

SUN EARTH
UNIVERSE



SOLTIERRA
UNIVERSO



Introduction and Description

2. Introduction and Description

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Background

The *Sun, Earth, Universe* exhibition is an engaging and interactive museum exhibition about Earth and space science for family audiences.

The National Informal STEM Education Network (NISE Net) developed the *Sun, Earth, Universe* exhibition with funding from NASA.

The *Sun, Earth, Universe* exhibition is intended for long-term display in museums across the United States, where it will engage millions of people. Fifty-two (52) copies of the exhibition are being fabricated; all copies are identical and distributed to eligible NISE Network partners in 2018-2019 through a competitive application process.

The exhibition complements the NISE Network Explore Science: Earth & Space toolkits and other NISE Network educational experiences. The exhibition serves as a platform for scientists, museum staff, and volunteers to engage visitors with additional facilitated educational programming and hands-on experiences. The NISE Network intends the exhibition to reach a wide geographic distribution within the United States to engage visitors in Earth and space science.

About the NISE Network

The National Informal STEM Education Network (NISE Net) is a community of informal educators and scientists dedicated to supporting learning about science, technology, engineering, and math (STEM) across the United States. The NISE Network advances learning opportunities across the United States by bringing cutting-edge STEM research to museum exhibits and programs, improving the practices of educators and scientists, and creating lasting, valuable relationships among individuals and organizations. NISE Network leaders and practitioners develop educational products and implement them with multiple and diverse public audiences, provide professional development for practitioners, and create opportunities for capacity building through collaboration and networking. The NASA-funded effort to create the *Sun, Earth, Universe* exhibition and other Earth and space science educational resources is one project of the NISE Network. To learn more about the projects and partners of the NISE Network visit nisenet.org/about.

Exhibition Overview

Developed for Museum Audiences

- Fun, hands-on, and engaging
- Designed for families with children ages 6-12
- Evaluated with museum visitors
- Reviewed by subject matter experts

Audiences

The exhibition is intended for indoor use by visitors at children’s museums, science centers, science museums, natural history museums, nature centers, public planetariums and observatories, and NASA visitor centers in the United States. Target audiences are families with children ages 6-12.

Content

Visitors will engage in fun interactive Earth and space science experiences using skills essential to STEM learning in the 21st Century that are critical to the work of NASA in advancing new discoveries about our Earth, Sun, solar system, and universe. Visitors will:

- collaboratively engage in scientific and engineering processes,
- use their natural curiosity to explore phenomena and use a variety of tools to “see” forces and electromagnetic energy invisible to our eyes,
- use creativity and problem-solving skills to design, build, test, and improve a model spacecraft,
- use critical and analytical thinking to examine data,
- examine authentic Earth and space imagery and visualizations, and
- leave the exhibition understanding more about the process of exploring Earth and space and wanting to learn more.

Specifications

- Footprint: 500-600 square feet (46-56 square meters)
- Layout: modular design allows for flexible configurations and layouts
- Location: indoor museum use; not designed for portable outreach events

- Signage: bilingual English and Spanish
- Power: one exhibit component requires electricity
- Setup: components fit through standard door and passenger elevator
- Transport: exhibition will be shipped on pallets; exhibition may be transported in a small rental truck for sharing among museum partners
- Maintenance: several components have loose parts; parts are large enough to not pose a choking hazard
- Customization: all exhibition copies will be identical; information will be provided to assist museums who want to add NASA's *Eyes* or *ViewSpace* computer kiosks at their own expense

Exhibition Description Overall (Short, Medium, and Long Versions)

Intended Audiences for Descriptions

We have provided a variety of descriptions that you may choose to use for different purposes.

- **Short descriptions** are intended for public audiences - suitable for press release and marketing materials
 - **Medium descriptions** are intended for public or professional audiences including educators and K-12 teachers
 - **Longer descriptions** are intended for professional audiences when more extensive descriptions are helpful
-

[short description version 1]

An engaging and interactive museum exhibition about Earth and space science for family audiences.

[short description version 2]

In this hands on exhibition, you'll learn about how scientists study the Earth, Sun, solar system and universe; design, build and test your own model spacecraft; use tools to see the invisible; and see how scientists use color to help us understand data.

[short description version 3]

In this hands on exhibition, you'll learn about how scientists study the Earth, Sun, solar system and universe:

- use tools to see the invisible
- use the engineering process to design, build, and test, your own model spacecraft
- use color like scientists do to understand data
- play a board game to learn about planning a mission

[medium description]

Through hands-on exhibit experiences, visitors to Sun, Earth, Universe will learn about how NASA missions are designed to help answer the big questions about our planet, our solar system and the wider universe. Visitors have the chance to engineer their own model spacecraft and test its durability for surviving the forces of a rocket launch. They'll get experience using tools that help researchers see the non-visible aspects of space. And visitors will see how data collected can be presented in different forms to help broaden our understandings of what's happening in space.

[long description version 1]

Visitors will engage in fun interactive Earth and space science experiences using skills essential to STEM learning in the 21st Century that are critical to the work of NASA in advancing new discoveries about our Earth, Sun, solar system, and universe. Visitors will:

- collaboratively engage in scientific and engineering processes,
- use their natural curiosity to explore phenomena and use a variety of tools to “see” forces and electromagnetic energy invisible to our eyes,
- use creativity and problem-solving skills to design, build, test, and improve a model spacecraft,
- use critical and analytical thinking to examine data,
- examine authentic Earth and space imagery and visualizations, and
- leave the exhibition understanding more about the process of exploring Earth and space and wanting to learn more.

[long description - version 2]

The *Sun, Earth, Universe* exhibition is an engaging and interactive museum exhibition about Earth and space science for family audiences. The Sun, Earth, Universe exhibition is intended for long-term display in museums across the United States, where it will engage millions of people. Fifty-two (52) identical copies of the exhibition are being fabricated and distributed in 2018-2019 to eligible NISE Network partners through a competitive application process.

The exhibition complements the Explore Science: Earth & Space toolkits and other NISE Network educational experiences. The exhibition serves as a platform for scientists and museum staff and volunteers to engage visitors with additional facilitated educational programming and hands-on experiences. The NISE Network intends the exhibition to reach a wide geographic distribution within the United States to engage visitors in Earth and space science.

Titles of Each Component

***Sun, Earth, Universe* exhibition components**

- 1) Design > Build > Test engineering activity
- 2) Use tools to detect the invisible
- 3) Your mission to space board game
- 4) Mars landscape play table
- 5) Reading and seating area
 - Current events / Visitor feedback board
 - Bookshelf
- 6) We ask questions about Earth
- 7) We ask questions about the Sun
- 8) We ask questions about the solar system
- 9) We ask questions about the universe
- 10) Solar system stools
- 11) Companion website

Short Descriptions of Each Component

Overall: An engaging and interactive museum exhibition about Earth and space science for family audiences.

- 1) Design > Build > Test engineering activity :** Design, build, and test your own spacecraft model that has key tools needed to complete a NASA mission.
- 2) Use tools to detect the invisible:** Use an infrared camera, an ultraviolet (UV) light, a magnifying glass, and a magnetic field detector to reveal the information that's not visible to our human eyes.
- 3) Your mission to space board game:** Put all your new space mission-planning knowledge to the test by playing this board game. Will your mission be the first to be completed? What will you discover?
- 4) Mars landscape play table:** Little scientists use imaginative play while exploring the surface of Mars with toy rovers and spacecraft.
- 5) Reading and seating area**
 - Bookshelf / Seating: Sit back and relax while browsing space-themed books and reading cards.
 - Current events / Visitor feedback board: Learn about upcoming astronomical events, local events, citizen science opportunities, and share your thoughts about space-themed questions.
- 6) We ask questions about the Earth:** How is Earth changing? Compare before and after satellite images of Earth to see how human-caused actions impact our home.
- 7) We ask questions about the Sun:** How do storms on the Sun impact Earth? Compare images that show the Sun at periods of high activity, called the solar maximum, and periods of low activity, the solar minimum.
- 8) We ask questions about the solar system:** What is it like on other planets? Use colored blocks to create a topographic map of elevations on Venus to learn how scientists use color to visualize data.
- 9) We ask questions about the universe**

Are we alone? Spin a tumbler of 10,000 beads, representing all of the stars we can see from Earth to search for the unique one that represents our Sun.
- 10) Solar system stools:** Stools feature beautiful images of the planets in our solar system.
- 11) Companion website:** A companion website www.explorescience.org/sun allows visitors the opportunity to explore in more depth at the museum on their phones or at home.

Short, Medium, and Long Descriptions of Each Component

Intended Audiences for Descriptions

We have provided a variety of descriptions that you may choose to use for different purposes.

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-

1) Design > Build > Test engineering activity

[short description]

Design, build, and test your own spacecraft model that has key tools needed to complete a NASA mission.

[medium description]

Focused on the engineering and design process, this exhibit includes three stations:

- Design: Real missions and visitor created spacecraft inspire visitors planning their own craft. Designers should include the key tools to accomplish their proposed mission.
- Build: Visitors build a spacecraft from plastic and foam pieces.
- Test: Visitors test their spacecraft using a parts checklist, spin test and shake test.

[long description]

This multi-stage visitor experience explores the engineering process used to design, build, test, and improve spacecraft. Visitors engage in problem-solving and systems engineering through hands-on manipulation of physical materials. Inspirational designs and images from NASA

missions provide real examples. Located at the center of the exhibition, this exhibit focuses on the engineering design process and includes three stations:

- **Design:** Visitors are inspired by real NASA missions as they design their own craft that has the tools it needs to complete a mission. Images of spacecraft are annotated to point out their tools: power sources, communication devices, navigation tools, and scientific instruments. A vitrine displays a model spacecraft, similarly annotated, built from the exhibit's building pieces. Visitors are asked to think about where their spacecraft will go, what science questions it will seek to answer, and what tools it will need.
- **Build:** Visitors build a spacecraft from plastic and foam pieces. Graphics instruct visitors to include at least one tool from each of four categories: power, communication, navigation, and science.
- **Test:** Visitors test their spacecraft using a parts checklist, spin test, and shake test. The checklist ensures the spacecraft has all of the tools it needs for a successful mission. The spin test checks to see if it's balanced for flight. And the shake test makes sure it can withstand the vibrations of launch. Visitors are encouraged to return to the Design and Build stations to improve their spacecraft if it fails any of the tests.

2) Use tools to detect the invisible

[short description]

Use an infrared camera, an ultraviolet (UV) light, a magnifying glass, and a magnetic field detector to reveal the information that's not visible to our human eyes.

[medium description]

Our eyes only perceive visible light – other forces and electromagnetic energy are invisible to us without special tools. Scientists equip spacecraft with devices that can detect these phenomena to “see” a more complete picture of the universe.

Visitors use four different tools to reveal images that are invisible to the naked eye and see how spacecraft equipped with similar tools allow scientists to better understand objects in our solar system and beyond. Use an infrared camera to detect an image. See how magnification with a lens can enlarge small details. Detect magnetic fields with a detector. Find invisible images under an ultraviolet light.

[long description]

At this exhibit visitors have authentic STEM learning experiences revealing the unseen forces and energy present in the universe using a variety of tools that model instruments onboard NASA missions. The accompanying graphic uses Juno as an example and points out some of the tools it uses to gather data about Jupiter.

Our eyes only perceive visible light – other forces and electromagnetic energy are invisible to us without special tools. Scientists equip spacecraft with devices that can detect these phenomena to “see” a more complete picture of the universe.

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3) Your mission to space board game

[short description version 1]

Put all your new space mission-planning knowledge to the test by playing this board game. Will your mission be the first to be completed? What will you discover?

[short description version 2]

Choose a challenge, plan your mission, complete the engineering loop, then collect and analyze data in this board game that takes you through a simulated space mission.

[medium description]

A space mission is made of many parts. This board game puts them all together to take you from project planning and engineering to traveling in space and data collection to analysis of all that information back on Earth. Hopefully it leads to major space discoveries. Choose the question you wish to research and then start down the path through assorted challenges. Along the way you'll read about true stories from actual NASA missions.

[long description]

This board game provides an overview of the process teams of NASA scientists and engineers use to plan, implement, and successfully complete scientific research missions to answer questions about Earth and space science.

The board game takes visitors through the process of a mission—from project planning to engineering, traveling to space, collecting data, and data analysis. To play, visitors choose one of four questions for their mission: How is the Sun changing? How do distant galaxies compare to our own? Where in our solar system might we find life? How is Earth’s climate changing? Visitors twirl the spinner and move a playing piece representing their team of scientists and engineers along the board, following the instructions on the spaces along the way. The game progresses from planning and engineering to data collection and analysis. At three points along the board players encounter true stories that relate events from real NASA missions to the game. For example, a space in the data collection section of the game says that your spacecraft lasted longer than expected and tells the true story of the Opportunity Rover on Mars.

4) Mars landscape play table

[short / medium description]

Little scientists use imaginative play while exploring the surface of Mars with toy rovers and spacecraft.

[long description]

Designed specifically for toddlers, the top of this small play table is an image of the surface of Mars taken by the Mars Reconnaissance Orbiter. Spirit, Opportunity, and Curiosity toy rovers and a Mars Reconnaissance Orbiter spacecraft block encourage imaginative play.

5) Reading and seating area

[short description]

Sit back and relax while browsing space-themed books and reading cards.

[medium description]

Want to go a little deeper in your research? The resource area has space-themed books and reading cards to provide more information on special interests you might have.

[long description]

Two couches provide ample seating for visitors looking for a place to relax. And a bookshelf stocked with space-themed books and reading cards exploring topics of special interest provide engaging reading material for both children and adults.

5) Reading and seating area - Current events / Visitor feedback board

[short / medium description]

Learn about upcoming astronomical events, local events, citizen science opportunities, and share your thoughts about space-themed questions.

[long description]

Space exploration is a continual process; this area gives visitors the chance to learn more on their own as well as express their own thoughts. The magnetic graphic and series of magnets allows exhibition hosts the flexibility to post information about local events and astronomical happenings, direct visitors to a website for citizen science opportunities, or ask visitors to reflect on a space-themed question. Post-it notes and pencils can be provided to allow visitors to share their thoughts.

The magnets for posting celestial events, observing opportunities, and news:

- Night Sky News
- Earth and Space News

The citizen science magnet directs to:

- Visit SciStarter.org to learn how you can participate in astronomy and Earth science projects!

Visitor question magnets ask:

- What do you wonder when you look up at the stars?
- How would you feel if life was discovered on another planet? Why?
- What would you name a newly discovered planet?

6, 7, 8, 9) Exterior graphic panels

[short description]

Every mission starts with a question. Four large graphics introduce some of the compelling questions NASA scientists continually explore.

[medium description]

The more we explore space, the more questions arise. See the processes NASA uses with its spacecraft to gather information and answer questions that interest us about our planet, our solar system and deep space. Through simple interactive experiences, visitors get hands-on lessons on the tools and methods used to collect this data.

[long description]

In addition to the title panel, four large, exterior facing graphic panels help to define the exhibit space, allowing for a great deal of flexibility in how the exhibit is set up in different venues. The panels also function as title panels for people who approach the exhibit from different directions.

Each of the large exterior panels focuses on one of NASA's four Science Mission Directorate areas of research—astrophysics, heliophysics, planetary science, and Earth science. Each features a big attractive image to catch visitors' attention, fun facts playfully drawn on the image and a picture of the spacecraft that captured the image. The images and spacecraft featured are:

- The Sombrero Galaxy viewed by the Hubble Space Telescope,
- An extreme ultraviolet image of the sun collected by the Solar Dynamics Observatory,
- Antarctica captured by Landsat 8, and
- Saturn's moon Enceladus as seen by the Cassini spacecraft.

6) We ask questions about Earth

[short description]

How is Earth changing? Compare before and after satellite images of Earth to see how human-caused actions impact our home.

[medium description]

How is Earth changing? Satellite photography allows us to document changes that are taking place on the surface of the Earth over time. Visitors can flip through before-and-after images captured of various sites on our globe to see how human-caused impacts are changing our home.

[long description]

How is Earth changing? Visitors can see some of the changes for themselves with a series of four graphic flips. Each flip features a pair of satellite images of the same location taken at different times. For example, one pair shows Shanghai in 1984 and 2016. The rapid expansion of the urban area in that 30-year period is very dramatic. The other locations featured are the artificial islands in Dubai, Arctic sea ice, and open pit coal mines in Wyoming.

7) We ask questions about the Sun

[short description]

How do storms on the Sun impact Earth? Compare images that show the Sun at periods of high activity, called the solar maximum, and periods of low activity, the solar minimum.

[medium description]

How do storms on the Sun affect life on Earth? Visitors will see the sun as they've never seen it before—in X-ray, infrared and ultraviolet light. Examining images taken during the solar maximum and minimum reveals the dynamic nature of the Sun.

[long description]

How do storms on the Sun impact Earth? Storms on the Sun can cause problems for electrical power grids and communication systems on Earth. Understanding these surges in the electromagnetic energy from the Sun can help minimize disruptions to our everyday life. By comparing images of Sun taken through infrared, x-ray, ultraviolet and visible light, visitors can see what the sun is like during storms, the solar maximum, and periods of low activity, the solar minimum.

8) We ask questions about the solar system

[short description]

What is it like on other planets? Use colored blocks to create a topographic map of elevations on Venus to learn how scientists use color to visualize data. ***[medium description]***

What is it like on other planets? We haven't visited other planets in person, but we've come close enough with spacecraft to collect plenty of data that broaden our understanding of the unique characteristics of each of our solar system's neighbors. Visitors will be able to use colored blocks to create a color-coded topographic map of a portion of the surface of Venus based on measurements collected through the planet's thick atmosphere by passing spacecraft.

[long description]

What is it like on other planets? With stunning representational color images of Saturn, the moon, Mars and other locations in the solar system, this exhibit introduces visitors to representational color images as a technique for visualizing and understanding data. Visitors can create their own representational color image of surface elevations on Venus using colored blocks. Before beginning, they see a photograph of Venus in which the planet's surface is completely obscured by clouds. A grid has been laid over the image and each square is numbered from 1 to 5 to indicate the average surface elevation of that location. Using a key to match the number in each square to a color, visitors place the appropriate colored blocks on the image. Pixel-by-pixel they build a representational color image of the elevation on Venus.

9) We ask questions about the universe

[short description]

Are we alone? Spin a tumbler of 10,000 beads, representing all of the stars we can see from Earth to search for the unique one that represents our Sun.

[medium description]

Are we alone? The vastness of the universe can be a hard concept to grasp. Visitors can compare what they see in a large image of space taken by the Hubble Telescope with the little view they get by seeing a dot of light through a scope. The size of that dot represents the portion of the night sky that the enlarged image represents. Where does Earth and the Sun fit in to all of that? Spin a tumbler with 10,000 beads to find the one unique bead that represents our Sun among all our galaxy's stars.

[long description]

Are we alone? Featuring the Hubble Ultra Deep Field image, this exhibit includes two simple interactives that invite visitors to ponder the scale of the universe. The first is a pinhole viewing scope. Looking through, visitors see just a tiny pin prick of light at the end. The text explains that the Hubble Ultra Deep Space image, containing 10,000 galaxies, is showing an area of the sky as small as this dot.

The second interactive is a cylinder containing 10,000 beads. The beads represent all of the stars we can see from Earth without using a telescope. Twenty percent of the beads are blue. These blue beads represent stars with planets that scientists think could host life – the so-called “goldilocks” planets. But there is just one star that we know for certain has a life-bearing planet; our Sun, represented by a red bead. Visitors spinning the tumbler to find the red bead will notice just how many star systems could potentially support life.

10) Solar system stools

[short / medium description]

Stools feature beautiful images of the planets in our solar system.

[long description]

Eight stools feature beautiful images of the planets in our solar system along with fun facts about each planet.

11) Companion website

[short description]

A companion website www.explorescience.org/sun allows visitors the opportunity to explore in more depth at the museum on their phones or at home.

[medium description]

A companion website www.explorescience.org/sun features answers to questions posed throughout the exhibition; the website features beautiful video footage from NASA giving visitors the opportunity to explore in more depth at the museum on their phones or at home.

Also featured on the website is Audio Description in English and Spanish intended for visually impaired visitors; the audio description for each exhibit component can be played directly from the website and text scripts can also be downloaded for screen readers.

[long description]

In addition to the physical components, visitors can also learn more about Earth and space with their mobile devices while they explore the exhibition.

Many exhibit panels provide a question prompt and a link to explorescience.org/sun. Here visitors will find NASA video footage and mobile-friendly interactives that provide them with the opportunity to go further while at the museum or at home using their mobile device.

Also featured on the mobile website are English and Spanish Audio Descriptions. The audio description mp3 files for each exhibit component can be played directly from the mobile website or downloaded as a zip file archive. Scripts can also be downloaded for screen readers in Adobe PDF or Microsoft Word formats.

Display and Ownership Commitments

The following information about the exhibition display and ownership commitments is included in the ownership agreement between the Science Museum of Minnesota and the awarded institution (CLIENT) and is included here for reference.

- CLIENT (“Awarded Institution”) has primary ownership of the exhibition. “Host Institutions” include all institutions displaying the exhibition. CLIENT may share the exhibition with other Host Institutions. Ownership by CLIENT will commence upon the day the exhibition is received.
- CLIENT (and their optional sharing Host Institution) will commit to display the exhibition in its entirety for a minimum of one (1) year.
- The one (1) year required display period does not have to be contiguous or at the same host location; however, the exhibition must be on display for a minimum of twelve (12) months within the first twenty-four (24) months of ownership.
- If circumstances change and CLIENT is unable to display the exhibition, CLIENT must immediately notify NISE Net exhibition contact.
- After meeting the one-year display commitment, CLIENT may keep the exhibition on display as long as they deem appropriate.

During the 1 Year Required Display Period

- CLIENT (and their optional sharing Host Institution) shall be responsible for all repairs, routine care, maintenance and replacements of consumable supplies.
- CLIENT (and their optional sharing Host Institution) may modify some portions of the exhibition to meet the needs of their museum floor. For example, repairs with non-specified parts, additional exhibit components, additional signage, or additional multimedia components.

After the 1 Year Required Display Period is Met

- CLIENT may keep the exhibition and continue to use the exhibition as they see fit.
- CLIENT may choose to use or modify the exhibition and components for another purpose, at their own institution.

- CLIENT may share (lend) the exhibition with another suitable institution of the CLIENT's choosing for display to the public. The NISE Network may be able to offer suggestions of possible locations interested in borrowing the exhibition.
- CLIENT may give away the exhibition (relinquishing ownership/transfer of ownership) to another suitable institution of the CLIENT's choosing for display to the public. The NISE Network may be able to offer suggestions of possible locations interested in owning the exhibition.

In any event, CLIENT will notify the NISE Network of its intention for use beyond the one (1) year required display period at least four months prior to the end of the one (1) year display period.

Restrictions

CLIENT (and their optional sharing Host Institution) may not remove any credit graphics on the exhibition.

- CLIENT (and their optional sharing Host Institution) may not charge a separate additional admission fee or "up-charge" in addition to their regular museum admission to allow visitors to visit the exhibition.
- CLIENT (and their optional sharing Host Institution) may not sell the exhibition for a fee (with the exception of transportation costs).
- CLIENT may not charge a rental fee to tour or travel the exhibition (with the exception of transportation costs to transport the exhibition to another Host Institution).
- If the CLIENT gives away the exhibition to another institution, the CLIENT is responsible for ensuring that all restrictions within this contract will transfer along with ownership of the exhibition.

Maintenance and Repair

- CLIENT is responsible for maintenance and repair of the exhibition while on display.
- A duplicate set of spare/loose parts will be provided for the following components:
 - "Design > Build > Test" engineering activity building materials
 - "Use tools to detect the invisible" tiles
 - "We ask questions about the solar system" colored wooden rods
 - "Your mission to space" board game pieces
- A technical support manual for the exhibition will be provided.
- NISE Network or Science Museum of Minnesota is not able to provide ongoing technical support, maintenance, and additional spare/loose parts for the exhibition.

Shipping

- SMM will deliver the exhibition to the CLIENT (or their designated Host Institution) at no charge to the CLIENT. The exhibition will be shipped on pallets.
- If CLIENT intends to share the exhibition among different locations, CLIENT and their sharing Host Institution partners will be responsible for any and all fees associated with additional shipments.

Set-up and Installation

- Exhibition is designed to be easily unpacked and installed; set-up and installation instructions will be provided in the host resources.
- CLIENT is responsible for actual installation.

Reporting Requirements

- CLIENT will be required to submit annual online reports (provided by the NISE Network) for up to five years upon receiving the exhibition to share their experiences of how they used or modified these products with the rest of the NISE Network. The report will include:
 - a short narrative of how the exhibition was used
 - the estimated number of visitors to the exhibition (including at shared host locations)
 - any modifications made to the exhibition
- The NISE Network will provide a brief online report template for CLIENT to use for reporting on activities during the January – December of each year for up to five years. The first year's report will tentatively become available in January of each year, and will be due in February of each year.
- If CLIENT is sharing with another Host Institution, CLIENT is still responsible for seeing the report is completed on time, working with their collaborators to obtain all the necessary info to complete annual reports.
- All Host Institutions are also encouraged to participate in evaluation surveys conducted by project evaluators.

Publicity, Credit and Sponsorship

- CLIENT will be responsible for all publicity, promotion and advertising relating to the display of the exhibition at their site.
- Where appropriate, credit should be given to the NISE Network and to the exhibition funder NASA. Appropriate credit is included on the exhibition signage and is as follows:

This material is based upon work supported by NASA under cooperative agreement award numbers NNX16AC67A and 80NSSC18M0061. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the view of the National Aeronautics and Space Administration (NASA).

- Use of the NASA insignia logo and seal is restricted by NASA and **should NOT** be added to your press releases, promotional materials, exhibit signage, or wayfinding signage.

The NASA insignia logo (the blue "meatball" insignia), the retired NASA logotype (the red "worm" logo), and the NASA seal may not be used for any purpose without explicit permission. These images may not be used by persons who are not NASA employees or on products, publications or web pages that are not NASA-sponsored. These images may not be used to imply endorsement or support of any external organization, program, effort, or persons.

For more information about obtaining permission to use the NASA seal, please see <https://www.nasa.gov/multimedia/guidelines/index.html>

Contact: Bert Ulrich, bert.ulrich@nasa.gov

- CLIENT is responsible for ensuring all Host Institutions follow all crediting regulations.
- *Sun, Earth, Universe* exhibition logos and promotional materials will be included in the host manual.

Network resources for non-commercial, educational purposes, again provided the derivative work is properly attributed and is "shared alike", meaning it is made available to others under the same license that governs the original work.

Transfer of Ownership

Ownership of the Exhibition by CLIENT will commence upon receipt, subject to the limits set forth in this agreement. After meeting the obligations outlined in this agreement, CLIENT may transfer ownership of the *Sun, Earth, Universe* exhibition to another museum (New Owner). CLIENT will be responsible for including in their agreement with New Owner all terms of this original agreement. All logistics, labor and costs incurred shall be the responsibilities of CLIENT and New Owner, to be determined between both parties as part of this transfer of ownership.

Sharing and/or Loaning of Exhibition

If CLIENT chooses to share and/or loan the *Sun, Earth, Universe* exhibition to a different institution (Borrower), it is CLIENT's responsibility to make all arrangements. CLIENT will be responsible for including in their agreement with the Borrower all terms of this agreement. All logistics, labor and costs incurred shall be the responsibilities of CLIENT and Borrower to be determined between both parties as part of this loan agreement.

Acknowledgements

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Appendix - One Page Overview Flyer

One Page Overview Flyer - revised February 2-5-18