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The Amphi Foundation is a 501(c)(3) organization. Please contact us directly for our Tax ID number.

7 March 2018

Michelle Martin
Nash Elementary

Dear Michelle,

Since 1983, our mission has been to promote academic excellence through the expansion of resources that enrich the education, development, and well-being of the students of the Amphitheater Public School District. The Amphi Foundation has, for most of its history, focused primarily on services that help make it possible for students to attend school and participate in activities and in recent years we have added Classroom Grants to support our students' teachers and their classrooms. Our Scholarships & Grants committee is proud to honor your grant request. Congratulations!

Funding for this grant was provided by the Nova Home Loans Arizona Bowl. Our hope with this partnership is that funding will be matched in 2018 and that the Amphi Foundation will receive this gift again next year and beyond. You can help us by sharing photos, thank you notes and success stories about the impact of this funding so that we can share with our partners at the Arizona Bowl.

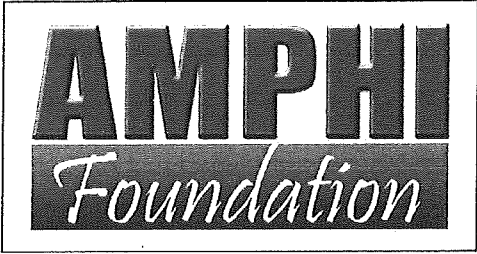
Please keep the following items in mind as you move forward with implementing your project and purchasing materials.

- If, for some reason, you do not proceed with this project, we ask that you return this money to the Amphi Foundation so that we can assist another classroom in need.
- Please be sure to follow district and school procedures for procurement.
- For any equipment or durable goods that have been purchased with this funding we ask that you consider gifting items to an Amphi colleague or teaching partner should you choose to leave the district.

On behalf of the Amphi Foundation Grants & Scholarships Committee, thank you for all that you do!

Best Regards,

Leah Noreng



Classroom Grant Application
Please complete, sign, and return to amphifnd@amphi.com

Project Title:	Choo! Choo! Full STEAM Ahead!		
Applicant(s):	Mrs. Julie Gates, Mrs. Susan Luciano, Ms. Michelle Martin, Mrs. Elizabeth Williams		
Project Director:	Ms. Michelle Martin		
Telephone Numbers:	520 696-6503		
Project Site/School:	E.C. Nash Elementary		
Project Duration:	Start Date:	August 2018	Ending Date: May 2019
Impact:	# of Students:	60+	# of Teachers: 4
Ages/Grades:	1 st grade		
		Total Cost:	\$ 959.75
		Less Funding from Other Sources*:	0
		Total Grant Request:	\$ 959.75
*List Other Funding Sources	_____		
Signature and Date:	_____		

TECHNOLOGY CERTIFICATION – required for grants requesting technology components

We CAN / CANNOT (circle one) support the technology and other infrastructure required for successful implementation outlined in this grant.

Technology Integration Specialist Signature: N/A Date: _____

PRINCIPAL APPROVAL:

After reviewing this application (principal please initial one),

OK No additional resources (including maintenance and repairs) are necessary to fully implement the goals of this application

OR

Additional resources are necessary in the approximate amount of \$ _____ (total, per year, etc.) and will be funded by other sources.

This project is / is not eligible for extra-curricular tax credit funds. (select one)

Applicant has shared this application with me and (DO) DO NOT (circle one) support this application.

Principal's Signature: Date: 2/28/18

Full STEAM Ahead, Choo, Choo!

Summary: Brief, succinct overview of the project, including the estimated number of students directly impacted. Describe in lay terms. Do not assume the committee knows the programs, technology or other topics you are discussing. Statement that could be used to explain project in a news release.

The Full STEAM Ahead Project will enable students to increase their knowledge in science, technology, engineering, art, and math using hands-on activities. During the 2018-2019 school year, this project will allow students to be creative and spark imagination while building science, technology, engineering, art, and mathematical skills, known as STEAM.

This project will have the ability to impact approximately 60 Title I first grade students at E.C. Nash Elementary during this 2018-2019 school year. By exposing elementary students to STEAM activities with various hands-on learning opportunities, they will be provided with a solid foundation in the STEAM areas, allowing for a greater appreciation for these fields as they continue in their schooling.

Project need, purposes and objectives: Describe how the project will enhance the learning environment and promote academic excellence. List the subject areas involved in the project and how the project will enhance the students learning experience in these areas.

Need:

Early research studies on ground-breaking STEAM curricula in the U.S. have demonstrated that learning activities integrating science, technology and the arts successfully engage minority and disadvantaged students, resulting in improved literacy and numeracy competencies (Clark, 2014; Stoelinga, Silk, Reddy & Rahman, 2015). STEAM education creates critical thinkers, increases science literacy, and enables the next generation of innovators. This innovation and science literacy depends on a solid knowledge base in the STEM areas.

Purpose:

The purpose of Full STEAM Ahead Project is to increase student understanding in STEAM by creating a variety of hands-on learning opportunities. The project will extend learning by providing students with opportunities to acquire 21st-century skills which include critical and creative thinking, collaboration and communication. This will give students the opportunity to work through the design process and generate new inventions.

Objective:

The goal of this project is to enable students to become inventors where they can succeed in school and develop their skills that will prepare them for college. With each hands-on learning opportunity, students will be able to construct, design, explore, think critically, and be creative problem solvers.

Project activities: Description of the activities the award will facilitate and that will produce the objectives stated in the proposal.

This project is divided into three parts:

The 1st grade team will create a mobile Makerspace for students with materials from Treasure for Teachers. A Makerspace is “a collaborative learning environment where students can come together to share materials and learn new skills.” In order for this to be a successful endeavor, some of the 1st grade teachers will become members of Treasures for Teachers. This non-profit organization’s mission “is to provide educators with hands-on interactive learning materials for use in their classrooms through donated and re-purposed items.” (Attachment 1) By gathering these donated items and storing them in an 8 drawer rolling cart, each class will have an opportunity to use the mobile Makerspace in their own classroom. Providing students with a Makerspace will encourage play, tinkering, creativity, and experimentation.

Secondly, the Full STEAM Ahead Project will include the following STEAM kits.

- **Real World STEM Kit**-- Students will construct a parachute, design a leak-proof roof and engineer a raft. Students will explore the design process and solve real world problems while following the engineering process, *plan, create, test, and improve*.
- **Design, Build, and Engineer Kit**- With this engaging kit, students will build bridges, create vehicles, and design buildings. Each set contains real life photo cards along with hands-on manipulatives to create their own structures.
- **STEM Science Kit** - Students will be using scientific skills to explore magnets, motion, and things that float and sink as they complete hands-on experiments and engineering activities.

- **Chain Reaction Kit**— Students will explore STEM concepts such as gravity, force, and momentum through the use of ramps, pendulums, hammers and more. This set allows for open- ended building opportunities as well as for differentiated instruction with the use of leveled challenge cards.
- **Code and Go Resource Mouse (Set)**-- In this set, Colby, a programmable robot mouse, introduces students to the world of coding. This kit includes cards for sequencing and programming providing endless possibilities.
- **Code and Go Resource Mouse (Single)**-- In this set, Jack, a programmable robot mouse, complements the Code and Go set. Colby and Jack's adventures are infinite.
- **Coding Robot**- In this set, Botley, the coding robot introduces students to coding in a simplified way. Students will navigate through a self-constructed maze. Again, the possibilities for coding are endless.

Lastly, a small portion of this grant will be used to continue education in the STEAM areas by providing a year membership to, *Science and Children*, a National Science Teachers Association journal. It will become the responsibility of the project director to share new insights, ideas, and other pertinent information from the NTSA journal with the 1st grade team. The importance of continued knowledge in the STEAM areas allow teachers to be attentive of innovative concepts in the field. Together, these three components will help build a learning environment that is highly motivating and creative.

Plan for evaluation and follow-up: The standards of measurement to be used to determine if goal(s) have been achieved and timeline for assessment of results.

By May 2019, the first grade students involved in Full STEAM Ahead Project will increase their understanding in science, technology, engineering, art, and math. Depending on the activity, this may be measured with both formative and/or summative assessments. Formative assessments will be used to monitor student comprehension during their learning. Formative assessments will include reflections, engineering journals, and using a STEM Challenge Worksheet or a Scientific Method Handout to record and reflect on their designs, see

attached. (Attachments 2 & 3). In addition, summative assessments will be used to determine what students have learned over time. Summative assessments may include a portfolio, presentation of activity, or a teacher-created test. All assessments will focus on, and align with state standards.

Grant Proposal

Budget Worksheet

Item Description	Cost Per Item	
<u>Lakeshore Items</u>		
Real World Stem Kit	\$149.00	
Design, Build, Engineer Kit	\$125.00	
Stem Kit (magnets, motion, float/sink)	\$149.00	
Chain Reaction	\$79.99	
	\$498.99 + \$30.44 tax	\$529.43
<u>Amazon</u>		
Code and Go Resource Mouse (Kit)	\$34.98	
Code and Go Mouse	\$18.00	
Coding Robot (Bentley)	\$65.95	
	\$118.93 + (\$7.79 tax)	\$126.72
<u>Amazon</u>		
STEAM Books (see attached)	\$ 91.91	\$ 91.91
<u>Treasures For Teachers</u> Membership	\$35.00 each x 2 teachers	\$70.00
<u>Treasures For Teachers</u> 3x year Fill a Bag	\$5x 3 each x 2 teachers	\$30.00
<u>NSTA Journal</u>	\$79.00	\$79.00
8 drawer rolling cart	FREE	
<u>Walmart</u>		
Plastic Shoe Containers (40)	\$ 31.92 + \$ 1.95 tax	
	-\$ (1.18) pick up savings	\$32.69
Total Expenses for entire project		\$ 959.75
Funding from other sources		\$ 0
Foundation grant request amount		\$ 959.75

Donations by Amphi Foundation

School	Teacher	Amount	Project
AHS ,	Wendy Ousley	\$ 757.50	Folklore and Mythology Seminar
AMS	Tamara Paulson-Midgley	\$ 974.03	Percussion Power
Coronado	Terry Duggan	\$ 1,000.00	Steam-azing Lab
Coronado		\$ 967.16	Classroom Games
Donaldson	Rachelle Ferris	\$ 991.00	Donaldson Maker Lab
Harelson	Becky Cozart	\$ 704.95	PE Program
Harelson	Monika Arnold	\$ 435.78	Digital Microscopes in the Classroom
Holaway	Capella Hauer	\$ 995.00	Summer Home Visit Kits
Innovation	Danielle Swartz	\$ 1,000.00	STEM leveled readers for K-1 Guided Reading Library
IRHS	Jenny Een	\$ 1,000.00	Freshman Focus: Ninth Grade Transition Restriction Digestion, Purification of DNA Fragments, and
IRHS	Mark Joseph Pincus	\$ 999.55	Cloning into Plasmids
Nash	Michelle Martin	\$ 959.75	Choo! Choo! Full STEAM Ahead!
Painted Sky	Mercy Pemberton	\$ 953.10	Edison Robots for Painted Sky Second Grade
Rio Vista	Hilary Wiechert	\$ 849.00	Fifth Grade Novel Studies
Wilson	Beverly Teran	\$ 771.60	Collaborative Mixed Media Mural
Wilson	Karen Maspero	\$ 1,000.00	Middle School Math Manipulatives