



Daviess County Community Foundation Advancing Out-of-School Learning Grant Final Report

The following is an overview of the current status regarding granting activities and details regarding implementation of the program management grant:

DAVIESS COUNTY

Number of Children Served

The program is available to serve all area students, and over 150 have taken the opportunity to attend programming since September.

During 2019 the library intends to keep even more detailed statistics for open STEM lab, but reports 800 children in and out of the open lab.

Attainment of Goals

The goals set forth in the grant application are as follows:

1. Youth will develop an interest in STEM.

From Washington Carnegie Public Library—"We have certainly seen an interest in STEM. All of our programs were full/overflowing and parents were already asking about 2019 STEM program registration."

2. Youth will develop capacities to productively engage in STEM.

"The open STEM lab has shown that participants are actively and productively engaging in STEM. They are working in teams to solve problems and using their own skills to master concepts. Both programs and STEM lab are focused around the individual capability to use technology, engineer solutions, experiment with science, and master math."

3. Youth will value the goals of STEM.

"We have seen youth value STEM through asking their parents to register them for programs and take them to open lab times. We recently had an engineer do a program about his job, how it relates to STEM, and why it's important. Many of the participants asked how they could become an engineer. While we are seeing the early signs of valuing STEM, this is a long-term goal for our program. We would like to see our STEM participants think about how they can help their community and beyond using STEM. We would also like to see them think about STEM careers. "

Successes and Challenges

“We expected that the STEM program would be well received, however we did not expect to immediately have such a large turnout to programs. We anticipated 20 participants for each of the four age groups, but we ended up with participants on the waiting list. This was both a significant success and a challenge as we had to figure out how to include all participants into programs. We wanted to include any child interested in STEM in programs, so we purchased more tables to fit more participants and we also added extra sessions of programs.

Another unexpected result that we've encountered is that adults would like to be involved in STEM programs. They are offering to volunteer and they are also requesting programs for themselves. We have had multiple adult library patrons ask when we will have a program for them.”

Measurable Outcomes

As outlined in grant application:

- 1. 100% of students feel inspired.**
- 2. 100% of students feel confident with skills, and have knowledge to pursue STEM in the future.**

“We have seen the first and second outcomes from the amount of sign-ups we have had and speaking to participants about the programs/open STEM lab. “

- 3. Schools will see 50% improvement in scores of STEMspiration participants as well as greater engagement in the classroom.**

“In September our STEM programs officially began, so we are allowing more time for participants to be involved in STEM before following their performance in school. Our initial reports from teachers have been that their students come to school eager to learn more about STEM topics.”

- 4. 100% of Educators will recognize the value of the public library in relation to STEM education.**

“The schools have shown an appreciation for STEM by inviting the program coordinator to come into their classrooms to do experiments with the students. Veale Elementary has had the coordinator to their school three times for STEM.”

- 5. 100% Families will feel comfortable giving feedback to the library and feel appreciative of free educational opportunities.**

“Families have felt comfortable giving feedback about how they feel the STEM programs have been.”

6. At least 5 community philanthropic organizations or businesses will agree to support STEM financially in the future.

“Outcome number six is one of our long-term goals. We have already begun planning an event to talk to businesses about supporting STEM at the library.”

7. 100% of library staff will feel more comfortable with science and STEM topics.

8. At least one other staff person will decide to become a STEM coordinator assistant.

“Outcomes seven and eight are under way also. The library has accepted STEM and volunteer ideas for programming. All staff members are familiar with program topics for the month. Almost every staff member has either helped with programs in some way or volunteered in the STEM lab.”

Lessons Learned

“As the program coordinator, I have learned that children enjoy STEM topics. While they may struggle or not pay attention to STEM topics in school, I have seen them participate in the hands-on activities with vigor. This was an important lesson to learn because then I could help teachers by letting them know that their students might need more hands-on activities to keep them interested in the topics. If I had known that the turnout would be as large as it is, I would have made sure to have more than one session for each age group when sign-ups started in September.”

Story of Impact

“One particular story stands out when I think of an impacted child. We will call this participant E*. E came into STEM because the mother noted that the child was interested in technology and video games. However during other library programs, E was not well behaved and a bit of a problem child. So when E was signed up for STEM, we were anxious about how the child's behavior would be during programs. E came into the first program, polymer bouncy balls, not thrilled that the mother made the child attend. Once we actually got into the program, E was reluctant to participate. However when E saw the finished product excitement ensued! E was thrilled at the possibility of being a scientist and making something useful. After that, E came to open STEM lab every week and participated well with the other attendees. E was also a better attendee at other library programs. E is now one of the biggest attenders of STEM programs and is already registered for spring 2019 programs. This impact lets me know that sometimes kids are acting out because they haven't found the outlet for their mind. “

*Name not mentioned for privacy.

Expenditures*

\$412 Advertising - This was to print brochures announcing the first fall session of the programs, project details, etc. For spring 2019 we simply made handouts for schools on our copy machine.

\$1,511.74 Books - We were able to add some wonderful sets of books to the library collection and the checkouts on them have been wonderful!

\$892.39 Lab Décor - Setting up our STEM Lab did require some "pretties" to make the room appealing to all ages. We purchased posters, magazine racks, organizing racks just to name a few.

\$5,925.04 Furniture - Purchases were a large cabinet with a lock to store STEM kits and admin files, and 12 dry-erase top tables.

\$624.98 Meeting Expenses - STEM coordinator attended four workshops for professional development.

\$112.84 Office Supplies - Pens, business cards, etc.

\$9,637.61 STEM Lab Equipment - Examples of items purchased: 3D printer, electrical receptacle for a donated robot from Vincennes University, iPads, snap circuits, and a plethora of other science, technology, engineering and math hands on stuff.

\$2,497.34 Program Supplies - Every one of specific programs we had took supplies. For example when we made bouncy balls we had to purchase the ingredients to make them.

Total Expenditures \$21,613.94

The remaining \$3,386.06 is scheduled to be spent by the end of March 2019 on program supplies, staff professional development and a few pieces of STEM Lab equipment."

*Detailed expenditure report attached

Evaluation

The Daviess County Community Foundation is extremely pleased with the library's STEM programming and deems it successful. The library is committed to sustaining the program beyond the pilot period by tapping into other philanthropic and corporate funders who view high-quality afterschool programs as a smart investment.

The library has outlined a 5 for 5 Sustainability Plan. This would entail 5 funders promising \$5,000 annually with the library supporting the project via staff, space, etc. The organization would like to involve corporate funders who have aligned interests of growing a more qualified workforce.

The Community Foundation recognizes that the library is a strong partner in addressing the need for STEM education in our community. As previously reported, the Daviess County

Community Foundation awarded Washington Carnegie Public Library a \$3,000 grant for a spring 2019 STEM conference. Plans are currently being finalized for this conference. The organization reports they've received many inquiries from area schools and other libraries that are interested in attending.

In January 2019, the Daviess County Community Foundation Advisory Board approved a request for funding of year two of the STEMspiration program in the amount of \$22,500. Providing continued support through the pilot period will allow the library to continue to collect quality data that will be necessary to obtain other funding partners as outlined in their sustainability plan.

**Local newspaper article and photos of STEM events are attached to this report.*

Beg. Grant Balance

\$ 25,000

Date Ordered	Vendor	Item	Category	Qty	Cost	Total Cost	
09/01/18	Ewing Printing	Brochures	Advertising		412.00	\$412.00	\$412.00
04/11/18	ABDO	Amazing Super Simple Inventions	Books	6	113.70	\$113.70	
04/11/18	ABDO	Cool Industrial Arts	Books	6	94.70	\$94.70	
04/11/18	ABDO	Cool Makerspace Gadgets and Gizmos	Books	6	119.70	\$119.70	
04/11/18	ABDO	Super Simple Earth Investigations	Books	6	113.70	\$113.70	
04/11/18	ABDO	Super Simple Engineering Projects	Books	6	113.70	\$113.70	
04/11/18	ABDO	Super Simple Science at Work	Books	6	113.70	\$113.70	
07/01/18	Ingram	STEM books	Books	1	483.36	\$483.36	
07/01/18	Baker and Taylor	STEM Books	Books	10	359.18	\$359.18	\$1,511.74
07/30/18	Cailey	Frames and supplies - Hobby Lobby	Décor	1	229.15	\$229.15	
07/10/18	Etsy	Lightswitch	Décor	1	16.25	\$16.25	
07/10/18	Amazon	Organizer Tray	Décor	1	8.49	\$8.49	
07/10/18	Amazon	Magazine Racks (Set of 3)	Décor	1	22.98	\$22.98	
07/10/18	Amazon	Alligator Clips	Décor	1	6.78	\$6.78	
07/10/18	Amazon	Hose	Décor	2	28.63	\$56.59	
07/10/18	Amazon	Magnets	Décor	1	11.45	\$11.45	
07/19/18	Everblock	Lego Desk	Décor	1	434.34	\$434.34	
03/29/18	Demco	Posters	Décor	1	69.41	69.41	
04/25/18	Nasco	Photographic Periodic Table	Décor	1	36.95	\$36.95	\$892.39
04/25/18	Demco	Tennsco Cabinet Casters	Furniture	1	95.00	\$95.00	
04/25/18	Demco	Tennsco See Thru Door Cabinet-assembled	Furniture	1	459.32	\$459.32	
04/25/18	Demco	Tables-Dry Erase Flip	Furniture	6	500.00	\$3,000.00	
09/15/18	Demco	Dry Erase Tables	Furniture	6	2,370.72	\$2,370.72	\$5,925.04
04/20/18	VISA	STEMcon Fee	Meeting Expenses	1	225.00	\$225.00	
04/20/18	VISA	State Stem Meeting	Meeting Expenses	1	157.55	\$157.55	
05/19/18	State Library	Indiana State Museum trip	Meeting Expenses	1	113.81	\$113.81	
10/23/18	Cailey	Meeting for STEM	Meeting Expenses	1	64.31	\$64.31	
11/01/18	Jasper	Meeting	Meeting Expenses		64.31	\$64.31	\$624.98

05/16/18	Walmart	Pens	Office Supplies	1	27.86	\$27.86	
07/02/18	Vistaprint	business cards	Office Supplies	1	31.98	\$31.98	
03/29/18	Demco	Labels and dispenser	Office Supplies	1	45.01	45.01	
07/10/18	Amazon	Pencil Holders	Office Supplies	1	7.99	\$7.99	\$112.84
04/22/18	Amazon	Rock Candy Sticks	Program Supplies	1	9.99	\$9.99	
04/24/18	Amazon	Rock Candy Sticks	Program Supplies	1	9.99	\$9.99	
04/25/18	Nasco	ABO Blood Typing Kit	Program Supplies	1	89.95	\$89.95	
04/25/18	Nasco	Human Genetics Taste Paper	Program Supplies	1	7.95	\$25.08	
07/17/18	Dollar Tree	Scribble Bots Supplies (Toothbrushes)	Program Supplies	48	1.00	\$48.00	
07/17/18	Dollar Tree	Scribble Bots (Decorations)	Program Supplies	32	1.00	\$32.00	
07/19/18	Amazon	Supplies	Program Supplies	1	8.48	\$8.48	
08/01/18	Cakes & Crumbs	Cookies for open house	Program Supplies	200	144.00	\$144.00	
10/26/18	Amazon	Osmo items, filament, stem kits	Program Supplies		250.00	\$250.00	
08/31/18	Discount School Supply	Bouncy Ball Supplies	Program Supplies	1	80.96	\$80.96	
10/01/18	Amazon	Various	Program Supplies		280.00	\$280.00	
10/15/18	Walmart	Various	Program Supplies		11.91	\$11.91	
10/30/18	Walmart	Spooky Stem	Program supplies		79.74	\$79.74	
11/01/18	Walmart	Various	Program Supplies		53	\$36.22	
03/29/18	Demco	Cubelets	Program Supplies	1	293.54	293.54	
04/20/18	VISA	Educational Innovations	Program Supplies	1	227.00	\$277.00	
06/06/18	Amazon VISA	Rock Candy supplies	Program Supplies	1	253.02	\$253.02	
06/06/18	Walmart	Rock Candy supplies	Program Supplies	1	77.08	\$77.08	
09/25/18	Cailey	Animation packs, chargers	Program Supplies		57.38	\$57.38	
09/01/18	Steve Walden	Frankenstein program	Program Supplies	1	380.00	\$380.00	
10/23/18	Cailey	Various	Program Supplies	1	53.00	\$53.00	\$2,497.34
04/25/18	Amazon	Makey Makey	STEM Lab Equip.	2	49.95	\$99.90	
03/24/18	Jeff Gumbel	Laptop for STEM coordinator	STEM Lab Equip.	1	898.00	\$898.00	
05/29/18	Prusa VISA	3D printer, filament, shipping	STEM Lab Equip.	1	1,644.86	\$1,644.86	
07/01/18	Jeff Gumbel	STEM ipads	STEM Lab Equip.	2	745.00	\$745.00	
07/01/18	Jeff Gumbel	STEM laptops	STEM Lab Equip.	3	1,392.00	\$1,392.00	
08/01/18	Jeff Gumbel	4 ipads and cases	STEM Lab Equip.	4	1,639.00	\$1,639.00	

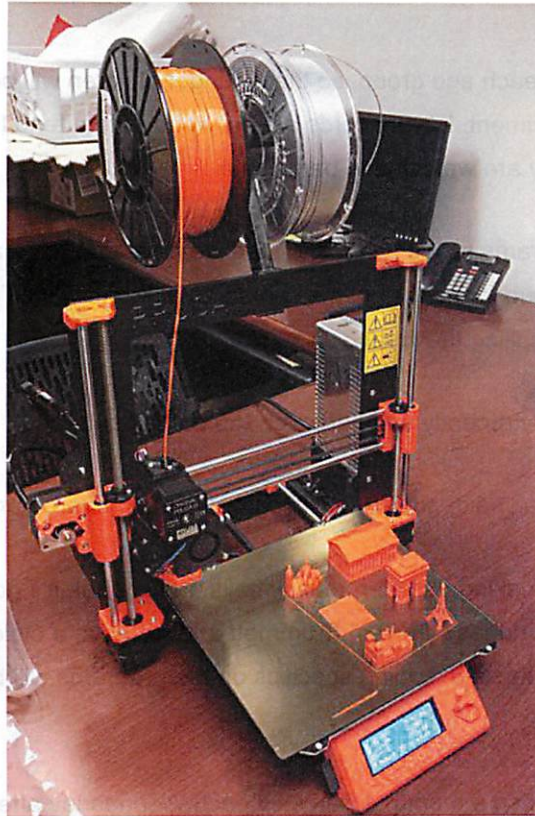
03/29/18 Amazon	Elenco Snap Circuits Battery Eliminator	STEM Lab Equip.	3	19.99	\$59.97	
03/29/18 Amazon	Elenco Snap Circuits Extreme SC-750R	STEM Lab Equip.	3	124.99	\$374.97	
03/29/18 Amazon	Makey Makey	STEM Lab Equip.	2	49.95	\$100.89	
04/22/18 Amazon	Kids First Boat Engineer Kit	STEM Lab Equip.	1	42.99	\$42.99	
04/22/18 Amazon	Kids First Automobile Engineer Kit	STEM Lab Equip.	1	39.76	\$39.76	
04/22/18 Amazon	Kids First Aircraft Engineer Kit	STEM Lab Equip.	1	34.63	\$34.63	
04/22/18 Amazon	Kids First Amusement Park Engineer Kit	STEM Lab Equip.	1	39.49	\$39.49	
04/22/18 Amazon	Kids First Robit Engineer Kit	STEM Lab Equip.	1	39.99	\$39.00	
04/25/18 Amazon	Elenco Snap Circuits Battery Eliminator	STEM Lab Equip.	1	19.99	\$19.99	
04/25/18 Amazon	Elenco Snap Circuits Extreme SC-750R	STEM Lab Equip.	1	124.99	\$124.99	
04/25/18 Nasco	Erlenmeyer Flask, 2000 mL	STEM Lab Equip.	1	23.35	\$23.35	
11/01/18 A & R Mechanical	Electrical receptacle for robot	STEM Lab Equip.	1	931.13	\$931.13	
04/25/18 Nasco	Dr. Eureka	STEM Lab Equip.	1	18.00	\$18.00	
04/25/18 Nasco	Ozobot Bit- Dual Pack Set	STEM Lab Equip.	2	119.95	\$239.90	
04/25/18 Nasco	Real-World Math: Unexpected Events	STEM Lab Equip.	1	19.95	\$19.95	
04/25/18 Nasco	Hamilton 3D Magic Pen Mega Pack	STEM Lab Equip.	1	799.95	\$814.97	
04/25/18 Nasco	STEM Challenge Cards	STEM Lab Equip.	1	17.99	\$17.99	
04/25/18 Nasco	Circuit Maze	STEM Lab Equip.	1	27.50	\$34.19	
07/10/18 Amazon	Tumble Trax Marble Run	STEM Lab Equip.	1	22.57	\$22.57	
07/10/18 Amazon	Build Your Own Video Game	STEM Lab Equip.	1	27.69	\$27.69	
07/10/18 Amazon	Gravity Maze	STEM Lab Equip.	1	26.99	\$26.99	
07/19/18 IKEA	LACK Table	STEM Lab Equip.	2	7.99	\$26.73	
08/31/18 Amazon	Lab Supplies (Gloves and Goggles)	STEM Lab Equip.	1	138.71	\$138.71	\$9,637.61
	<i>Total Expenditures</i>				<u>\$21,613.94</u>	\$21,613.94
	<i>Current Balance</i>				<u>\$3,386.06</u>	

https://www.washtimesherald.com/news/local_news/stem-launch-library-sets-stem-program-open-house-for-monday/article_a563e055-fea0-586d-a007-614cf0e628f4.html

EDITOR'S PICK FEATURED

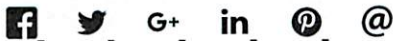
STEM LAUNCH Library sets STEM program open house for Monday

Lindsay Owens Times Herald Aug 9, 2018



Lindsay Owens | Times Herald

This 3D printer is just one of the latest additions at the Washington Carnegie Public Library. STEM Coordinator Cailey Julian said scribble bots, engineering activities and more will be a part of the library's STEM room.



Last month, the Washington Carnegie Public Library wrapped up its youth and adult summer reading programs. Now the staff of the library is making final preparations on its latest endeavor — science, technology, engineering and math, or STEM programming, and a space in the library dedicated to making STEM fun for youth of all ages.

Washington Carnegie Public Library Director Teresa Heidenreich said earlier this year, the library was awarded a \$25,000 grant from the Daviess County Community Foundation, in partnership with Regional Opportunity Initiatives, Inc. That grant has allowed the library the opportunity to continue to expand its offerings to area youth in the form of the STEM out-of-school learning programs.

"We're calling it STEMspiration," said Heidenreich adding the free after-school STEM programs will be open to little ones, tweens and teens.

"We're wanting to change the equation for students and engage families, schools and the community."

The STEM programs will be held under the direction of STEM Coordinator Cailey Julian, who was hired in the spring.

"Each week, we will have a STEM program for each age group," said Julian, who has a bachelor's degree in chemistry with a minor in biology from Ball State University. "Programs will be offered for students in grades K-2, 3-5, 6-8 and 9-12."

Julian said programs will also be tailored to each age group, so that younger children will be more supervised and teens will be allowed more freedom to experiment. Library cards are not needed to attend library programs or use the STEM lab so students from the entire county are welcome to participate.

"We do ask that people register for the programs so we can make sure we have enough materials for everyone," said Julian, who said those interesting in signing up for the programs can do so at Monday's STEM Open House and Meet and Greet from 4 p.m. until 7:30 p.m. or by calling the library.

"We offered a program on making rock candy recently and had over 150 participants."

Each month will carry a different theme, Julian said, adding that programs will be offered on Mondays from 4 to 5 p.m.

"We have a chemistry program planned on making polymer bouncy balls. In October, it's going to be Frankenstein month. There's an engineering program on bridges with Tom Brummett and we have a biology program planned that will talk about taste traits and fingerprints," she said, adding specifics on the programs will be available at the library. "In December, we will be doing a family event."

The STEM opportunities don't just happen once a month. Julian said each Wednesday afternoon the STEM lab will be open.

"We have several STEM-related games and activities for all ages," she said, adding scribble bots, video game designing programs, LEGOS and more are all part of the STEM lab. "It's an opportunity for youth to come in and try different things."

Heidenreich said STEM activities had popped up in several conversations amongst library staff and the library board and the board knew it was something that should be added to the library's strategic plan.

"We see and hear about people taking their children to Bloomington or Evansville or other places for STEM activities, so this was something we felt the community really had a need for. We want youth in our community to like STEM, know they are capable of learning and in the end, value what they've learned," she said.

For more information on the STEM offerings, contact the library at 812-254-4586.



