

Einstein's Incredible Universe:

Engaging Young Women in Space Science & STEM Exploration

2023 Request for Proposals

Project Overview

***Einstein's Incredible Universe* is an exciting new media and engagement program** designed to catalyze interest in space science and spark scientific curiosity in lifelong learners, especially young women. The project includes an all-new 3D/2D film for giant screen theaters and planetariums, produced by [Cosmic Picture](#), featuring the great discoveries of Albert Einstein and contemporary female astrophysicists who are putting his groundbreaking theories on space, time, and gravity to the test.

The project also includes an array of lifelong learning activities, including an opportunity for girl-serving organizations to participate in the [Dynamic Eclipse Broadcast \(DEB\) Initiative](#): a nationwide citizen science project that will equip participants with the technology and resources to capture and broadcast solar images during the 2024 total solar eclipse. This work, funded by NASA and the National Science Foundation, will ultimately allow scientific analysis of the sun's inner corona.

Group leaders participating in DEB through the Einstein's Incredible Universe Project will receive ongoing professional development training on space science and project-specific data collection, beginning with a two-day workshop at the [Great Lakes Science Center, home of the NASA Glenn Visitor Center](#) in Cleveland, Ohio. Participating girls will also learn through near-peer training opportunities, create media documenting their experience preparing for and participating in the citizen-science project, and perhaps even appear in the giant screen film itself!

The Einstein Project will leverage a train-the-trainer model for girl-group participation in DEB. All equipment will be provided, and costs will be covered. Group leaders will receive a stipend for their participation. **20 girl-serving groups will be selected to participate in this opportunity.**

Notes:

- This experience is best suited for smaller groups (e.g., 3-8 participants) so that girls have more opportunities to use the equipment, but larger groups (e.g., 10-15 participants) can also apply with the understanding that it may be more challenging for all girls to fully participate.
- The project is well-suited for high school and college students, although middle school students with a dedicated team leader can also thrive in DEB and participate in long-term follow-on projects.
- "Group leader" is a broad term that can refer to individuals who lead girls in STEM exploration through their institution (e.g., science center, library, school), organization (e.g., Girl Scouts, 4-H, Parks and Recreation), or standalone club/group (e.g., amateur astronomers).

Einstein's Incredible Universe is funded by a grant from the [National Science Foundation](#). The film is projected to release in 2025/2026.

Who Should Apply

Leaders of groups that promote STEM learning in out-of-school-time spaces that are:

- In the US, within the path of totality for the 2024 total solar eclipse (select locations in AR, IL, IN, KY, ME, MO, NH, NY, OK, OH, PA, TX, and VT). Go [here](#) to find out if your city is on the path, or use [this](#) interactive map.

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- Committed to encouraging girls to explore science, technology, engineering, and mathematics (STEM) and/or pursue STEM careers.
- Interested in furthering their knowledge about space science and building their capacity to lead girls in the exploration of space science concepts.
- Committed to sustained participation in the program from November 2023 through May 2024, including traveling to the two-day workshop at the Great Lakes Science Center (dates/details below) and research and evaluation efforts that may extend beyond May 2024.

Benefits

Participating groups will receive:

- Professional development for group leaders to build their capacity to lead young women in the exploration of space science, including an in-person workshop hosted by the Great Lakes Science Center and DEB personnel, featuring hands-on training on capturing solar data as part of the citizen science project. Training will also include general information on space science and strategies for communicating these concepts to younger audiences.
 - Workshop location: Great Lakes Science Center in Cleveland, OH
 - Workshop dates: Thursday, November 2, 2023 (afternoon) – Saturday, November 4, 2023 (afternoon)
 - Travel costs and compensation: Hotel accommodations will be paid directly by the Einstein project. Most meals will be provided. **A stipend of \$2500** will be provided to each participant to cover travel to/from the workshop and to compensate for participation in the duration of the project.
- Equipment and supplies: All necessary equipment and technology, including telescopes, cameras, and mounts, will be provided by the Einstein project. Participants will receive this equipment at the workshop and bring it home to use during the DEB project and beyond.
- Ongoing training for girls to participate in DEB, including through live stream and video-based sessions (in addition to the direct training provided by group leaders after the workshop).
- Opportunities to connect with other participating groups AND with the female astrophysicists featured in the film, including Dr. Andrea Ghez, winner of the Nobel Prize in Physics for her groundbreaking research on black holes, and Dr. Nergis Mavalvala, Dean of Science at MIT, who was part of the group that discovered the first scientific evidence of gravitational waves.
- The potential to be included in the giant screen film!

Expectations

Group leaders and girls will be expected to:

- Participate in the DEB citizen science project between **November 2023 and May 2024**, practicing with the equipment and capturing data during the total solar eclipse on April 8, 2024. Groups **may also** participate in longer-term follow-on projects using the provided equipment, including observations of star and asteroid light paths.
- Group leaders will attend the workshop at Great Lakes Science Center from November 2 - 4, 2023.
- Girls will create videos, vlogs, blogs, and/or written diaries about their experiences with DEB to be used as part of the project's research and evaluation efforts and/or as part of the project's social media and marketing efforts.

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- Group leaders will participate in project webinars hosted by the [National Girls Collaborative Project](#), including:
 - Project Onboarding Webinar on Wednesday, October 11, 2023, 11:00 AM - 12:00 PM PT / 2:00 - 3:00 PM ET
 - Science Showcase Webinar to be scheduled in 2024
- Participate in research and evaluation focused on gender equity in STEM education.

How to Apply

1. Join us for an optional **Application Webinar on Wednesday, September 6, 2023**, 11:00 AM - 12:00 PM PT / 2:00 - 3:00 PM ET, to learn more about this opportunity and ask questions. Please [register in advance here](#). *A recording will be shared with those who cannot attend live.*
2. [Complete the application](#) by **Wednesday, September 20, 2023**.
3. Applicants will be notified of decisions by **Monday, October 2, 2023**.

Questions

Email Emily Early, Senior Program Manager at the National Girls Collaborative Project, at early@ngcproject.org with any questions.

Application Questions

The following questions are for your reference only. Please [view the project webpage](#) and [complete the application here](#) to apply.

APPLICANT INFORMATION (GROUP LEADER)

- Group Leader Email:
- Group Leader First Name:
- Group Leader Last Name:
- Group Leader Phone Number:

Are you applying as part of an organization [] or as an individual []?

[\(If applying as part of an organization\)](#)

- Organization Name:
- Street Address:
- City:
- State:
- Zip Code:

Which best describes your organization?

- School (or Afterschool Program Sponsored by a School)
- Science Center or Other Informal Science Learning Organization
- County-Sponsored or Other Community Program
- Library

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- National Youth Organization such as Girl Scouts, Girls Inc., or 4-H
- Other: _____

Is your organization’s leadership aware that you are submitting this application, and have they approved participation if you are selected? *Check yes or no.*

- Name of Authorized Organizational Representative:
- Title:
- Contact Email:
- Contact Phone:

(If applying as an individual)

- Street Address:
- City:
- State:
- Zip Code:

QUALIFICATIONS

(All applicants)

- Describe your organization/program/group. Who is the target audience? What sort of programming do you/your organization offer? Why is your organization and/or program a good candidate for participation in the Einstein Project and DEB?
- Share specifics of the young people who would participate in the Einstein Project and DEB. Please include the number of participants, approximate ages/grades, gender, and race/ethnicity.
- Who is the primary group leader that will participate in this project and lead the girls in DEB? Briefly describe their interests and experience.
- Has the proposed group leader participated in other citizen science projects? Please elaborate.
- How would the proposed group leader benefit from participation and the professional development opportunities outlined in the RFP?
- Are you/is your organization in a U.S. state and city within the path of totality for the 2024 solar eclipse? States and cities can be found [here](#). *Check yes or no.*

SECONDARY CONTACT INFORMATION

*Please provide contact information if a second person will be involved with or support the project. Please note that there is only funding for **one group leader** to attend the workshop at Great Lakes Science Center.*

- First Name:
- Last Name:
- Title:
- Email Address:
- Phone number:
- Job responsibilities:

RESPONSIBILITY & APPROVAL

By checking the box below, the proposed group leader agrees to meet the [expectations listed in RFP](#).

By checking below, I understand I am committing to the expectations in this application if accepted:

- Group Leader

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