REPORT 2018 October Cycle

GENERAL INFORMATION

Organization Information

Legal Name:		Federal Tax ID#:	
Science Mill		46-0600789	
Address:	**City:**	**State:**	**Zip Code:**
PO Box 38	Johnson City	Texas	78636
Website:		**Fax:**	
www.sciencemill.org		(612) 201-4134	

Head Of Organization

Name:	Title:
Bonnie Baskin	President
E-Mail Address:	**Phone:**
bonnie.baskin@sciencemill.org	(512) 660-4245

Application Contact

Name:	Title:	E-Mail Address:	Phone:
Holly Barton	Director of Strategic Alignment	holly.barton@sciencemill.org	(512) 660-4245

REPORT INFORMATION

Report Funding Cycle:	Report Date:
2018 October Cycle	09/30/2019 12:00 am

1: Please include in your report the dollar amount of the funds that were awarded, the date they were funded and what the funds supported.

Awarded Amount: 20,000	Date: 10/24/2018

2: Were the objectives cited in your original proposal met? Please address each started objective and how it was met.

We believe that the objectives of this grant were met. By offering two science- and technology-rich summer camps to economically disadvantaged students in low-income San Antonio communities, we have given them the opportunity to experience an immersive STEM enrichment program that is focused on real-world, STEM career challenges. Students learn, through hands-on experiences, the excitement of "doing science." Daily activities included hands-on engagement with subject matter, critical problem solving, team challenges, project-based designing and, through reflective discussions, students learned about the opportunities that are available for them in future STEM careers.

Learning is broader than schooling, and out-of-school STEM enrichment programs play a crucial role in closing the opportunity gap for students living in low-income communities. Our programs are an experiential approach to learning about diverse opportunities in STEM careers. Based on building student self-confidence, self-esteem and through hands-on team-based challenges, they gain knowledge and excitement for STEM job opportunities. Utilizing the museum as a testbed for creating new strategies for student engagement in STEM and STEM careers, we have created a roadmap for how we, as a museum-based center for out-of-school learning, play an important role in growing the number of students in Texas that will be entrepreneurial and critical thinkers in the future.

3: Please explain any changes from the original proposal and the circumstances that lead to the modification of the objective.

The objective of our original proposal was not modified and our post-camp results demonstrated successful outcomes in all categories that we measured. Please see our camp impact report at https://www.sciencemill.org/2019campimpact.

Our programs are developed by in-house educators and professionals (engineers, educators, scientists, entrepreneurs, etc.) and are designed to introduce and immerse students in STEM scenarios to learn what it means to be a STEM professional. Our curriculum utilizes best practices for effective STEM education. Emphasis is placed on activities and challenges that place students in STEM careers through problem solving scenarios with appropriate emphasis on team-based work. Kids not only utilize the tools of STEM professionals but will begin to understand the context in which those tools are used. Our innovative curriculum engages kids in hands-on, minds-on, exciting learning opportunities and allows them to imagine themselves as future participants in a STEM workforce.

4: What needs were addressed?

Summer STEM camps play important roles in increasing students' awareness and interest in learning. For low-income students, who lack access to high quality STEM enrichment programs, the impact can be substantial and a significant factor in why these students are less likely to graduate from high school or enter college. They are often unable to envision themselves in a future STEM career for a variety of reasons - lack of access to STEM programs, little exposure to individuals from similar backgrounds in STEM careers, and limited knowledge of career pathways and opportunities. Students struggle to see the connection between their in-school education and the relevancy of their courses to both their life and potential careers. By offering science- and technology-rich programs to students in underserved communities, these students are able to experience the same level of enrichment as their higher income counterparts.

Our programs are located in economically disadvantaged communities and taught by local science teachers aided by local high school students. These instructors are brought to the Science Mill museum where they go through rigorous professional development training on our STEM career curricula, as well as the pedagogy of inquiry-based learning, before returning to their communities to lead our programs. As a result of the training, they increase their knowledge of the opportunities for students in future STEM careers and receive training in innovative methods of STEM engagement and career integration that they can bring back to their classrooms.

5: What method of evaluation did you use to monitor and measure the project's outcome and what are the result?

Our STEM summer camp outcomes are measured by pre-, post-, and daily surveys, developed to track metrics specific to the camper experience. Each summer camp and the collective summer camp program are analyzed by camper gender, race/ethnicity/origin, school/school district camper is attending, previous camp experience, grade breakdown, and STEM metrics. Data and analyses are reviewed and evaluated to establish objective evidence of successes and challenges and used to improve subsequent camps. The camp criteria we have identified to be important indicators of success and our measures of success as determined by camp surveys are the following:

2019 Results

o95% of campers believe in their ability to be successful in a STEM career [STEM identity].

o96% of campers expressed a positive attitude towards STEM [attitude towards STEM].

o70% of campers are interested in working in a STEM career or job [STEM career interest].

oPrior to beginning camp, 79% of campers expressed an understanding of careers in STEM, however, upon camp completion, 96% of campers held an understanding of careers in STEM [career understanding and awareness].

o83% of campers are more interested in STEM now than before they came to summer camp [STEM subject matter interest].

o81% of campers are more interested in taking further STEM classes or joining STEM extracurricular activities/programs after completing camp [STEM programming interest].

o96% of believe in their ability to succeed in the face of challenges [self-efficacy].

o93% of campers made new friends [social experience].

Please see our camp impact report at https://www.sciencemill.org/2019campimpact for more information.

6: Do you plan to continue this project, and if so, how do you plan to sustain it?

Funding sources are critical in providing economically disadvantaged students STEM equity programs. Historically, funding of our program has been from individuals, private and corporate foundations, and revenue from museum admissions. Each year we are growing our portfolio of supporters to include additional foundations, individuals, state and federal grants, and most recently funding directly from low performing school districts. By continuing to partner with well-respected, education-focused organizations in the underserved communities, we can leverage the strength of each partner and create a holistic approach to STEM enrichment for elementary and middle school age students.

As we move forward expanding the number of programs offered, we will be able to follow students through the program and collect longitudinal data on student outcomes. We believe that with this data and continuing strong outcomes, we will be able to grow financial support through an increasing number of diverse funding channels.

7: Please provide any other comments ot information relevant to this grant.

The experience and knowledge gained from creating and running these camps over the last 5 years has been invaluable to us and gives us the confidence to expand our program in the coming years by creating a year-long program of STEM enrichment for economically disadvantaged students in geographically dispersed communities throughout south and central Texas.

By giving teachers in their community the training, resources, curricula and tools to engage, excite and encourage students in STEM careers, we have empowered change at the local level. We believe our program can be exported to in-need communities throughout Texas and beyond.

Please see a video recap of our 2019 summer camp program at https://www.youtube.com/watch?v=idrO_fFIrYQ.

8: Please provide an updated detailed projected budget with expenses for the received grant. Also include the totals for the budgeted and actual amount. Explain any discrepancies between the budgeted and the actual expenses for the project.

Line Item Description	Total Project Funds Allocation	Najim Requested Funds	Project Funds Actual	Najim Funds Allocation
Supplies-Consumables	$23800	$1000	$19,441	$1,440
Equipment/Tech/Capital	$20,275	$3000	$19,035	$4,550
Staffing: Training and Teaching	$119000	$6000	$86,780	$6,428
Transportation-Museum Field Trip	$18800	$1000	$30,100	$1,350
Family Engagement	$10000	$750	$11,700	$867
Evaluation	$15000	$750	$3,000	$222
Support/Admin	$30000	$2500	$25,000	$1,852
Curriculum Development	$40000	$4000	$48,030	$3,558
Overhead/Insurance	$13000	$1000	$9,499	$515
TOTAL:	**$289,875**	**$20,000**	**$252,585**	**$20,782**

Signature

Bonnie Baskin