

REQUEST FOR APPLICATIONS PK-5 STEM Grant

IMPORTANT INFORMATION

Purpose:	To increase the prevalence of evidence-based, high-quality formal and informal STEM practices and programs in Nevada's elementary schools. To increase the use of hands-on, evidence-based, experiential STEM learning in grades PK-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 PK-5, particularly amongst demographic groups that are traditionally underrepresented in STEM.		
Proposals Due:	December 19, 2022		
Funding Available:	Up to \$1,500 per individual educator ("Classroom Awards"), and/or up to \$20,000 per school ("Program Awards").		
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 <u>T.Howard@gov.nv.gov</u>		
	Lis Dziminski LDziminski@gov.nv.gov		



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 four key strategies identified in the <u>State STEM Strategic Plan</u>⁴.

- 1. To increase the prevalence of evidence-based, high-quality formal and informal STEM practices and programs in Nevada's elementary schools.
- 2. To increase the use of hands-on, evidence-based, experiential STEM learning in grades K-5.
- 3. To increase the percentage of elementary schools that teach science three plus hours per week.
- 4. 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.

"Classroom Awards" for individuals (up to \$1,500) will be used to develop, implement, or enhance specific STEM projects described in the application by the applicant.

"Program Awards" for schools (up to \$20,000) will fund costs associated with purchasing, preparing for, and implementing programs on <u>OSIT's List of Recommended STEM Programs</u>.

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



SECTION II: GRANT OVERVIEW

Eligible Applicants:

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

Eligible Uses of Funds:

For individual educator applicants (applying for up to \$1,500 per educator), funding may be used to purchase:

- STEM-related equipment;
- Technology;
- Kits;
- Supplies;
- Curriculum; or
- Other educational materials for use in the classroom by students.

For school applicants (applying for up to \$20,000 per school), funding may be used for costs associated with one of the programs on <u>OSIT's List of Recommended STEM Programs</u>, including initial professional development expenses. Applicants that bring additional dollars to the project, whether from their own budget or other grant awards will be given extra weight in the scoring process.

Funding Restrictions:

Funding may not be used for:

- Refilling existing programs;
- Fees associated with continuing existing programs;
- Supplies, technology, or other equipment used solely by educators or adults;
- Salaries or stipends for educators or adults;
- Travel (except professional development or student transportation), 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 pre-kindergarten through 5th grades.

Maximum Award:

Classroom Award: \$1,500 per individual classroom/applicant for STEM projects Program Award: \$20,000 per school to implement a STEM program from OSIT's List of Recommended STEM Programs.

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;
- 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

Application Requirements:

READ CAREFULLY: Please respond to each of the following questions below. Answer each question individually, label each question with the corresponding number, and limit answers to 150 words or less. 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. After reading Section III carefully, you can download a <u>Classroom application template here</u> and a <u>Program application template here</u>.

Applicant Information:

- 1. Applicant name, phone number, email address, and title.
- 2. Administrator name, phone number, and email address, if different than applicant.
- 3. Are you applying for a Classroom Award or a Program Award? (Please note, if you/your school are applying for multiple awards, you must submit a separate application for each project/program.)
- 4. What is the name and address of your school?
- 5. What is the name of your district? For charter schools please indicate "charter."
- 6. How many students will this project impact each year?
- 7. What grade(s) are targeted by the project?
- 8. Provide a brief overview of your school and the student population you serve. Include your school's mission statement.

Budget:

9. Fill out the following table describing your budget request. 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
Example:			
Hydro-Geology Stream Table	1	\$1,195	Build simulated riverbanks and make observations about erosion.
Total:			

- 10. 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 roexpectation of future funding for your project from OSIT.
- 11. Do you/your school have additional funds to implement the project/program?



Classroom Award Applications Only:

12. Please provide a summary of your classroom STEM activity/lesson/project/unit, with a focus on describing student experience(s). (Please note: awards are provided for specific STEM projects created and/or used by a classroom teacher, rather than for general STEM supplies. This question should be used by the applicant to describe the specific STEM project.)

Example: 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 building designs, make predictions, observations, and conclusions about erosion and the results. Students will enter data in a Chromebook. 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 erosionfirsthand, 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.

- 13. Please outline a timeline for the project, including when purchases will be made and when the project will debut in the classroom.
- 14. Complete the following table regarding your project's alignment with the Nevada Academic Content Standard(s). Use this space to demonstrate a clear alignment from the standards to the goals, the materials, and the assessment.

Which targeted Nevada Academic Content Standard(s) does this project seek to address?

What are the STEM activity/lesson/project/unit's goals and desired/expected outcomes? (Examples: increasing student STEM identity, increasing awareness of STEM careers,

increasing participation in STEM by students from traditionally underrepresented groups.)

How will the budget expenses directly tie to the goals, objectives, and standards of the project? How do they tie to the school's mission?

(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 measure the STEM activity/lesson/project/unit'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: 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.)

15. How is this project a creative approach to teaching the STEM concepts you normally teach? How will purchases directly enhance STEM teaching more broadly throughout the year in the classroom?

Program Award Applications Only:

- 12. For which program on OSIT's List of Recommended STEM Programs are you requesting funding?
- 13. Briefly describe how the program will be used at your school, including which classes will use the program, how often, and which teachers will receive training to implement the program.
- 14. Please outline a timeline for the project, including when purchases will be made, when teacher training will occur, and when the project will debut in the classroom.



- 15. How will the school use the program to prepare students to become college and career ready?
- 16. 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?
- 17. Please describe how the project supports the school's long-term STEM goals and plans.
- 18. What are your school's plans to sustain the program?

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

SECTION IV: APPLICATION & SUBMISSION INFORMATION

Submit one (1) electronic copy of the application in a single pdf by 5:00 p.m., December 19, 2022, to OSIT: Tracey Howard <u>T.Howard@gov.nv.gov</u>

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, 2023. 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.

<u>Signs</u>

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

Grant Administration Contact: Tracey Howard Governor's Office of Science, Innovation and Technology 775-687-0989 <u>T.Howard@gov.nv.gov</u>

Thank your interest in applying for STEM PK-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.