Nevada Governor's Office of Science, Innovation and Technology

REQUEST FOR APPLICATIONS

K-5 STEM Classroom Grant

2021-2022 Round 2

IMPORTANT INFORMATION

Purpose:	To increase the use of hands-on, evidence-based, experiential STEM learning in grades K-5. To increase the percentage of elementary schools that teach science three or more hours per week. To increase interest in, awareness of, and achievement in the subjects of science, technology, engineering, and mathematics in grades K-5, particularly amongst demographic groups that are traditionally underrepresented in STEM.
Proposals Due:	February 18, 2022
Funding Available:	Up to $1,500 per grant award
Eligibility:	K-5 educators and administrators from Nevada public schools or charter schools.
Website:	Please check the website OSIT.nv.gov regularly for updates. Additionally, information about past awardees can be found on the OSIT website.
Contact:	Tracey Howard T.Howard@gov.nv.gov

Nevada Governor's Office of Science, Innovation and Technology

REQUEST FOR APPLICATIONS –

GOVERNOR'S OFFICE OF SCIENCE, INNOVATION AND TECHNOLOGY

INTRODUCTION:

The Nevada Governor's Office of Science, Innovation and Technology (OSIT) was established by the Legislature (NRS 223.600) to grow and improve science, technology, engineering, and mathematics (STEM) education and STEM workforce development so that Nevada's workforce can meet the demands of its growing economy.

According to the research, one-third of boys and girls lose an interest in science by the fourth grade and a child's interest in STEM is largely formed by the time he or she reaches upper elementary and middle school.[1] The same research also finds that early exposure to STEM, especially for girls, makes children more likely to succeed in science and pursue STEM fields in college. Yet, just 38% of Nevada's elementary schools report offering STEM during the school day.[2] Therefore, if the State's goal is to increase the number of students participating in STEM programs in middle and high schools that prepare them for success in post-secondary STEM degrees and careers, research suggests STEM concepts should first be introduced at the elementary level.[3]

SECTION I: DESIRED OUTCOMES

Purpose:

This grant seeks to promote the equitable access to and increased quality of STEM programs in elementary schools in order to better prepare students for a career pathway to success in the New Nevada. This grant program aligns with three key strategies identified in the State STEM Strategic Plan[4].

1. To increase the use of hands-on, evidence-based, experiential STEM learning in grades K-5.
2. To increase the percentage of elementary schools that teach science three plus hours per week.
3. To increase interest in, awareness of, and achievement in the subjects of science, technology, engineering, and mathematics in grades K-5, particularly amongst demographic groups that are traditionally underrepresented in STEM.

K-5 STEM Classroom grants will be awarded to innovative, high-quality STEM projects seeking additional materials to enhance student learning experiences. Please refer to the Nevada STEM Framework for information about high-quality STEM learning experiences.

SECTION II: GRANT OVERVIEW

Eligible Applicants:

K-5 educators and administrators from Nevada public schools, districts, or charter schools.

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[1] Daugherty, Michael K.; Carter, Vinson; and Swagerty, Lindsey (2016) "Elementary STEM Education: The Future for Technology and Engineering Education?," Journal of STEM Teacher Education: Vol. 49 : Iss. 1 , Article 7.

[2] According to a statewide survey of STEM practices conducted in May, 2016 by the NV STEM Advisory Council.

[3] DeJarnette, N. K. (2012). America's children: Providing early exposure to STEM (science, technology, engineering and math) initiatives. *Education*, 133(1), 77–84.

[4] http://osit.nv.gov/uploadedFiles/osit.nv.gov/Content/STEM/A%20STEM%20Strategic%20Plan%20for%20Nevada%20Final(1).pdf

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Project Types:

Funding may be used for various projects. OSIT is seeking innovative and creative projects to engage and retain students in STEM, particularly those from populations traditionally underrepresented. The types of projects OSIT is interested in funding include, but are not limited to:

- Real-world problem-solving projects that need specialized equipment;
- Launching STEM clubs that focus on STEM interest and engagement;
- Developing community-based projects that connect STEM professionals with students for collaboration;
- High-quality experiences;
- Contracting STEM experts to co-develop lessons with you;
- Building a library of texts that show girls and minorities in STEM situations;
- Piloting cross-subject STEM projects or cross-grade-level STEM projects;
- Enrolling in STEM training or professional learning;
- Developing STEM experiences for families; or
- Hosting a family STEM night.

Requests that are not likely to be funded because they're low-quality, can be funded by school budgets, or lack innovation:

- Consumables for construction projects;
- STEM stations;
- 3D printers;
- Classroom laptops, Chromebooks, or tablets; or
- Basic essential supplies needed to address grade-level standards, such as computers, paper, or rulers.

Eligible Uses of Funds:

Funding may be used to purchase:

- STEM-related equipment;
- Specialized technology;
- High-quality kits;
- Supplies related to a specific STEM project;
- High-quality curriculum;
- Student or family transportation;
- High-quality STEM program fees; or
- Other educational materials for use in the classroom by students.

Funding Restrictions:

Funding may not be used for:

- Supplies, technology, or other equipment used solely by educators or adults;
- Salaries or stipends for educators or adults;
- Travel, lodging, or food;
- General office supplies or supplies unrelated to STEM; or
- Indirect costs.

Targeted Grades:

Grant funds must be exclusively used for classrooms in Kindergarten through 5th grades.

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Maximum Award:
$1,500.

Sustainability and Future Funding:
The grant is intended to fund one-time costs for STEM resources that can be used multiple times. Applicants should submit their funding request with no expectation of future grant funds.

Grantee Requirements:
Upon award, the applicant and the school, in collaboration with the school district grants department, will be required to:

- Sign an award contract agreeing to the grant requirements and expectations;
- Provide detailed accounting of how funding is spent, including proof of payment;
- Make lesson plans available to OSIT for use by other teachers in Nevada, if applicable;
- Schedule a school visit with OSIT staff to see your project in action; and
- Provide a report of the project and outcomes.

SECTION III: APPLICATION INFORMATION

K-5 STEM Classroom grants will be awarded to innovative STEM projects seeking additional materials to enhance student learning experiences. Your application should describe a specific STEM project, and the requested expenses should be directly tied to the specific project.

Application Requirements:

READ CAREFULLY: Please respond to each of the following questions in *Project Information* individually in 150 words or less. All questions require a response. In your application, please number your responses to match the number of the question. Please copy each question to the beginning of your response and then respond below the question. Please be as thorough and detailed as possible in your answers within the word limits. The more detail you provide, the better reviewers are able to evaluate your application. Please submit your application as a PDF document. You can download a template of the application here.

Application:

1. Applicant name, phone number, email address, and title.
2. Administrator name, phone number, and email address, if different than applicant.
3. What is the name and address of your school?
4. What is the name of your district? For charter schools please indicate "charter."
5. How many students will this project impact each year?
6. What grade(s) are targeted by the project?
7. Provide a brief overview of your school and the student population you serve. Include your school's mission statement.
8. Please provide an overview of the specific STEM project including what you propose to purchase with grant funds. (Note, the materials themselves should not be the entire project. Describe your proposed project and how the requested expenses will enhance your proposed project. See sample projects here.)
9. Please outline a timeline for the project, including when purchases will be made, when the project will debut in the classroom, and when the project will be evaluated. Include how the project will be repeated after this year.

10. Complete the following table regarding the project goals and evaluation. All answers should be related to describe the project's overall goals and evaluation plan.

Which targeted Nevada Academic Content Standard(s) does this project seek to address?	*(Example: 3.PS.A.1)*
What are the STEM project's goals and desired/expected outcomes?	*(Examples: increasing student STEM identity, increasing awareness of STEM careers, or increasing participation in STEM by students from traditionally underrepresented groups.)*
How will the proposed purchases directly tie to the goals, objectives, and standards of the project?	*(Example: The hands-on materials will allow students to explore the identified physics topics, or this particular kit focuses on manufacturing careers, which is a high-need in my region.)*
How will you assess whether desired goals/outcomes/standards have been met? How will you measure the program's impact on student learning? **Please indicate specific measurement tools beyond State or district tests.** Your evaluation tool should directly relate to your described standards and goals. For example, how will you assess student growth toward the NVACS and/or toward a goal of increasing engagement in STEM?	*(Examples: We will track student attendance, track Family STEM night attendance, provide a STEM identity survey before- and after- the project, or students will model their thinking of the topic throughout the project and the teacher will track their thinking evolution.)*

11. How will the project make the connection between what students are learning and STEM careers? (Are you interested in having an industry partner help in your classroom with this project? If so, please visit Nepris for Nevada to get connected with local STEM professionals.)
12. How will the project increase the number of students participating in STEM, particularly students from underrepresented backgrounds? How will it inspire students to be more interested and engaged in STEM?
13. Please describe how the project fits within the school's long-term plans. Is this project sustainable over several years? Do you have additional funds to implement the program? Will additional funds be required in future years and if so, will your school or classroom budget support those funding needs? Please note, there should be no expectation of future funding for your project from OSIT.

Supporting Documents:

Applicants must provide a signed letter of commitment from the principal demonstrating their commitment to STEM education, such as allowing for collaboration between teachers and departments; a commitment to providing the resources necessary (if any) to use the equipment purchased, including time for professional development; and a commitment to providing required reports to OSIT detailing how the grant was used, the results of the grant on classroom instruction, lessons learned, and advice for other schools. Successful applications have letters of commitment that demonstrate an understanding of the project.

Budget:

Please submit a detailed budget in a separately attached Excel spreadsheet. The budget must include all expenses. Do not estimate, include exact costs. Please include a description of why the item is needed and why the quantity is needed. You will be required to report on your expenditures including providing proof of payment for all expenses that matches the dollar figures in your budget.

Item	Quantity	Cost	Description
Total:			

Examples: The following examples have been provided to help describe what reviewers are looking for in Question 8 and the Budget.

Example Overview (Question 8):
Students will build a small-scale simulated riverbank with the hydro-geology stream table using sand and water. They will place LEGO pieces as buildings along the riverbank. Students will learn how many variables affect the process, such as weather, soil conditions, river's turns and bends, and buildings placement. Students will engineer the designs, make predictions, observations, and conclusions about erosion and the results. Students will enter data in a Chromebook and refer back to measure the data. We will also use the Chromebook to readily access different land formations across the globe and to follow and chart current weathering patterns occurring on the earth in real-time. By witnessing water erosion firsthand, students will not only understand weather, rock formations, and how they work together to form earth's structure but will also have real-world experience in how this knowledge is applicable.

Example Budget:

Item	Quantity	Cost	Description
Chromebook	1	$199	To chart and measure data and access different land formations across the globe and to follow and chart current weathering patterns occurring on the earth in real-time.
50 LB Fine Sand	1	$8.49	For use in demonstrating erosion.
Hydro-Geology Stream Table	1	$1,195	To build simulated riverbanks and make observations about erosion.
Total		$1402.49	

SECTION IV: APPLICATION & SUBMISSION INFORMATION

Submit one (1) electronic copy of the application in a single pdf by 5:00 p.m., Friday, February 18, 2022, to:

Tracey Howard
Governor's Office of Science, Innovation and Technology
T.Howard@gov.nv.gov

Note: Please ensure you have contacted your district's grant department before submitting this application, as some districts have submission requirements.

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SECTION V: AWARD ADMINISTRATION INFORMATION

Grant Review and Selection Process

Eligible applications are reviewed, evaluated, and competitively scored by a review committee. Applications selected to receive a grant award will enter into a contract with OSIT in compliance with the State of Nevada regulations. OSIT reserves the right to award all, part or none of the available grant funding during this grant round.

Grant Commencement and Duration

Project implementation must be initiated within thirty days (30) after funding is awarded. Requests for an exception to this rule must be justified and submitted in writing within thirty days of award. At the discretion of OSIT, the grantee risks losing the award if the project does not commence as required.

All grant funding must be spent by June 30, 2022. Projects must demonstrate sustainability beyond the initial reporting period. By submission of the grant application and acceptance of the award, the grantee is certifying its intention to continue and sustain the program beyond the initial grant implementation award. There is no expectation of funding beyond awarded grant funds.

Fiscal Responsibilities

All recipients of funding are required to identify a fiscal agent if the grantee is not its own fiscal agent. All recipients of funding are required to establish and maintain accounting systems and financial records to accurately account for awarded funds. All grant awards are subject to audits during and within three years after the grant award reporting period has concluded.

Reporting Requirements

All recipients of funding are required to submit fiscal reports detailing with proof of payment how funds were spent. Additionally, recipients must submit detailed reports on the project and outcomes.

Additional Information

All materials submitted regarding this application for OSIT funds becomes the property of the State of Nevada. Upon the funding of the project, the contents of the application will become contractual obligations.

Bidding Process

The grantee must follow all applicable local, state and/or federal laws pertaining to the expenditure of funds. Proof of Invitation to Bid, contracts, and any other pertinent documentation must be retained by the grantee. Likewise, all local, state, and federal permits required for construction projects must be acquired by the grantee within 90 days after the contract is entered into.

Access for Persons with Disabilities

The grantee shall assure that persons with disabilities are not precluded from using OSIT grant funded facilities. Projects must meet requirements as set by the Americans with Disabilities Act.

Maintenance and Operation

The grantee is responsible for seeing that OSIT grant funded projects are maintained and operated in a condition equal to what existed when the project was completed; normal wear and tear is accepted. Maintenance and operations standards

should be adopted upon completion of the project.

Signs

Grantee shall post and maintain appropriate permanent signs or decals upon project sites or equipment acknowledging funding assistance from the appropriate grant fund upon the start of the project or purchase of equipment.

Nondiscrimination

Projects funded with OSIT grant funds shall be available for public use, regardless of race, religion, gender, sexual orientation, age, disability, or national origin.

In any instance that the grant notice, award, rules, regulations, and procedures are silent – prior written approval is required.

SECTION VI: OSIT CONTACTS

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Thank your interest in applying for STEM K-5 Grant funding. You will be contacted if further information is required. Do not begin your project or incur costs until you have received, signed and returned a grant award contract.