



NASA Kansas Space Grant Consortium

Request for Proposals



Space Grant K-12 Inclusiveness and Diversity in STEM (SG KIDS)

Proposals Due: **April 29, 2022**

Background

The NASA Kansas Space Grant Consortium (KSGC) is seeking proposals for eventual submission to a NASA cooperative agreement opportunity.

A successful Space Grant KIDS (SG KIDS) proposal *“expands the reach of individual Consortia to collaborate regionally on efforts that directly support middle and high school student participation in hands-on, NASA-aligned STEM activities. These efforts shall contribute towards the goal of the proposed activities benefitting diverse and inclusive student populations.”*

Proposals

NASA expects to select up to three (3) proposals for awards. The period of performance for each award is three (3) years. Successful proposals for this opportunity will be funded as cooperative agreements. Maximum funding for each award will be \$350,000 per award per year. The period of performance will begin two to three months from the selection announcement.

Interested investigators submit proposals directly to KSGC (not NASA). The KSGC due date is noon **April 29, 2022**. Following reviews, KSGC will recommend one (1) proposal for final submission to NASA. Investigators should be ready to quickly submit a Notice of Intent (NOI) to NASA on May 5, 2022 (if selected by the KSGC).

Selection

Final KSGC proposal selection is competitive and based on criteria identified in section K.5 of the NASA announcement.

Additional NASA specific information on the *SG KIDS* opportunity are included in this document's appendix and via NSPIRES (<https://nspires.nasaprs.com/external/solicitations/summary.do?solid=%7b5C940397-D3BD-30D1-FE6D-70040320623F%7d&path=&method=init>).

Submission

Submit proposals to KSGC Director (scott.miller@wichita.edu), as a single PDF document of less than 1 MB size, via email any time prior to the deadline. Proposals will be reviewed and a selection announced as quickly as possible.

Feel free to contact your Affiliate Representative or the KSGC Director, L. Scott Miller (scott.miller@wichita.edu), with any questions.

APPENDIX K: Space Grant K-12 Inclusiveness and Diversity in STEM (SG KIDS)

Summary: Space Grant KIDS (SG KIDS) expands the reach of individual Consortia to collaborate regionally on efforts that directly support middle and high school student participation in hands-on, NASA-aligned STEM activities. These efforts shall contribute towards the goal of the proposed activities benefitting diverse and inclusive student populations. Eligible institutions are the 52 Space Grant Consortia.

K.1 SCOPE OF ACTIVITY

K.1.1 Overview of Funding Opportunity

The Space Grant College and Fellowship Program (Space Grant) is administered through the National Aeronautics and Space Administration's (NASA) Office of STEM Engagement (OSTEM). Through Space Grant, NASA provides financial assistance via competitive awards to Consortia with Lead Institutions at the helm in all 50 states and the territories of District of Columbia and Puerto Rico. Space Grant was established by Congress in 1989 as a workforce development program in the United States that produces STEM-trained professionals.

This announcement seeks to provide faculty/staff and students assistance in executing authentic STEM engagement activities related to NASA missions. Additionally, these awards will provide NASA-specific knowledge and skills to learners who have historically been underrepresented and underserved in STEM. Space Grant Consortia are uniquely positioned to deliver high-impact experiential activities to peak STEM interest in middle and high school students in a variety of formal and informal environments. The Consortia address their state workforce needs by tailoring approaches to bolstering the STEM student pipeline, and this solicitation seeks to leverage these networks to achieve the stated goals.

Excerpt from EONS-2022, Appendix I:

The critical need to increase the number and diversity of high school students interested in and equipped to pursue careers in STEM fields is well documented in the 2020 National Science Board Science & Engineering Indicators: The State of U.S. Science & Engineering Report and the 2021 National Science Foundation's Women, Minorities, and Persons with Disabilities in Science and Engineering Report. To ensure the ongoing progress of its missions of research, development, and discovery, NASA relies on a steady pipeline of STEM talent that possess robust STEM content knowledge, technical skills, and professional skills. To address this concern, NASA provides a portfolio of opportunities for students to engage in authentic experiences with NASA content, missions, and people.

(End of Excerpt)

NASA SG KIDS solicits proposals from the 52 Consortia that will form a regional approach to formal or informal, hands-on, and experiential learning activities that are NASA-aligned for middle and/or high school students (see section [K.3](#) for additional details). For this effort, a region consists of three (3) or more states. Creation of co-designed STEM engagement activities will have as a focus the weaving of NASA unique assets with community needs and partnerships. If applicable, SG KIDS permits some level of curriculum development and requisite professional development, procurement(s) to support the regional activities, and student engagement with an overall goal to broaden their participation in STEM.

Proposers shall be innovative in the design of their experiences and use evidence-based effective strategies for developing middle and high school students' STEM identities, skills, and knowledge. Successful proposals shall identify and form partnerships or collaborations with local STEM industries, agencies, or other organizations to provide opportunities for middle and high school students to engage directly with NASA-aligned hands-on

activities (e.g., coding clubs, rocketry, ballooning, CubeSats, science clubs, etc.) See section [K.3.1 for additional details](#).

Successful proposals for SG KIDS will be funded as cooperative agreements not to exceed a three (3) year period of performance (POP). It is expected that there will be routine engagement between the successful proposers and NASA to include routine monitoring, engagement, and providing NASA subject matter experts to provide technical assistance/guidance to recipients as requested.

K.1.2 Goals and Objectives

The SG KIDS competitively awards funds to Space Grant Consortia for the design and execution of hands-on projects that will engage middle and high school students in authentic STEM activities to build NASA-specific STEM knowledge, skills, and STEM identity.

The goal of the SG KIDS is to utilize NASA's missions of research, development, and discovery to:

- Attract diverse populations of traditionally underserved and underrepresented middle and high school students to STEM and equip them with the tools necessary for success in college STEM degree programs leading to STEM careers.

The specific objectives of the SG KIDS are to:

- Enhance students' STEM identity, skills, and knowledge by engaging them in NASA-based authentic STEM learning activities.
- Leverage the Space Grant Consortia's reach across state lines to create regionally based exemplars of inclusive approaches to providing hands-on activities that have been previously proven successful.

K.1.3 National Priorities

On January 20, 2021, President Biden issued [Executive Order 13985 \(Advancing Racial Equity and Support for Underserved Communities Through the Federal Government\)](#), which calls upon all Federal Government agencies to pursue a comprehensive approach to advancing equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality. Affirmatively advancing equity, civil rights, racial justice, and equal opportunity is the responsibility of the whole of our Government. Because advancing equity requires a systematic approach to embedding fairness in decisionmaking processes, executive departments and agencies must recognize and work to redress inequities in their policies and programs that serve as barriers to equal opportunity. This Executive Order (EO) also defines the terms of underserved and underrepresented groups that this funding opportunity plans to positively impact.

On May 28, 2021, President Biden issued [Executive Order 14031\(Advancing Equity, Justice, and Opportunity for Asian Americans, Native Hawaiians, and Pacific Islanders\)](#). This EO establishes a White House initiative on Asian Americans, Native Hawaiians, and Pacific Islanders, as well as a Presidential Advisory Commission, both of which aim to advance equity, justice, and opportunities between and among these groups.

On June 25, 2021, President Biden issued [Executive Order 14035 \(Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce\)](#). This EO creates a Governmentwide initiative to promote diversity, equity, inclusion, and accessibility (DEIA). This EO is based on a growing body of evidence demonstrating that diverse, equitable, and

accessible workplaces result in higher levels of employee performance. SG KIDS awardees will serve as examples of how Space Grant continues to evolve to meet changing national and Agency priorities.

K.1.4 Agency-wide Priorities

Preparing the future STEM workforce is of strong interest to NASA and is one of three overarching goals articulated in the [Five-Year Federal STEM Education Strategic Plan](#) developed by the Committee on STEM Education of the National Science & Technology Council (CoSTEM). This plan calls on Federal agencies to create authentic learning experiences that encourage and prepare learners from diverse backgrounds to pursue STEM careers.

K.1.4.1 Relevance to NASA and NASA's OSTEM

The National Aeronautics and Space Act (Space Act) at 51 U.S.C. § 20112(a)(3) directs NASA “to provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof.” In support of this law, NASA engages students in its mission through a portfolio of STEM programs and activities.

The [2018 NASA Strategic Plan](#) reinforces the Agency’s commitment to inspiring an informed society; engaging students in science, technology, discovery, and exploration; and providing unique STEM opportunities for diverse stakeholders. NASA’s investments in these areas are guided by Strategic Goal 3: Address national challenges and catalyze economic growth; and Strategic Objective 3.3: Inspire and engage the public in aeronautics, space, and science. NASA’s support of U.S. industry and academia seeks to foster economic development and growth, embody American ingenuity, and serve as a magnet for the STEM workforce.

Additionally, the Agency has made a commitment to contribute to the diversity of the future aerospace STEM workforce and employs proactive efforts to diversify STEM pathways leading to NASA internships and employment.^{1, 2}

NASA’s OSTEM plays a critical role in achieving Strategic Objective 3.3 by implementing activities aligned to three goals for STEM engagement: 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’s people, content, and facilities; and 3) Attract diverse groups of students to STEM through learning opportunities that spark interest and provide connections to NASA’s mission and work.³

Annually, NASA OSTEM generates a body of evidence (e.g., performance data, participant data, metrics) collected from awardees to assess progress of its investments in achieving programmatic goals and objectives, as well as OSTEM’s progress in achieving the following multi-year OSTEM Performance Goals (PGs):

- PG 3.3.3 Provide opportunities for students, especially those underrepresented in STEM fields to engage with NASA’s aeronautics, space, and science people, content, and facilities in support of a diverse future NASA and aerospace industry workforce.
- PG 3.3.4 Provide opportunities for students to contribute to NASA’s aeronautics, space, and science missions and work in exploration and discovery.

¹ See National Aeronautics and Space Administration. 2018. NASA Strategic Plan 2018. Available at https://www.nasa.gov/sites/default/files/atoms/files/nasa_2018_strategic_plan.pdf.

² National Aeronautics and Space Administration. 2021. FY 2021 Volume of Integrated Performance. Available at https://www.nasa.gov/sites/default/files/atoms/files/fy2021_volume_of_integrated_performance.pdf.

³ National Aeronautics and Space Administration. 2020. NASA Strategy for STEM Engagement 2020 – 2023. Available at <https://www.nasa.gov/sites/default/files/atoms/files/nasa-strategy-for-stem-2020-23-508.pdf>.

SG KIDS seeks to contribute to NASA's goals and priorities for STEM engagement by inspiring students from groups traditionally underserved (rural communities and/or [Title I](#) primary schools) and/or underrepresented in STEM fields (i.e., women, racial and ethnic minorities, and persons with disabilities) to pursue STEM degree programs and preparing students for STEM careers in advancement of the U.S. national workforce development and educational goals. SG KIDS will provide access to NASA STEM Engagement content, resources, and technical assistance through collaborations with Next Gen STEM to implement hands-on activities for underserved and underrepresented middle and high school students.

K.1.4.2 Research Priorities for NASA Mission Directorates and Centers

Each proposer shall identify the primary NASA area(s) with which the proposed efforts will align. NASA-themed space exploration, aeronautics, space science, earth science, microgravity, or combinations of these themes are examples and not an exhaustive list. The following websites can be used to access additional information about the NASA Mission Directorates:

Aeronautics Research Mission Directorate <http://www.aeronautics.nasa.gov/>

Human Exploration Operations Mission Directorate (including the Exploration Systems Development Mission Directorate and Space Operations Mission Directorate)
<http://www.nasa.gov/directorates/heo/home/index.html>

Science Mission Directorate
<http://science.nasa.gov/>

Space Technology Mission Directorate
<http://www.nasa.gov/directorates/spacetech/home/index.html>

Proposals shall clearly and concisely describe the relevance of the proposed work to: 1) national priorities; 2) NASA's Strategic Goals and Objectives for STEM Engagement; and 3) the furtherance of Space Grant goals and objectives.

K.2 AWARD INFORMATION

K.2.1 Award Value and Period of Performance

Subject to Congressional appropriation of sufficient funds and NASA's receipt of proposals of adequate merit, NASA expects to select up to three (3) proposals for awards. The period of performance for each award is three (3) years. Successful proposals for this opportunity will be funded as cooperative agreements. Maximum funding for each award will be \$350,000 per award per year. The period of performance will begin two to three months from the selection announcement.

Proposals shall cover the full three (3) years of performance. NASA funding is based on a satisfactory evaluation of documented progress; compliance with data reporting, applicable regulations and laws, and other program requirements; fulfillment of fiduciary responsibilities; and the availability of appropriated funds.

K.2.2 Budget Guidelines and Requirements

All awards will be made to the lead institution of the lead Consortium for the proposed region. The regional partners will have agreements with the proposing lead Consortium, not directly with NASA.

NASA funds may be used for the support of:

- Students, faculty, and researchers, through the execution of student-centric programs, engagement in professional development, and the redesign, enhancement, or development of curriculum;
- K-12 students and/or undergraduate, graduate students, and their research in support of K-12 activities; and
- Research-related equipment, travel, and materials and to support project management and administration needed to implement proposed strategies and approaches.

K.2.3 Primary Roles

Every proposing institution shall identify a single individual, the Principal Investigator (PI), who will be responsible for the quality and direction of the entire proposed effort and for the use of all awarded funds. The PI on the award shall be a Consortium Director and be employed by the lead institution.

The PI's responsibilities include, but are not limited to:

- Provide visionary and contemporary leadership for the development of STEM ecosystems.
- Select and develop the team that will respond to this opportunity.
- Provide overall leadership, administration, and evaluation of the project and its activities.
- Engage with the institution's department, college, and university leadership to promote institutional advancement and enhanced capacity.
- Carry out supervisory responsibilities for project staff in accordance with the organization's policies and applicable state and federal laws.
- Provide day-to-day management of project budgets, and ensure that all applicable institutional and NASA rules, as well as state and federal guidelines, are followed in the development and utilization of such funding.
- Engage with the Independent Evaluator and project administration support staff to ensure that evaluation and required reports are transparent, appropriately conducted (maintaining independence from programmatic, regulatory, policymaking, and stakeholder activities), compiled, and reported.
- Ensure that all responses to data calls and reports (e.g., progress reports, annual/final performance reports) are completed in compliance with NASA guidance and delivered to the Space Grant Program Management Team in a timely manner.
- Participate in performance assessment and evaluation activities (e.g., performance data planning and reporting in NASA approved registration/application and data management system, focus groups, interviews, complete and/or administer surveys, documentation review, lessons learned discussions) in alignment with Federal, Agency and OSTEM performance and evaluation priorities and requirements. NASA will communicate and coordinate any relevant guidance, business processes, strategies, training and/or surveys in support of continuous program improvement and knowledge building for evidencebased decision-making.
- Participate in activity teleconferences and meetings.
- Provide visionary and collaborative leadership for the delivery of high impact broadening participation activities.

Independent Evaluator (IE)

Every proposing institution shall identify a single individual, an Independent Evaluator (IE), who will be responsible for analyzing qualitative and quantitative data for the site's evaluation activities and assisting the PI in development and implementation of the site's Comprehensive Evaluation Plan (CEP). Within two (2) months after awards are issued, each award recipient shall submit a CEP, for which both the PI and IE have concurred in writing. The Space Grant Program Management Team will provide guidance on the proposed CEP.

IE responsibilities include, but are not limited to:

- Develop a CEP for the proposed activity in collaboration with the PI and the Space Grant Program office.
 - Coordinate and administer activity metrics, data collection, analysis, and reporting of proposed activity evaluation data;
 - Provide status updates to the PI on evaluation activities, progress, and challenges;
- Participate in a kick-off meeting at award initiation and at least 1 site visit (possibly virtual) with the Space Grant Program Management Team to review the proposed activity's progress in achieving project goals.
- Develop an annual evaluation report and final evaluation report based on awardee evaluation data that demonstrates outcomes of the activity.

K.2.4 Partnerships and Collaboration

Proposals shall demonstrate carefully constructed partnerships that connect a wide range of stakeholders to achieve the goals of the proposed effort. Specifically, NASA has a strong interest in partnership teams with organizations that will address critical skills and increase the engagement of Underrepresented Minorities (URMs) in STEM. Proposals inclusive of diverse organizations and agencies (including industry), offering perspectives from traditional and nontraditional stakeholders, are strongly encouraged.

STEM ecosystems are formed through the development of co-created partnerships and collaborations with community members, local institutions, informal and formal educational institutions, students, teachers, families, and scholars of all ages. These ecosystems unite communities for the joint delivery of culturally relevant STEM education delivery.

An exemplary STEM ecosystem will include connection between and among students, faculty, NASA organizations, indigenous community members, youth development organizations, and non-profit organizations. Examples of STEM ecosystem members may include Space Grant, 4-H clubs, institutions of higher education, museums, libraries, and other informal education institutions. Each proposer is encouraged to include multidisciplinary team members that will contribute to the development of a STEM ecosystem. Proposals shall describe how the proposed teams/collaborations will increase student access to STEM opportunities and achieve SG KIDS goals.

Higher education institutions, industry, small businesses, non-profits, and other agencies play major roles in carrying out much of NASA's work and in conducting activities in related areas. Responsibilities of each partner shall be clearly defined and measurable. Partners will be assessed individually for their unique contribution to the collective implementation at the end of each performance year.

K.2.5 Integration with NASA and other OSTEM Activities

Collaboration with OSTEM's Next Gen STEM

The Next Gen STEM (NGS) project is composed of an integrated portfolio of products, student experiences, challenges and competitions, and competitive awards that span across educational levels and aim to reduce barriers to participation. All NGS efforts are designed to connect NASA's missions, programs, people and STEM content to a primarily K-12 student audience. That is, NGS is designed to reach students where they are –in school, afterschool programs, informal institutions like museums and science center, and at home. The goal of these efforts is to make meaningful connections to NASA that sparks students' interest in STEM; helping them see themselves in STEM careers and proving opportunities to contribute to NASA's mission in meaningful ways on their path to higher education. Next Gen STEM seeks to accomplish these things while taking concrete and proven actions, that are designed to broaden participation in STEM in underserved and underrepresented communities. The project also seeks to provide a continuum of opportunities, beginning with the lowest grades and Depths of Knowledge (DOK) to the highest. At the lower end of this spectrum, NGS provides a low barrier for entry (i.e., minimal time, equipment, adult support) and familiar constructs that are designed to spark interest among those with no appreciable STEM experience or identity. From this beginning point, success and confidence is built and then more challenging opportunities are available to further develop skills, confidence, and STEM identity (in both students and educators).

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

K.2.6 Program Evaluation

NASA identifies evidence of effective practices of NASA STEM Engagement activities through program evaluation. Evidence is a key criterion in NASA's competitive processes for allocating resources and ensuring that the most effective activities are supported. Program evaluations are planned studies using research methods to collect and analyze data to assess to what extent activities/programs are being implemented and what, if any, impact can be measured. Evaluations answer specific questions about performance and may focus on assessing activity/program process and outcomes.

Proposers shall develop an evaluation plan with their IE that follows generally accepted professional standards for evaluation research. An initial plan is required as part of the original proposal and shall include strategies for collecting data for performance metrics for the activity's reporting requirements as well as independent program evaluation and a Data Management Plan (DMP) in accordance with the NASA Plan for Increasing Access to the Results of Scientific Research (http://www.nasa.gov/sites/default/files/files/NASA_Data_Plan.pdf). While Space Grant recipients typically do not create the types of data normally captured and covered under a DMP, Space Grant recipients are required to capture and maintain the integrity of any personally identifiable information (PII) collected through the proposed evaluation. As such, the program requires a DMP to be described as a part of the proposed evaluation plan addressing the collection, storage, security and maintenance of PII data; specifying how data or products are to be stored, preserved, and shared.

Effective evaluation models are evidence-based, meaning that they are based on verifiable data and information that have been gathered using the standards of professional research and evaluation organizations. Such data may be qualitative and/or quantitative. A wide variety of evaluation designs may be utilized, as well as data collection methods, such as key informant interviews, surveys, direct observation, or focus group discussions. Regardless, such data shall pass the tests of reliability and validity, which are different for qualitative and

quantitative data.

NASA sets performance goals and is accountable to those goals through a framework that measures progress. Objective and verifiable performance metrics, internal and external review processes, valid and reliable data collection instruments, and evaluation studies are used to assess progress and performance across the portfolio, including programs, projects, and activities. NASA utilizes a data management system for analyzing performance data. To facilitate data input into the system, the Space Grant Program Management Team will collect performance and evaluation data via required reports (see section [K.6.1](#) of this document, *Cooperative Agreement Award Reporting Requirements*). NASA award recipients shall provide and verify performance data for the awarded activity with the Space Grant Program Management Team. Award recipients may also be required to respond to data calls and/or participate in future program evaluation data collection efforts at NASA OSTEM's request. The Space Grant Program Management Team will provide additional communications and guidance regarding data calls, future program evaluation efforts and timelines.

Through performance monitoring, assessment, and/or a meta-evaluation of the NASA STEM Engagement Investments, NASA will demonstrate its results-driven management approach that is focused in optimizing value to the American public. In accordance with this objective, the Space Grant Program Management Team will provide feedback and negotiate the final evaluation plans with grantees to ensure commonality across evaluation methods.

The following are examples of possible outcomes (not an exhaustive list) of SG KIDS:

- Creation of a STEM ecosystem engagement and experiential activity development;
- Educator assistance (stipend, professional development);
- Student awards (stipend, travel awards, etc.); and
- Encourage participation in NASA, Federal or industry-led non-satellite flight opportunities.

Each proposal shall adequately describe its process to obtain quantitative and qualitative data, and the quality of the activity infrastructure and programming by addressing each of the following (not listed in any order of importance), which will be evaluated for completeness:

- Identification of an IE who will develop plans for an evaluation approach and develop or identify tools or processes for quarterly and annual data collection.
- To assist in development of their proposals, PIs and IEs are encouraged to read the following resources:
 - The Office of Management and Budget (OMB) Memorandum [M-20-12](#), "Phase 4 Implementation of the Foundations for Evidence-Based Policymaking Act of 2018: Program Evaluation Standards and Practices."
 - "[Common Guidelines for Education Research and Development.](#)"
 - "[Designing Evaluations.](#)"

K.3 ELIGIBILITY INFORMATION

K.3.1 Proposing Institutions

Proposals will be accepted from the lead institutions of the 52 Space Grant Consortia in each state along with the

District of Columbia and the Commonwealth of Puerto Rico. NASA will only accept one proposal per consortium. The U.S. territories of Guam and U.S. Virgin Islands are not eligible to respond to this solicitation. A listing of current Space Grant institutions is available at this website:

https://www.nasa.gov/stem/spacegrant/home/Space_Grant_Consortium_Websites.html.

Lead Consortium

The lead Consortium will enter into a cooperative agreement with NASA and will maintain overall accountability for project performance and execution.

Required Partnerships

A single proposal by a lead Consortium is allowed with a minimum of two (2) other Consortia and/or STEM entities as partners. The partnering institutions will serve as sub-awardees to the lead Consortium that has the award with NASA. Suitable partnerships will be comprised of a minimum of two (2) different entities from the following list:

- Non-profit STEM professional organizations
- Community STEM organizations
- Industry
- Majority Institutions
- Minority-Serving Institutions
- Federal, state, and local government agencies
- Local and state school districts
- Museums/science and technology centers
- Research organizations

K.3.2 Award Funding Guidance

The following guidelines and restrictions apply to the use of award funds under SG KIDS:

- All funds shall be awarded to the lead institution (Consortium). Subcontracts/subawards, partnerships, and any other agreements within the proposing network are between the entity and the lead institution and not between the entity and NASA.
- The budget shall clearly include information for the lead institution's overhead/ G&A expenses.
- Cost sharing is not required but it may be voluntarily offered. The offering of voluntary cost sharing is highly encouraged. However, if cost sharing is offered in a proposal, this will not result in more favorable evaluation results.
- Any arrangement or agreement to have the fiscal management and/or administration of the award performed by a third party is between the recipient and the third party, e.g., an affiliated Board of Regents, University System, or Foundation.

NASA recognizes and supports the benefits of having diverse and inclusive scientific, engineering, and technology communities and fully expects the reflection of such values in the composition of all panels and teams, including peer review panels, proposal teams, science definition teams, and mission and instrument teams. Per Federal statutes and NASA policy, no eligible applicant shall experience exclusion from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from

NASA on the grounds of their race, color, creed, age, sex, national origin, or disability. NASA welcomes proposals from all qualified and eligible sources.

K.3.3 Limit on Number of Proposals per Unique Entity Identifier (UEI)

Only one proposal representing the lead Consortium per state can be submitted. However, there is no limit on the number of proposals for which a partnering Consortium can collaborate.

PIs shall serve in this capacity on only one proposal, but they may be listed as a Co-Investigator on any number of proposals for which they are in a non-lead role. For example, the Virginia Space Grant Consortia (VASGC) can submit only one proposal as Lead with a PI from VASGC, and VASGC can partner on another proposal submitted by Maryland Space Grant Consortium (MDSGC) where VASGC could provide a Co-Investigator. Eligible institutions may submit a proposal as the lead institution in accordance with the above information, and/or be included as an unfunded partner or sub-awardee in any number of proposals for which they serve in a nonlead role.

K.3.4 Guidance for Foreign National Participation

Please refer to Space Grant's [policy on U.S. Citizenship](#) and the section "Export-Control Guidelines Applicable to Foreign Proposals and Proposals Including Foreign Participation" in NASA's [Guidebook for Proposers](#).

K.4 PROPOSAL AND SUBMISSION INFORMATION

K.4.1 Proposal Content

Proposals developed in response to this Appendix shall clearly and concisely describe the how the Consortia-led STEM ecosystem will design and execute hands-on projects that will engage middle and high school (6-12th grade) students in authentic STEM activities to build NASA-specific STEM knowledge and skills and STEM identity. There is not an expectation that only new activities must be proposed, but an expansion of current relevant activities would also be appropriate. Proposals shall demonstrate a strong understanding of the circumstances that result in underutilized or underserved URM in STEM disciplines and proven strategies to increase their participation at the 6-12th grade level.

Proposals shall also offer detailed information, citation(s), goals, objectives, metrics, and Key Performance Indicators (KPIs). Proposals shall also contain details including, but not limited to: leadership, timeline, specific area (s) being addressed, evidence-based successes, best practices being employed, and the participation of subject matter experts. Proposed activities shall embody the unique capabilities, resources, and expertise of various entities focused on a unique concept or proven successful concept, which is to significantly impact the broadening of participation in STEM fields. Proposals shall include project milestones for each year of performance.

- NSPIRES Cover Pages
- Body of Proposal (10 pg.)
- Appendices
- Budget table and justification (no pg. limit)
- Principal Investigator (PI) Curriculum Vitae (CV) (2 pg.)
- CVs of Partners and Key Staff (1 pg. each)
- Current and Pending Support Key Staff (no pg. limit, see section 5.1)
- Letters of Support (no limit)
- [Assurances of Compliance](#) (NF 1206)

- Initial Evaluation Plan (no pg. limit)

K.4.2 Budget Guidance

The budget must clearly include information for the lead institution's overhead/general and administrative (G&A) expenses. Each subaward must include supporting budget documentation to substantiate those efforts.

- Funds may not be used for research/manufacturing efforts to be carried out by nonU.S. entities but may be used for the direct purchase of supplies and/or services from foreign sources that do not constitute research/manufacturing. For additional guidance on foreign participation, see the section in the [NASA Guidebook for Proposers](#), titled, Proposals Involving Non-U.S. Organizations.
- Foreign travel is not permitted under this award.
- Proposals shall clearly indicate key personnel roles and the division of labor. The lead institution of the lead Consortium shall perform administrative and other services to implement the scope work of the proposal and evaluation plan. The funding distribution shall be commensurate with the role of each team member in supporting the scope of work.
- If voluntary cost-sharing is proposed, it will not be evaluated during the selection process. Should a proposer voluntarily offer cost-sharing, the funding offered shall align with the requirements specified in the "[National Space Grant College and Fellowship Program - Opportunities in NASA STEM FY 2020 – 2024](#)" Announcement Number: NNH19ZHA001C, *see* sections 3.3 and 4.12.

K.4.3 Project Assessment

The activities of the independent evaluator (IE) (section K.2.3) and the process of independent evaluation (K.2.6) shall be tied to the project assessment.

Awardees shall establish multi-year goals and objectives with annual indicators of success (performance metrics) across their periods of performance. Annually, projects shall utilize evidence to demonstrate success and address deficiencies to implement improvements. The proposer shall describe key metrics to be used for project assessment, including a data collection plan for acquiring and aggregating data to which the pre-award baseline data will be compared. The proposer shall identify quantitative metrics where appropriate and discuss other means by which the partnership's progress will be assessed, including the approach to reporting information required in the annual performance report. Proposals shall document the intended outcomes of proposed project elements and offer metrics to demonstrate progress towards and achievement of these outcomes to align with Federal, Agency, and OSTEM performance and evaluation priorities and requirements.

K.4.4 Proposal Submission

Pertinent deadlines for SG KIDS are outlined in section K.6.5 of this document. All dates are subject to change. Please check the [NASA Solicitation and Proposal Integrated Review and Evaluation System \(NSPIRES\)](#) website for details.

All information to be reviewed in support of a proposal must be uploaded together as a single PDF submission in [NSPIRES](#). All proposals shall be submitted electronically through [NSPIRES](#) only. All organizations (e.g., academic and small business) and the team members participating in the proposal must be registered in [NSPIRES](#). Proposals delivered through any other means will be rejected. Also, late proposals (i.e., received after the stated deadline) will be rejected.

All information needed to respond to this announcement is contained in this Appendix, the EONS-2022 Notice of Funding Opportunity (NOFO), the [NASA Grant and Cooperative Agreement Manual \(GCAM\)](#), and the [NASA](#)

[Guidebook for Proposers.](#)

Note: If the information contained in this Appendix conflicts with the [GCAM](#) or the [NASA Guidebook for Proposers](#), the information in this Appendix takes precedence.

Notices of Intent (NOI) are required for this opportunity. NOIs are due by 11:59pm EDT Thursday, May 5, 2022. A full proposal will not be eligible for submission without the submission of a NOI by the date specified. Please refer to Section 2.3 of the [NASA Guidebook for Proposers](#) for information to be included in the NOI.

K.4.5 Pre-proposal Webinar and Questions and Answers

An attendance-optional pre-proposal webinar will be held on **Thursday, April 28, 2022, at 2pm Eastern Time (1pm Central Time, 12pm Mountain Time, 11am Pacific Time, 10am Alaska Time, 9am Hawaiian Time)**. Refer to the [SG KIDS landing page](#) on NSPIRES for connection details. During this webinar, prospective proposers may verbally ask questions about this opportunity. Proposers may also receive technical assistance from project staff at this time, including tips and guidance for submitting proposals. Additionally, Next Gen STEM will provide a high-level overview of its portfolio at this webinar. A recording of this webinar will be made available and posted on the [SG KIDS landing page](#).

Prospective proposers shall submit any questions via email only as instructed on the [NSPIRES](#) announcement of this opportunity. Responses to questions submitted will be provided in a “Frequently Asked Questions (FAQ)” list that will be posted on [NSPIRES](#). This list will be updated periodically during the open period for this opportunity.

Prospective proposers are strongly encouraged to register in [NSPIRES](#) as soon as possible and to sign up for notification emails to receive notice of the Pre-proposal webinar, and other pertinent updates.

K.5 PROPOSAL EVALUATION AND SELECTION

K.5.1 Proposal Review Criteria

Proposals will be evaluated by a merit review panel composed of the proposers’ professional peers (government and non-government), including STEM education and evaluation experts, who have been screened in advance for any conflicts of interest. NASA seeks a balanced project award portfolio and considers a variety of evaluation factors in the final award decision, such as but not limited to, different types of institutional representation, participation by individuals traditionally underrepresented in STEM studies and careers, and geography.

The proposal evaluation factors for SG KIDS award are: **Relevance to NASA Objectives (30%), Intrinsic Merit (30%), Teaming and Management (20%), and Budget/Cost (20%).**

Prospective proposers shall review the following specific criteria for SG KIDS Awards:

Relevance to NASA Objectives (30%)

Proposers shall adequately and clearly define how the proposed activity addresses the following criteria:

- Describes the state of the art in the literature for proposed research and STEM ecosystem development, and how the project will enhance, extend, or challenge the status quo in addressing national STEM workforce needs.

- Demonstrates alignment to NASA Mission Directorate priorities/goals by leveraging existing 6-12th graded resources/materials.
- Describes the potential collaborations between project and other NASA activities.
- Demonstrates alignment to Federal, Agency and SG KIDS priorities, goals, objectives, principles, and standards.
- Demonstrates innovative methods, approaches, and concepts to deliver the project by meeting SG KIDS objectives.

Intrinsic Merit (30%)

Proposers shall address the following criteria to demonstrate the capability of the institution, staff, faculty, collaborators, and targeted students to achieve successful outcomes for the proposed activity:

- Development of STEM ecosystems to include connection between and among students, faculty, NASA organizations, indigenous community members, youth development organizations, non-profits.
- Student engagement and an overall goal to broaden participation in STEM.
- If applicable, the activity includes required professional development opportunities to enact proposed activities.
- Demonstrates an achievable timeline for project activities over the period of performance, including benchmarks for success.
- Delineates mechanisms for building partnerships to enhance the ability of the lead institution to continue pursuit of these goals after this funding opportunity expires.
- Details a structured Diversity, Equality, Inclusiveness and Accessibility (DEI &A) approach to ensure underserved and underrepresented students are ed, recruited, and serviced.

Teaming and Management (20%)

- Clearly identifies all members of the partnership and how each member will contribute towards the research efforts of the proposed activity by defining clear roles and responsibilities.
- Provides a high-level organization plan/chart.
- Demonstrates a clearly organized and feasible plan for developing achievable STEM engagement, research and/or educational goals and objectives, and includes clear lines of communication with NASA and other members of the collaborative team.
- Provides a coherent initial evaluation plan that includes potential outcomes and outputs, *see* section K.2.7 of this document.

Budget/Cost (20%)

Proposals shall include an estimated budget and detailed implementation/costing plan that clearly demonstrates how funds will be utilized for the duration of the award. Proposers must have a separate budget table from the budget submitted with the NSPIRES proposal budget section. A template is set forth in section K.5.2 of this document and shall be completed for each proposed year.

- The evaluation plan must be properly scoped.
- Administrative costs shall be limited to not exceed 25% not inclusive of F&A/G&A rates.
- Align with budget guidelines and requirements outlined in section K.2.2 of this document
- Describe how the proposed budget and budget narrative/justification is allocable, allowable, and reasonable in relation to the scope and scale of the proposed effort.
- Demonstrate the effective use of funds for which outcomes justify total costs.

K.5.2 Required Budget Template

	SG KIDS Proposed Budget (Year 1)		
	NASA Funds	Cost-Share (if applicable)	Total Funding
A. Personnel/ Direct Labor			
1. Principal Investigator/ Director			
2. Program Manager			
3. Research Associate			
4. Staff Support			
Total Salaries			
B. Fringe Benefits			
1. Principal Investigator/ Director			
2. Program Manager			
3. Research Associate			
4. Staff Support			
Total Fringe			
C. Equipment			
D. Materials and Supplies			
E. Services			
F. Domestic Travel			
G. Activities			
1. Activity One			
2. Activity Two			
3. Activity Three			
Total Direct Project Costs			
H. Subcontracts			
I. Total Direct Costs			
J. Indirect Cost (% rate of item I)			
Total Costs			

K.5.3 Review and Selection Process

Reviewers and panelists with appropriate expertise will be identified to evaluate each proposal that meets the requirements stated within the SG KIDS solicitation. Proposers shall provide sufficient detail to enable an effective evaluation by persons who are knowledgeable of, but not necessarily specialists, in the proposed

research area. The reviewers may include personnel from NASA, other Government agencies, industry, and colleges and universities.

The number of compliant proposals will determine if a tiered review process (to include an online review) is necessary. The Selection Official can opt to send all proposals to panel for review and recommendation. Potentially, the proposals will be evaluated through a two-phased process to include an evaluation completed by reviewers and panelists. The first phase of the evaluation will be conducted by reviewers online, with the highest rated proposals moving forward to panel review. The panelists will present final recommendations to the NASA Selection Official.

The Selection Official will use programmatic factors to achieve an awardee portfolio that meets the goals and objectives of the Space Grant Program. NASA seeks a balanced award portfolio, and considers diverse factors, such as but not limited to, different types of institutional representation, participation by individuals traditionally underrepresented in STEM studies and careers, and geography. In evaluating the proposals, NASA will assign one of the following overall ratings:

- Excellent - A comprehensive and thorough proposal of exceptional merit with one or more significant strengths. No deficiency or significant weakness exists.
- Very Good - A proposal having no deficiency, and which demonstrates overall competence. One or more significant strengths have been found, and strengths outbalance any weaknesses that exist.
- Good - A proposal having no deficiency, and which shows a reasonably sound response. There may be strengths or weaknesses, or both. As a whole, weaknesses not offset by strengths do not significantly detract from the Proposer's response.
- Fair - A proposal having no deficiency, and which has one or more weaknesses. Weaknesses outbalance strengths.
- Poor - A proposal that has one or more deficiencies or significant weaknesses that demonstrate a lack of overall competence or would require a major proposal revision to correct.

Successful Proposals

Upon selection of the awardees by the Selection Official, the PI of each successful proposal will receive a "Notice of Intent to Make a Federal Award" letter via [NSPIRES](#) with an explanation of the review process and reviewers' comments about the proposal. It is anticipated that these letters will be released in Summer 2022. Proposers are strongly cautioned that only a NASA Grant Officer may make commitments, obligations, or awards on behalf of NASA, or authorize the expenditure of funds for this opportunity.

Unsuccessful Proposals

Upon selection of the awardees, the PI of an unsuccessful proposal will receive a non-selection letter with an explanation of the review process and reviewers' comments about the proposal via [NSPIRES](#).

K.6 AWARD ADMINISTRATION INFORMATION

K.6.1 Reporting Requirements for Cooperative Agreement Awards

The reporting requirements for award recipients under SG KIDS will be consistent with the [NASA Grant and Cooperative Agreement Manual \(GCAM\)](#).

Unless otherwise noted, the SG KIDS PI shall submit reports via secure transfer and following Personally Identifiable Information (PII) requirements to the SG KIDS Activity Manager. For additional information on PII, see [NASA Privacy](#).

Within one month (30 days) after award, using required report formats, recipients shall:

- Submit a descriptive SG KIDS project abstract for the nasa.gov website

Within two months after award, using required report formats, recipients shall submit a Comprehensive Evaluation Plan (CEP) that:

- Is developed by the IE with concurrence by the PI;
- Provides a clearly articulated logic model;
- Describes an appropriate evaluation plan/process that is based on reputable models and techniques, documents outcomes and demonstrates progress toward achieving the goals and objectives of the proposed education activities;
- Identifies how progress toward achieving the objectives of proposed education activities will be measured; and
- Identifies a timeline and benchmarks for objectives that align with SG KIDS reporting requirements.

NOTE: The NASA OSTEM Performance and Evaluation (P&E) Team will provide guidelines and templates for the CEP and evaluation report deliverables. The submitted CEP will be approved by the SG KIDS management team after the recipient dispositions any feedback and comments provided by the P&E Team.

On an annual basis, using required report formats, recipients shall:

- Participate in an annual site visit scheduled by the Space Grant Program Management Team;
- Submit a pre-site visit self-assessment that includes, at a minimum:
 - Project activities completed during the award period of performance
 - Project accomplishments measured against the proposed goals
 - Evidence of how project activities have furthered stakeholder priorities
 - Extent to which collaborations and/or partnerships have evolved
 - Plan of activities for the next year; and
 - ✦ Financial Report (spreadsheet of side-by-side comparison, cumulative and by year, by category, of budget versus actual with explanation of deviations from plan)
- Submit Quarterly Progress Reports
 - Exact dates will be determined after award kick-off
 - The timeline will align so that the last quarter report will be the annual performance report, which is a NSSC award requirement
- Submit Annual Reports and Performance Data Spreadsheets that include, at a minimum:
 - A narrative summary of progress; and
 - Accurate and comprehensive Performance Data Spreadsheets of numbers of students served, achievement highlights, additional funding awarded, and other items such as that required by the NASA STEM Gateway system
- Submit an Annual Evaluation Report (Developed by the IE, as an Appendix to the Annual Report) that includes, at a minimum:
 - The outcomes and demonstrated progress toward achieving the objectives of proposed activities aligned to the comprehensive evaluation plan; and
 - An annual and formative/summative assessment of the evaluation questions identified in site evaluation plans using the methods and instruments previously identified

Within 120 days of the expiration of the cooperative agreement, recipients shall submit a final report, using required report formats, with summary information from the entire cooperative agreement's period of performance. The final report will be comprehensive and summarizing over the entire period of performance. Note: awardees will follow the closeout timeline outlined in the award documentation (NF1687).

All recipients must timely complete all required reports as requested by the NASA Shared Services Center (NSSC) as listed on the cooperative agreement required reports and publications document.

K.6.2 Summary of SG KIDS Awardee Responsibilities

1. The SG KIDS award recipients will assume primary responsibility for implementing, operating, and managing the project as described in their original proposal and as modified in subsequent proposals for continuation beyond the initial period.
2. Each recipient shall select a PI in support of this agreement, to be primarily responsible for the award and the primary point of contact for NASA. If the PI to be named is different from the individual identified in the proposal, the SG Program Office shall be notified in advance and in writing. Any proposed change to the PI under this Agreement is subject to NASA's written advance approval, and the [Space Grant Guidelines for Director Changes](#). NOTE: NASA must approve modification to the Agreement to reflect such change. If NASA does not approve the change in the PI, the Consortium via the lead institution will propose another PI until NASA's approval is obtained.
3. The SG KIDS recipient will host an annual virtual progress update/review. At the review the PI and awardee will present, at a minimum:
 - Project activities completed during the award period of performance;
 - Project accomplishments measured against the proposed goals and objectives, metrics and KPIs;
 - Evidence of how project activities have furthered stakeholder priorities;
 - Extent to which collaborations and/or partnerships have evolved;
 - Plan of activities for the next year; and
 - Financial Report (spreadsheet of side-by-side comparison, cumulative and by year, by category, of budget versus actual with explanation of deviations from plan).
5. The recipient, in concert with the PI, is responsible for the financial management of SG KIDS as specified in the basic award notice under the terms and conditions issued by NASA and in the [NASA Grant and Cooperative Agreement Manual \(GCAM\)](#). Failure to comply with the terms and conditions of an award may result in NASA terminating the award.
6. The recipient shall ensure that any novel concepts that are authored or co-authored by investigators and sub-recipients into peer-reviewed scientific research, which were funded in whole or in part by NASA as a result of this cooperative agreement, are submitted in accordance with the award terms and conditions (see D.34 in the NASA [GCAM](#)). The recipient will be required to provide a list of publications with each annual report and final report at the end of the period of performance.
7. NASA reserves the right to impose additional requirements during the period of performance of this cooperative agreement to achieve broader SG KIDS or NASA objectives.

K.6.3 Office of STEM Engagement Metrics

NASA utilizes a performance management system (NASA STEM Gateway) for analyzing performance data. To facilitate data input into the NASA STEM Gateway, the SG Program Office will collect institutional data via annual narrative and spreadsheet templates, if required. PIs and their administrative assistants will participate in reporting training (may be virtual) to improve their data collection. The SG Program Office will communicate training and data collection tasks in a timely manner.

Recipients may also be required to respond to data calls as requested by NASA’s OSTEM. It is critical for all recipients to develop tracking methods or databases on project activities to timely respond to potential data calls. Additional communications and guidance regarding data calls and activity tracking will be sent from the SG Program Office. The recipient shall ensure that it has the appropriate staff and resources to be able to facilitate data collection activities and complete tasks required for timely performance reporting.

K.6.4 Export Control

- (a) The recipient shall comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 150 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this cooperative agreement. In the absence of available license exemptions/exceptions, the recipient shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data, and software, or for the provision of technical assistance.
- (b) The recipient shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this cooperative agreement.
- (c) The recipient shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.
- (d) The recipient shall be responsible for ensuring that the provisions of this clause apply to its contractors, subcontractors, and partners.

K.6.5 Summary of Key Information

Total ESTIMATED annual budget for SG KIDS activity	\$1,100,000
Maximum award value	Up to \$350,000
Number of new awards pending adequate proposals of merit	Up to 3 new awards
Start date (estimated)	Notionally 10/1/2022 (FY2023)
Duration of awards	3 years

Award Type	Cooperative Agreements
Appendix Announcement Number	NNH22ZHA007C
Release Date	March 31, 2022
SG KIDS Pre-proposal Webinar (Attendance Optional)	April 28, 2022, at 2pm EDT
Due date for NOI	May 5, 2022, at 11:59pm EDT
Due date for proposals	May 31, 2022, at 11:59pm EDT
Page limit for the central Scientific-Educational-Management section of proposal	10pp (includes all illustrations, tables, and figures, where each "n-page" foldout counts as n-pages and each side of a sheet containing text or an illustration counts as a page); see NASA Guidebook for Proposers .
Detailed instructions for the preparation and submission of proposals	See NASA Guidebook for Proposers
Submission medium	Electronic proposal submission is required via NSPIRES only; hard copy proposals will not be accepted. See NASA Guidebook for Proposers .
Web site for submission of proposal via NSPIRES	http://nspires.nasaprs.com/ Help Desk available at nspires-help@nasaprs.com or (202) 4799376 from 8 am to 6 pm Eastern Time; Monday through Friday, excluding Federal Government holidays.
Selection Official	Deputy Associate Administrator for Programs and Projects NASA Headquarters Washington, DC 20546
NASA point of contact for these awards; Please submit questions to this email address.	Erica J. Alston, Ph.D. Deputy Space Grant Manager NASA Langley Research Center Hampton, VA 23666 SGCFP@nasaprs.com