP

8 Awards

8 HBCUs / PBIs

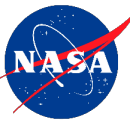


MUREP Women's Colleges and Universities (WCU) - June 2023

~\$250k per award / 3- 5-Year POP

7 Awards

1 HSI / 6 WCUs



FY23 Snapshot

Forthcoming MUREP Solicitations



MUREP Curriculum Awards (MCA) -
Tentative July 2023

~\$400k per award / 3-Year POP

~4-6 Awards



MUREP Space Technology Artemis
Research (MSTAR) – Tentative July 2023

\$300k per award / 3-Year POP

~10 awards

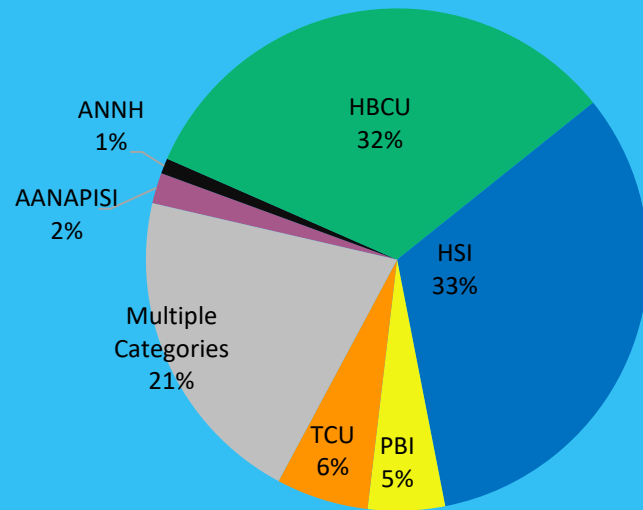


MUREP Partnerships Learning Annual
Notification (MPLAN) – Tentative July 2023

\$50K per award / 6-Month POP

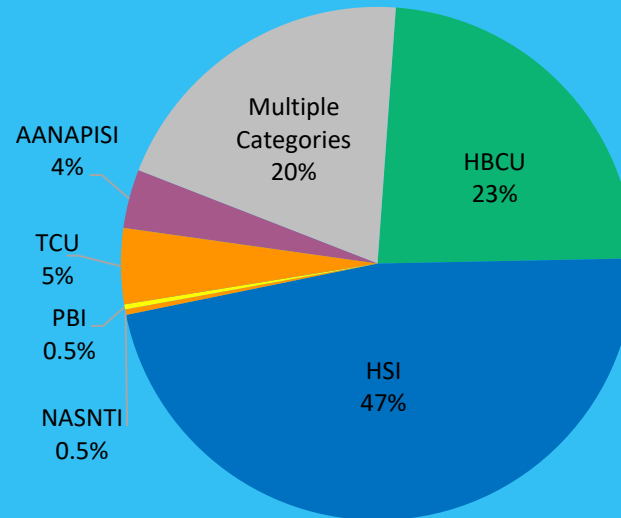
~18 Awards

MUREP Obligations to MSIs (FY21 – FY23)



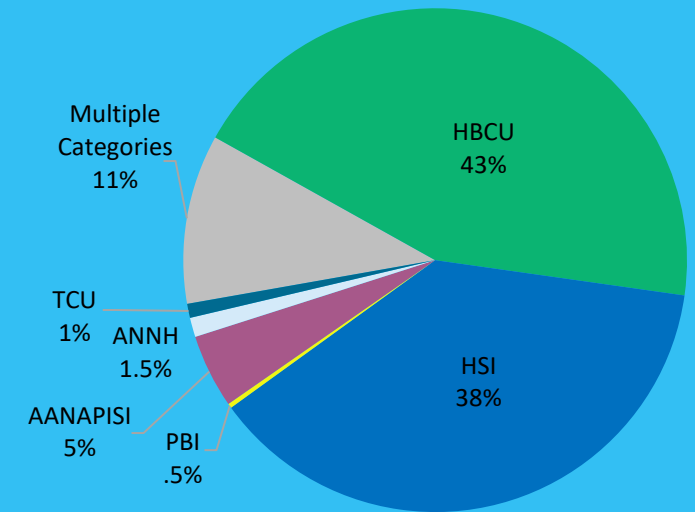
FY21

Total: \$24M



FY22

Total: \$21M



FY23

Total: \$20M *

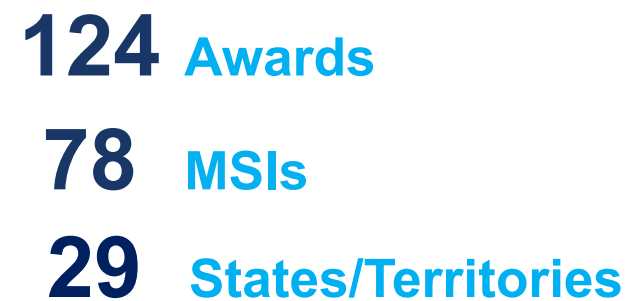
*Preliminary data includes continuing awards;
does not include pending awards.



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**Data includes no cost extensions,
new, and continuing awards



Improving Dissemination Efforts to Reach MSIs



MUREP MSI Exchange



The MSI Exchange is a public website and searchable database, to present capabilities found at HBCUs / MSIs that are relevant to NASA's Mission. NASA, other federal agencies, industry and academia can search STEM profiles and capability statements to identify Institutions for partnership opportunities.

19 Technical Assistance Workshops
126 Searchable Capability Statements
33 States & Territories

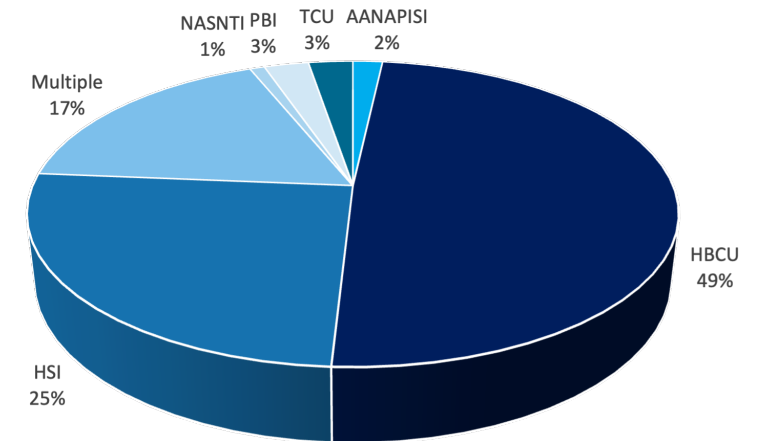


MSI Exchange

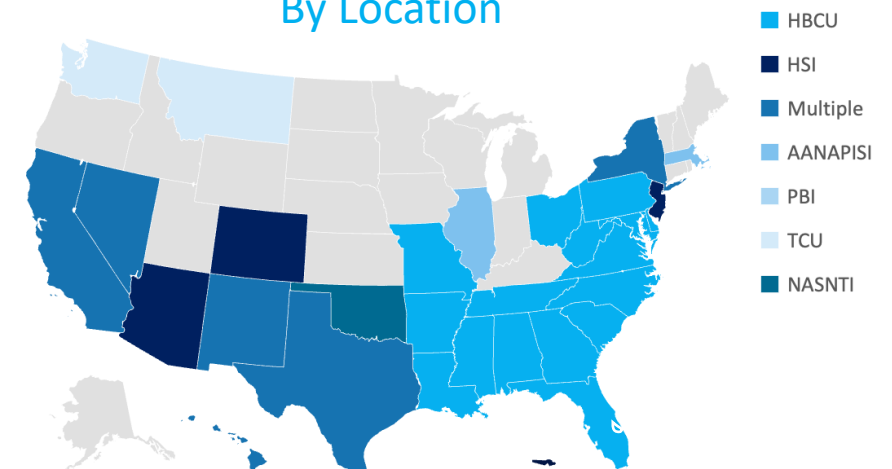


Capability Statements in the MSI Exchange

By MSI Type



By Location



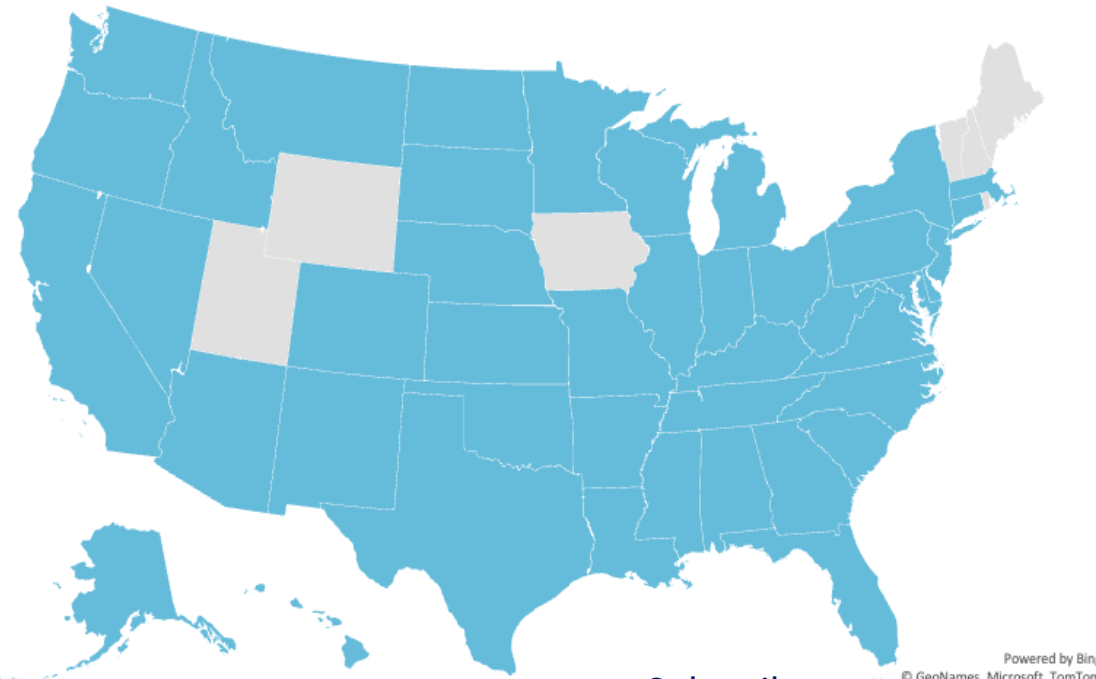
**Data reflects FY22 results

MSI Engagement Newsletter



By the end of fiscal year 2022, approximately 1,900 representatives from 490 MSIs subscribed to receive MUREP's bi-weekly MSI Engagement Newsletter for NASA opportunities.

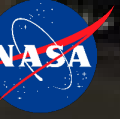
Newsletter Reach



Powered by Bing
© GeoNames, Microsoft, TomTom

Subscribe





MUREP Partnerships and Sustainability

MUREP Leveraging Partnerships to Drive Participation



Goal - Create and leverage internal and external strategic partnerships that build capacity at MSIs

Key Partners

Internal:

NASA Mission Directorates:

- Aeronautics Research
- Exploration Systems Development
- Science
- Space Operations
- Space Technology

Mission Support Offices:



SBIR • STTR
America's Seed Fund™
POWERED BY NASA



OSBP
OFFICE OF SMALL BUSINESS PROGRAMS

White House Initiatives:



White House Initiative on Advancing Educational Equity, Excellence, and Economic Opportunity for Hispanics



White House Initiative on Advancing Educational Equity, Excellence, and Economic Opportunity through Historically Black Colleges and Universities

Federal Agencies:



Minority Conference Organizations:



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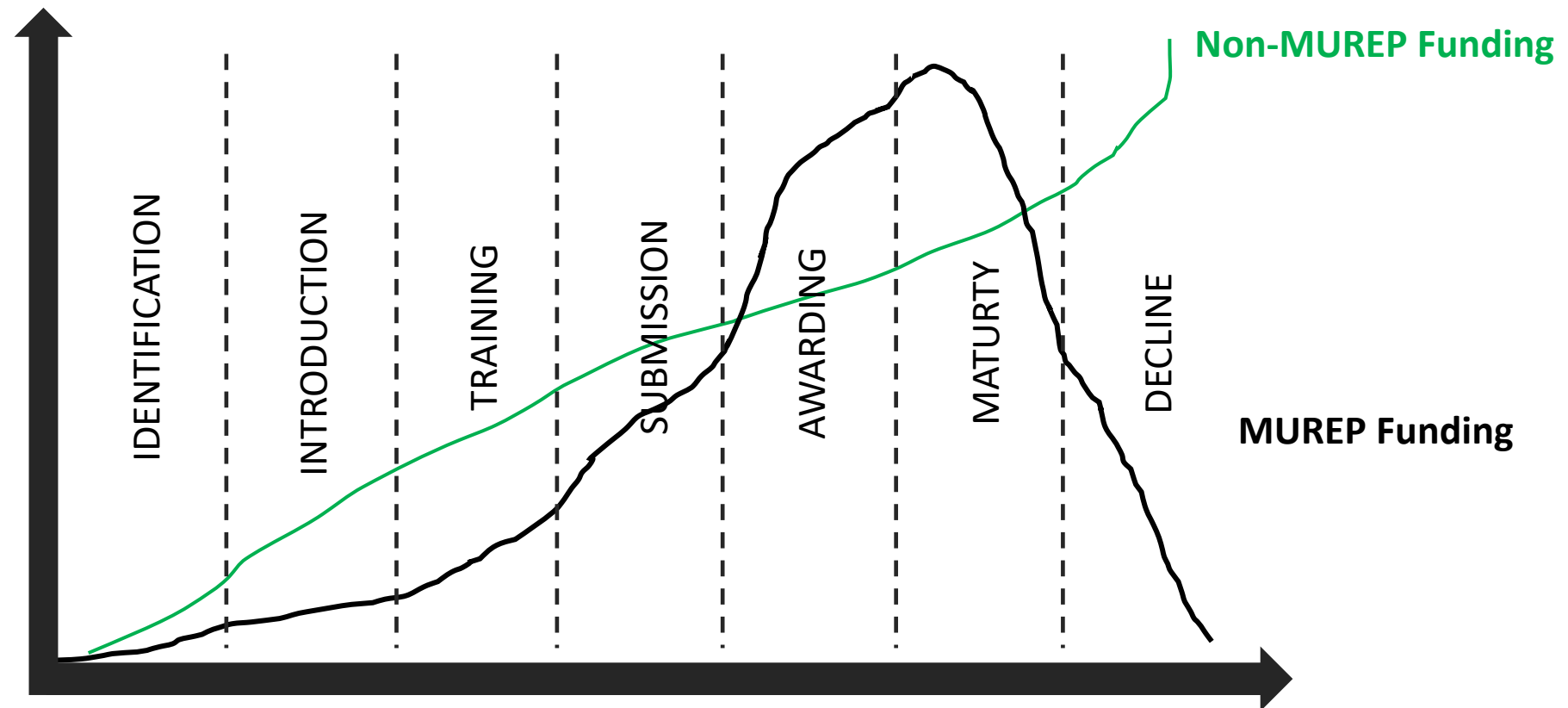


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MUREP Partnerships Continuum



MSI Sustainability Life Cycle



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NASA HBCU / MSI Technology Infusion Road Tour



MUREP hosted the HBCU / MSI Technology Infusion Road Tour, a semi-annual hybrid event in partnership with NASA's Office of Procurement, Office of Small Business Programs, and the Small Business Innovation Research and Small Business Technology Transfer (SBIR / STTR) program.

126 HBCUs / MSIs
23 States & Territories

Campus Hosts:

University of Chicago Illinois, April 2022
Texas Southern University, September 2022
University of Central Florida, April 2023
Clark Atlanta University, October 2023



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MUREP Partnerships Learning Annual Notification (MPLAN)



A new way for MSIs to collaborate with NASA





Targeted Efforts for HBCUs and PBIs



Advancing NASA's Goal to Increase Funding to HBCUs - EO 14041

NASA has established strategic goals and metrics in support of White House Executive Order 14041 to increase the capacity of HBCUs to compete effectively for funding and increase their participation in programs and initiatives that contribute substantially to NASA's mission and national priorities.

Goal 1: Increase the capacity of HBCUs to compete for and receive NASA funding and other financial resources.

Goal 2: Increase the amount of funds awarded to HBCUs through competitive grants, contracts, and cooperative agreements.

Goal 3: Increase the recruitment/applicant pool of HBCU students and graduates for STEM engagement & future workforce opportunities.

Goal 4: Increase the representation/selection of HBCU students in NASA-sponsored programs.

Federal Agency Name: National Aeronautics and Space Administration (NASA)

Plan Prepared By:
Torry Johnson, NASA Liaison (Acting)

Email Address:
torry.johnson@nasa.gov

Office:
NASA Office of STEM Engagement

Submission Date:
Friday, January 28, 2022

(1) Identify programs and initiatives, at your agency, in which an HBCU may participate.

The National Aeronautics and Space Administration (NASA) provides the following programs and funding opportunities for Institutions of Higher Education (IHEs) including Historically Black Colleges and Universities (HBCUs) and Minority Serving Institutions (MSIs).

1.1 Grants and Cooperative Agreements

To ensure wide dissemination, NASA research announcements (NRAs) and funding opportunities for grants and cooperative agreements will be announced via the NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES) and grants.gov. The NSPIRES system is NASA's official resource for academia, industry, nonprofits, and other organizations to submit notices of intent, participate in the peer review process, and manage proposals in response to NASA-sponsored research and education opportunities. NASA will request proposals for basic and applied science and technology research and Science, Technology, Engineering, and Mathematics (STEM) education in support of the NASA mission directorates and other functional offices. For more information, visit <https://nspires.nasa.gov> and <https://www.grants.gov>.

Examples of NASA grant and cooperatives agreement opportunities:

- [MUREP Engagement Opportunities in NASA STEM \(EONS\)](#)
- [NASA Human Exploration Research Opportunities \(HERO\)](#)
- [NASA Innovative Space Concepts \(NIAC\)](#)
- [Research Opportunities in Space and Earth Sciences \(ROSES\)](#)
- [Science Office for Mission Assessment \(SOMA\)](#)
- [Space Tech Public-Private Partnerships \(Tipping Point and ACO\)](#)
- [Space Technology Research Grants \(STRG\)](#)
- [University Leadership Initiative \(ULI\)](#)



Scan Code
For Latest
Reports





NASA Awards \$11.7M to 8 HBCUs – February 2023

MUREP DEAP

Data Science, Equity, Access and Priority in Research and Education

Established to enable HBCU students and faculty to conduct innovative data science research that contributes to NASA's missions.



James E. Shepard, Founder



NASA Awards \$3.4M to 7 HBCUs & 1 PBI – March 2023

MUREP PSI

Precollege Summer Institute

Established to enhance high school students' precollege performance and help them achieve success in higher education pursuits and STEM careers



Central Intercollegiate Athletic Association (CIAA)



STEM + PUBLIC ENGAGEMENT / Over 15 Years

High School Education Day

NASA "Color of Space" Documentary Screening

Career Fair

Fan Fest Public Engagement

NASA showcase at CIAA games



NASA Exhibit



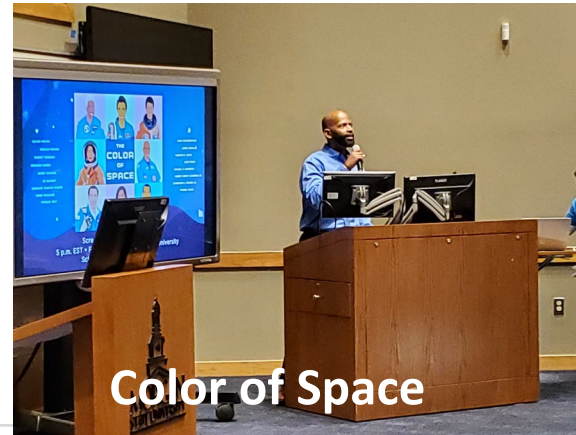
On-Court Announcement



Career Fair Booth



Meet & Greet



Color of Space



Inside NASA Exhibit



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A high-resolution, blue-tinted image of a celestial body, likely the Moon, showing a dense field of impact craters of various sizes. The craters are characterized by their circular shapes and raised rims. The lighting creates strong shadows, emphasizing the three-dimensional nature of the craters. The overall texture is rugged and heavily scarred. In the bottom right corner, the word "Break" is written in a large, bold, white sans-serif font.

Break

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Agenda



- Summary of Partnership Efforts
- Recent Partnerships
 - Types of Engagements
- Trends in Support Requests and New Opportunities
- US Dept of ED: Initial Engagement



CONNECTION TO THE AGENCY PORTFOLIO



NASA Support Structures (STEM Engagement)

Grants and Cooperative Agreements

- NASA Defines Requirements and Provides financial support
 - Space Grant
 - EPSCOR
 - MUREP
 - TEAMS II

Networks and Alliances

- NASA led support structure to share mission content and direct services to institutions or educators.
 - Museum and Informal Education Alliance
 - Astro-camp
 - CONNECTS
 - SPARX

Partnerships

- NASA and External organizations collaborate on mutually beneficial goals.
- Level of effort is substantial enough that a formal agreement is generally necessary.
- No NASA funding is provided.



Goals and Priorities



Goals

- Engage students across the United States in opportunities connected to NASA missions, themes or and Programs
- Bolster external efforts that contribute to federal STEM goals
- Broaden participation of students from groups traditionally underrepresented and underserved in STEM and STEM careers

STEM Engagement Committee Content Priorities

- Artemis I
- James Webb
- K-12 Engagement

Typical Supports

- NASA mission data
- NASA Imagery and Video
- Access to Subject matter expertise in scientific and technical disciplines
- NASA consultation on technical content review and career pathways
- Access to subject matter expertise in NASA STEM education and related disciplines



Engagement with 121 Organizations

Key Numbers

23 Active Enterprise OSTEM Non-Reimbursable Space Act Agreements

17 Artemis I Themed Opportunities development in collaboration with partners

7M+ Digital engagements (Content Downloads, Education Multi-Media Uses and Virtual Event Participants)*

*FY 22 Metrics Provided by Partners or available through Public Sources

Example Collaborators



ENTERPRISE-WIDE PARTNERSHIP COORDINATION



Guiding Documents:

- Agency Partnership Handbook
- STEM Engagement Partnerships Practical Guide STEM
- Engagement Partnership Best Practices
- Open Partnership Call
- STEM Engagement Partnership Rubric



Partnership Review Process (STEM Engagement)



PARTNERSHIP SELECTION CRITERIA

Office of STEM Engagement releases on open call for partnerships. This document is updated annually based upon feedback from the SEC and OGC.

- Goals
- Priorities
- Supports Available
- Selection Process and Criteria
- Format for Statement of Interest Submission
- Timeline
- Shell Agreement

Selection Criteria (Top Level)

Alignment to Goals

Benefit to NASA and Partner

Target Audience

Diversity and Inclusion Plan

Intended Outcomes

Anticipated Return on Non-Financial Investment

Timeline

<https://www.nasa.gov/stem/partnerships/index.html>





Typical Use Case of NASA Support

Position NASA resources
within partner networks
and platforms

29%

Modify NASA resources or
use them as inspiration for
new products

29%

Collaborate around
common themes or
events

42%



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Summary of Product/Activity Audience



Product or opportunities
delivered directly to
students

27%

Materials or resources for
educators to use both in
and out of classrooms

56%

Opportunities for
families, parents, or
caregivers

17%

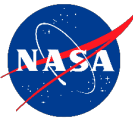


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Position NASA Resources within Networks and Platforms



Example Projects

- Code.org
- Flip
- Discovery Education
- LabXchange
- Million Girls Moonshot
- Charles Stewart Mott/Mizzen
- AT&T Achievery
- STEM Connector

Hour of Code

Hour of Code Activities

Try a one-hour tutorial designed for all ages in over 45 languages. Join millions of students and teachers in over 180 countries starting with an Hour of Code.

Want to keep learning? [Go beyond an hour](#)

Teachers: [Host an hour](#) or [read the How-To Guide](#)

re-reader Grades 2-5 Grades 6-8 Grades 9+ Beginner Comfortable

NASA's Space Jam
Grades 2+ | Blocks

NASA: Explore Mars With Scratch
Grades 6-8 | Blocks

NASA Moon 2 Mars
Grades 6+ | Blocks, JavaScript, Python, HTML...

Recoloring the Universe
Grades 6+ | Coffee Script (Pencil Code)

Universe in 3D: modeling and print...
Grades 6+ | Tinkercad Codeblocks

NASA: Lunar Coding Challenge
Grades 6-8 | Blocks, JavaScript

95K Resource Engagements

Discovery Education

Discovery Education @DiscoveryEd

Check out this out-of-this-world read-aloud for #SpaceWeek! 🌟 @NASA astronauts read "You Are Going" to connect students to each Artemis mission and discover all of the exciting possibilities of going to space. Blast off in 3...2...1: [bit.ly/3C5J50u](#)

Space Week
You Are Going: A Story About Artemis (Read-Aloud)

2:06 PM · Oct 4, 2022

Discovery Education @DiscoveryEd

@NASA Artemis 1 is ready for departure—and, together with @NASA's partners around the world, we are ready to return to the Moon, with our sights on Mars and beyond. Learn more about how each mission is lighting the way for the space exploration: [bit.ly/3UWq0ND](#)

Space Week
Artemis 1: We Are Ready

11:14 AM · Oct 2, 2022

Discovery Education @DiscoveryEd

How can astronauts in space communicate with each other if their communications channels were to go down? @NASA astronauts Kayla Barron and Raja Chari explain a few nonverbal ways to communicate to one another in this video perfect for #SpaceWeek: [bit.ly/3K0740](#)

Space Week
How Do NASA Astronauts Communicate Nonverbally in Space?

8:55 AM · Oct 10, 2022

Discovery Education @DiscoveryEd

Meet Renee Horton, a quality engineer at @NASA's Michoud Assembly Facility in New Orleans. Renee works with the largest welding tool in the world helping to build the largest rocket ever built. Learn more with the Faces of Technology for #SpaceWeek: [bit.ly/3M30c8P](#)

Space Week
Faces of Technology: Meet Renee Horton

9:08 AM · Oct 8, 2022

1.1M+ Product Engagements in last 10 months



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55



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Modify NASA Resources or Use them as Inspiration for New Products



[Download Thinking Sheet 1](#)

[Download Thinking Sheet 2](#)

Day 1: January 23rd



Daily Video

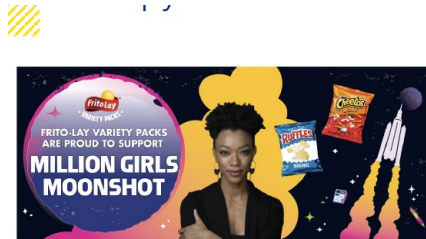


Challenge Video

Crayola Education
3.5M Students Registered

Example Projects

- AIA
- Crayola Education
- Frito-Lay
- LEGO Education
- Peanuts Worldwide
- Pear Deck
- Google (Applied Digital Skills)



Frito Lay (Back to School)
Displays in 250K US Stores



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56



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Collaborate around Common Themes or Events



Example Projects

- Minecraft Edu
- AIAA
- Amazon Future Engineers
- Challenger Learning Center
- Discover Engineering
- Microsoft
- Girl Scouts USA
- Google (Arts and Culture)
- Learn Fresh
- Disney
- US Forest Service



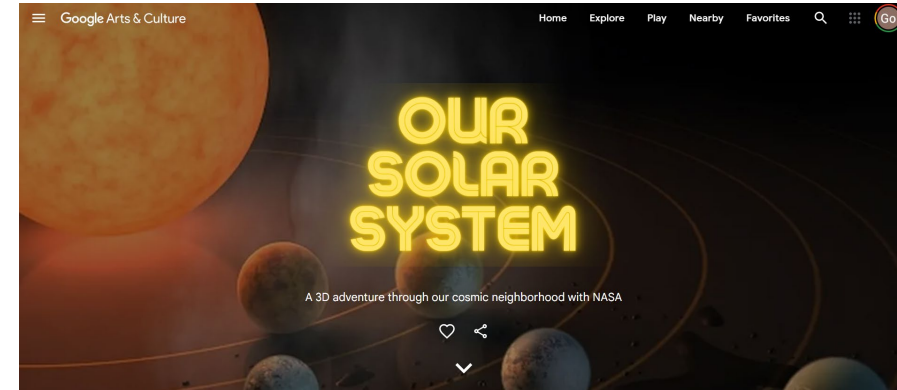
Minecraft Edu

Millions of Downloads in Commercial and Education Version



AIAA/Students to Launch

Enables participation of hundreds of students from under resourced communities in launches



Google

Huge Popularity in use of 3D Models and imagery, videos and articles



NOGGIN

2M+ Views in Space Explorers YouTube Channel



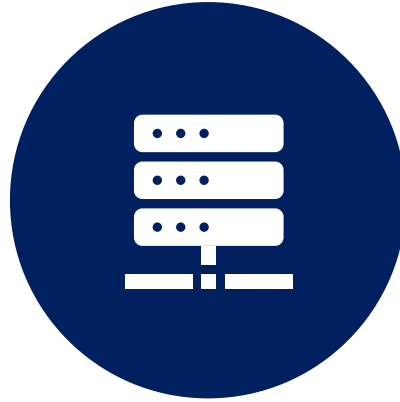
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Updates on New Supports Tied to Common Trends



STEM+: DATA SCIENCE
AND DATA LITERACY



INTERNSHIPS



CAREER PATHWAYS AND
ROLE MODEL EXAMPLES

Updates on New Supports Tied to Common Trends



STEM+: DATA SCIENCE AND DATA LITERACY

- Including Data Sets as New Product Category in NASA Online Search/Materials Repository
- Created 6 Earth Science Data Sets and supporting data sheets (Cleaned and Original Versions) for use in K-12 Settings (Release in August)



INTERNSHIPS

- Developing Internal Guidance for Centers, Missions and Mentors on Process to Engage Partners in Student Identification and Selection



CAREER PATHWAYS AND ROLE MODEL EXAMPLES

- Completed First Season of [Surprisingly STEM](#) a video career series for K-12 Audiences
- Will launch Season 2 in the Fall and include opportunities for live interaction with featured SMEs as part of support structure



US Dept of Education MOU

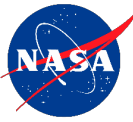
MOU Highlights

- White House Space Priorities
- You Belong in STEM Campaign
- Earth System Research
- Inspiration Through Missions

Priority Points

- Strengthen coordination around strategies, plans and communications
- Expand Access to Research, Internships, etc
- Support STEM Ecosystem Effort
- Increase Teaching Capacity
- Diversity and Inclusion Efforts
- Career and Technical Education
- Broad Based Student Engagement





US Dept of Education Projects

Active Projects

Project	Description
Career and Technical Education	<ul style="list-style-type: none">CTE Momentum Your Place in Space Challenge (Released in April 2023)Middle School Space Accelerator (Summer and Fall 2023)
TRIO/Upward Bound	<ul style="list-style-type: none">Coordination of Grant Opportunities with MUREP Precollege Summer Institute (8 Multi-Year Awards Announced in March 2023 with UB/UBMS Programs)
21 st Century Community Learning Centers	<ul style="list-style-type: none">Multi-Year Collaboration for Afterschool STEM Challenges and Support (Launches in Fall 2023)
Communications Coordination	<ul style="list-style-type: none">Collaboration on Artemis Crew II Announcement (April 2023)Planning for Back-to-School Campaign (Summer/Fall 2023)
You Belong in STEM	<ul style="list-style-type: none">NASA support and alignment for next steps in campaign



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Science Webinar Series



2023 | SOLAR ECLIPSES | 2024

National Aeronautics and Space Administration

Significant space milestones and phenomena in fall 2023 and spring 2024 provide unique opportunities to capture the imagination of students and the public.

Please join NASA's Science Mission Directorate, Office of Communications and Office of STEM Engagement for an informational webinar to learn more.

July 25, 2023
12:00 – 1:00 p.m. ET

Registration Link: www.surveymonkey.com/r/SolarEclipseWebinar



Large segments of the U.S., Central America and Canada will experience a pair of solar eclipses. Learn about the annular solar eclipse on October 14, 2023, and the total solar eclipse on April 8, 2024. Both provide a rare opportunity for students and the public to learn first-hand about the relationship between the Earth, Moon and Sun. Learn about:

- The science behind solar eclipses
- How to view eclipses safely
- Connections to NASA's study of the Sun
- NASA's plans for public and student engagement

www.nasa.gov

Collaborative Webinar Series for Partners

- Developed with SMD and OCOMM
- Upcoming Topics
 - Eclipse (July)
 - Asteroid Autumn (August)
 - James Webb (December)
 - Eclipse Update (February)

Eclipse Agenda

- Eclipse Overview and Safety
- Connections to NASA Mission and Key Messages
- NASA Engagement Plans

Agenda



Welcome and Introduction

STEM Engagement Priorities

Broadening Student Participation

Discussion

Break

Partnerships

Discussion

Break

Discussion, Findings and
Recommendations



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Discussion

- What noteworthy partnerships between federal agencies and organizations have you seen recently?
- What additional national scale organizations share similar goals and values with NASA and warrant further investigation for non-funded collaboration?

Agenda



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The background of the slide is a high-resolution, blue-tinted photograph of a celestial body, possibly the Moon. It is covered in numerous impact craters of various sizes, from small pits to large, well-defined basins. The lighting creates strong shadows, emphasizing the rugged, cratered terrain. In the bottom right corner, the word "Break" is written in a large, bold, white sans-serif font.

Break

Agenda



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Findings and Recommendations

