



REQUEST FOR APPLICATIONS

K-5 STEM EDUCATION GRANT- STEM CLASSROOM EQUIPMENT

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 plus 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:** December 19th, 2017
- Funding Available:** Up to \$1,500 per grant award
- Bidder's Call:** November 15, 2017 at 3:00 p.m.
Dial in Number: 775-687-0999
Passcode: 70987#
- Eligibility:** Educators and administrators from Nevada public schools in the following school districts: Carson City, Churchill, Douglas, Elko, Eureka, Humboldt, Lander, Lyon, Mineral, Pershing, Storey, Washoe, White Pine.
- Website:** Updates to the Frequently Asked Questions document will be posted at <http://osit.nv.gov>. Please check the website regularly for updates. Additionally, information about past awardees can be found on the OSIT website.
- Contact:** Brian Mitchell
775-687-0987 or blmitchell@gov.nv.gov



REQUEST FOR APPLICATIONS –

GOVERNOR'S OFFICE OF SCIENCE, INNOVATION AND TECHNOLOGY

INTRODUCTION:

The Governor's Office of Science, Innovation and Technology (OSIT) of Nevada was established by the Legislature (NRS 223.600) to coordinate and align efforts by K-12, higher education, workforce development, employers to 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.

SECTION II: GRANT OVERVIEW

Eligible Applicants:

Educators and administrators from Nevada public schools in the following school districts: Carson City, Churchill, Douglas, Elko, Eureka, Humboldt, Lander, Lyon, Mineral, Pershing, Storey, Washoe, White Pine.

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



Eligible Uses of Funds:

Funding may be used to purchase:

- STEM-related equipment;
- Technology;
- Kits;
- Supplies;
- Curriculum; 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.

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 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;
- 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 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.



Project Information:

1. Please state your name, phone number, and email address.
2. Are you a teacher or administrator?
3. What is the name 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 STEM project including what you propose to purchase with grant funds.
9. Please outline a timeline for the project, including planning and preparation.
10. Which Nevada Academic Content Standard(s) does this project align to?
11. What are the STEM project's goals and desired/expected outcomes?
12. How will purchases directly tie to the goals and objectives of the project seeking funding?
13. How will you assess whether desired goals/expectations/outcomes have been met? How will you measure the program's impact on student learning? Please indicate specific measurement tools beyond State or district tests.
14. 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?
15. How will the proposal prepare students to become college and career ready, particularly for a STEM career? Will the project attempt to make the connection between what students are learning to possible STEM careers?
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 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.
18. Are you interested in having an industry partner help in your classroom with this project? If so, please describe what type of partner you are looking for. Answering "no" will not affect funding decisions.

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 a 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.



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:

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 first hand, 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., December 19, 2017, to:

Brian Mitchell
Governor's Office of Science, Innovation and Technology
blmitchell@gov.nv.gov

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, 2018. 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

Grant Administration Contact:

Jodi Bass

Governor's Office of Science, Innovation and Technology

100 North Stewart Street, Suite 220

Carson City, NV 89701

775-687-0989

jbass@gov.nv.gov

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.