Application: 0000000480

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Classroom Grant

Summary

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Classroom Grant Application

Completed - Sep 30 2021

Classroom Grant Application

If you have any questions please call the Kellie at the STEM Action Center at 435-757-9595 or email at kellieyates@utah.gov .

*** Are you a teacher or an administrator?**

Teacher

*** Are you from a district or a charter school?**

School District

*** Please specify the name of your district:**

Provo City School District

What is the name of your school or out-of-school program?

Franklin Elementary School

Have you been awarded a STEM Classroom Grant in the past three (3) school years?

No

Do you teach students that live in a rural community?

No

STEM PROJECT DETAILS

*** Which STEM subject will you integrate with your project?**

Responses Selected:

Science

Technology

Engineering

Math

*** How many students will this project impact in the current school year?**

75

*** Which grade(s) is this project intended for?**

Preschool-Kindergarten

*** Please give a complete description of this project.**

Complex Ramp Play:
Young children are in motion and are naturally drawn to things in motion. We have basic ramps in our class that children use to learn basic concepts and vocabulary concerning force and motion. Children continue to show us that they are capable of much more! After they master basic concepts of force and motion they attempt to use materials in the class to try new things. Deflection, angle height, and angle speed are all concepts children have attempted without success. This is because we do not have materials that will help them accomplish their goals and extend their knowledge.
We also want to engage all children. We looked at data to see who used the materials. This data informed us that far more boys than girls spend time with engineering/physics materials. In order to increase the amount of time girls spend with ramps we have requested materials to address this inequity, specifically the gems. We feel they will add to everyone's creativity and STEM skills and address equity.
Substantial time will be given to our force and motion project. This project develops over a long period of time. Children will have direct instruction to learn vocabulary and concepts with hands on time at each lesson.
Materials will also be available each day during play. Teachers will document each type of experience. Learning will be inside and outside of the classroom so that children can generalize their knowledge. This includes ramps in the school, slides, sidewalks with ramps. Many books address this topic and will also be included in our study. Children will see real life application and need form ramps. We will also track the amount of time girls and boys spend at ramp play and do all we can to address the inequality that currently exists.

*** Please include any website links that are specific to your request as a reference.**

https://kodokids.com

*** How will your students benefit from this STEM activity?**

Year after year children show an interest in ramps- specifically force and motion. We have lacked the materials to provide the experiences that will allow them to deepen their understanding, test their theories, extend their learning, and develop more complex knowledge. The specific materials were are requesting will allow for this kind of STEM learning. It will also allow for greater oral language, collaboration, problem solving, and 21st century learning!

*** Which Content Standard(s) does this project support?**

These standards should reference the state content standards as designated by the Utah State Board of Education. Include the actual title for each standard, such as "Math: RP 7.2.2"

Early Learning Standard Science
Strand 4: Matter and Motion
Standard 3-4 yr. 4.2

*** How does this project take a creative approach to extend what you normally do in the classroom?**

Children bring creativity to the class. When children have ideas of how to use materials they are creating. It is our belief that this act of creation increases curiosity, engagement, attention and focus, and intelligence.
We will use our own creativity in the classroom as we co-construct and facilitate children's learning. Following each child's led after concepts have been taught enhances children's ability to learn in their zone of proximal development. Our approach covers many domains of learning for young children. This includes physical, cognitive, language, and social emotional. We also include experiences involving force and motion with arts, movement, games, and literacy. One of our social emotional experiences will be for the children to problem solve how to help a friend in a wheelchair get onto the play equipment. Children develop empathy and become emotionally engaged in this piece of our project. We have an experience where children need to move some heavy boxes from the table to the floor, another one where children paint with marbles as we discuss angles and motion, and another one where they make slides in our sandbox for the toy people.
We anticipate that children will build castles with traps or slides, water parks, skateboard ramps, and many other things we have not imagined!

*** How is this project sustainable over several years?**

This project will be extended year after year. For the past 10 years children have expressed an interest in learning about force and motion. It continues to be included as a standard and we plan to continue this project each year for many years to come!

*** What additional funding support are you receiving to be able to implement this program?**

None

*** How will you measure the outcomes of this project related to student learning? Please be specific in your measurement tools, which should include more than summative assessment(s).**

We have multiple tools for assessing student learning. We will include vocabulary/oral language, equity, and STEM concepts. Assessments will include a checklist, checking for conceptual understanding throughout the project and photographs to document learning. Children will also document they're learning by drawing, making models, and explaining their own thinking. As collaborative documentation, teachers and children will make a Project Floor Book that follows our force and motion learning journey. This is especially helpful to young children. It provides a visual way for them to reflect on experiences. Children will be prompted to use new vocabulary as they discuss what they see and have experienced. We will informally include data on collaboration, problem solving, innovation, and creativity.

*** Please outline the schedule for this project, including planning and prep.**

Force and Motion:

Planning/Prep-January- February

Project- March- April

PROJECT BUDGET INFORMATION

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Enter information about your project budget. Please include ALL expenses, including shipping and handling. We are unable to pay for sales tax with these grant dollars. DO NOT INCLUDE ESTIMATIONS. Awards are based on the exact cost of the project. Amount of funding cannot be increased once awarded. NOTE: STEM AC RESERVES THE RIGHT TO FUND YOUR REQUEST AT A LOWER AMOUNT. THe MAXIMUM request amount is $1500.00

	Item name	Cost
	Swiss Ramp Stands	299.00
	Swiss Ramp Stands	299.00
	Deflector Set	58.00
	Deflector Set	58.00
	Gem Dominoes	199.00
	Gem Disc	199.00
	Wooden Stacking Cones	50.00
	Shipping	35.00
Total		1197.0

**** The STEM Action Center office reserves the right to award funds equal to or less than the applicant’s request. If awarded, recipients will need to sign a contract agreeing to all reporting requirements, which include submitting receipts, photo or video documentation of the funded learning experience, and a short project completion report (template provided).**

APPLICATION AGREEMENT DETAILS:

The signatures below indicate the agreement between the STEM Action Center and School or District to engage in all the terms and conditions described in the application. All parties believe that the responsibilities and efforts as described previously reflect reasonable judgments as to what will be involved in efficient and effective conduct of the research. By signing this application, applicant ensures all information is complete and accurate.

The application will be considered incomplete until all signatures are received.

*** APPLICANT SIGNATURE:**

*** School, Program or LEA ADMINISTRATOR SIGNATURE:**

Please check with your school leadership to determine whose signature you need. Several districts, including (but not limited to) Jordan District, need to provide district level acknowledgement of grant applications.