

Science, Technology, Engineering, and Mathematics

ANNUAL REPORT

2012

Prepared by  
the Northwest Ohio  
Center for Excellence  
in STEM Education



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Northwest Ohio Center for  
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Center of Excellence in Science and Mathematics - Opportunities for Success



This report was prepared by Jacob Burgoon and Lisa Addis with support from the Northwest Ohio Center for Excellence in STEM Education/COSMOS staff



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### STEM in the Park Sponsors

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Ohio STEM Learning Network





The third annual STEM in the Park event was held at Bowling Green State University (BGSU) on Saturday, September 8, 2012. At the request of previous attendees (via the STEM in the Park evaluation survey), the length of this year's event was increased by half an hour, resulting in a three and a half hour event (10:00 a.m. to 1:30 p.m.). Due to inclement weather, the event was held indoors at the Perry Field House for the second consecutive year. Despite the weather, the attendance was the largest to date, with a total of 2,681 attendees/exhibitors/staff/volunteers (a 57% increase in attendance from 2011). This year's event also grew from 49 to 58 activity stations, with many new exhibitors and many stations facilitating multiple hands-on STEM activities. The 2012 STEM in the Park event was presented by Kroger and BGSU, with support from The Andersons, BGSU Foundation, BP-Husky Refining, Battelle, Bowling Green Community Foundation, Carolina Biological, Coca-Cola, Connect a Million Minds (from Time Warner Cable), the Northwest Ohio Center for Excellence in STEM Education, the Ohio STEM Learning Network, and Walmart.

### STEM in the 21st Century ———

STEM is an acronym for Science, Technology, Engineering, and Mathematics, disciplines that have much importance in our knowledge-based global society. The significance of STEM in our lives is easy to see: a rapidly growing population and ever more complex systems of human interaction demands creativity and innovation to solve the important social, economic, health, and environmental problems we face everyday. STEM is an essential part of that problem-solving process, and is therefore more important than ever as we continue to face greater and more complex problems. But if we are to increase our focus on STEM, we must also increase our focus on STEM education. If students are given opportunities to participate in engaging real-world STEM



## STEM in the Park™ by the Numbers

- Attending Adults: **991**
- Attending Children: **1,279**
- Total Attendees: **2,270**
- Expected 2013 Attendance: **3,000**
- Exhibitors: **342**
- Lunches Served: **1,836**
- Activity Stations: **58**
- Take-Home Activities: **21**
- Sponsors: **12**
- Evaluation Survey Response Rate: **54%**  
(269 responses out of 498 invitations)



activities, they will learn the STEM concepts and thinking skills necessary to solve the complex problems of our world. STEM is not a collection of facts and numbers; it is a way of thinking about the natural and manufactured processes we experience everyday. Therefore, learning about STEM is not only beneficial for those who will eventually pursue a career in STEM, but for all of us, in order to make the best decisions for ourselves and our families, and to be responsible citizens of our country and the world. STEM in the Park seeks to contribute to STEM education by providing opportunities for adults and children to explore the many aspects and applications of STEM in their lives.

## STEM in the Park

STEM in the Park is a free community event, coordinated by the Northwest Ohio Center for Excellence in STEM Education (NWO), created to get people of all ages excited about STEM. The ultimate goals of STEM in the Park are to increase attendees' awareness of STEM-related organizations and events in their community, and to improve attendees' knowledge about and interest in STEM and STEM careers. STEM in the Park features dozens of interactive STEM activities facilitated by higher education institutions, K-12 educational agencies, community non-profit organizations, and local businesses. People attending the event enjoy free food and can visit as many STEM activity stations as they desire. The event operates based on the generosity and talent of STEM professionals, businesses, and organizations in northwest Ohio, many of whom donate their time in the name of STEM education.

## 2012 STEM in the Park Attendance

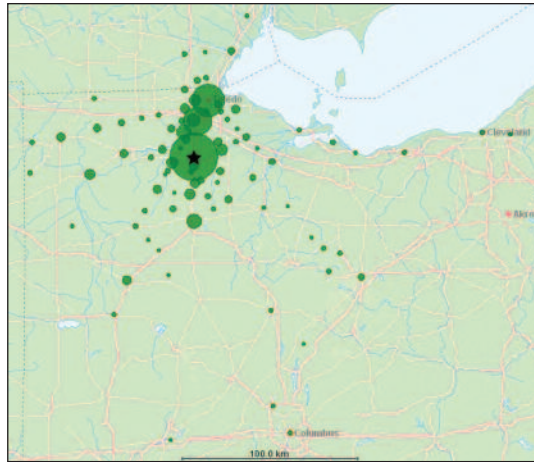
This year, STEM in the Park attracted families from at least 90 different cities and towns in Ohio and Michigan. Most attendees were from northwest Ohio, mainly Bowling Green, Toledo, and Perrysburg, but families also came from the Cleveland, Columbus and Cincinnati areas, as well as from several cities and towns in southeast Michigan. The map on the following page illustrates the locations from which attendees traveled to STEM in the Park.

*"Loved it! Can't wait to see next year's line up - my 7 and 9 year old are already planning our attendance for next year."*





### Geographic Distribution of STEM in the Park Attendees in 2012



★ STEM in the Park (Bowling Green, OH)

Note: The size of a circle corresponds to the number of attendees from a particular location.



A total of 2,681 people (including staff and exhibitors) attended STEM in the Park, which is 970 more (a 57% increase) than the previous year's attendance. Most of the attendees were coming to STEM in the Park for the first time. In fact, 62% of the attendees who completed the evaluation survey (n = 268) reported that 2012 was their first STEM in the Park event. The remaining one-third of attendees were evenly split between 2012 being their second and third STEM in the Park event. The table below displays the attendance information for the past three STEM in the Park events.

### STEM in the Park Attendance from 2010 to 2012

STEM in the Park Participants	2010	2011	2012
Adults	620	617	991
Children 0-2 yrs.	96	103	150
Children 3-5 yrs.	201	181	307
Children 6-10 yrs.	339	355	597
Children 11-13 yrs.	118	95	160
Children 14-18 yrs.	31	25	65
<b>Total Children (0-18 yrs.)</b>	<b>785</b>	<b>759</b>	<b>1,279</b>
<b>Total Attendees</b>	<b>1,405</b>	<b>1,376</b>	<b>2,270</b>
Volunteers/Staff	32	65	69
Exhibitors	177	270	342
<b>Total Staff and Exhibitors</b>	<b>209</b>	<b>335</b>	<b>411</b>
<b>Total Attendance</b>	<b>1,614</b>	<b>1,711</b>	<b>2,681</b>

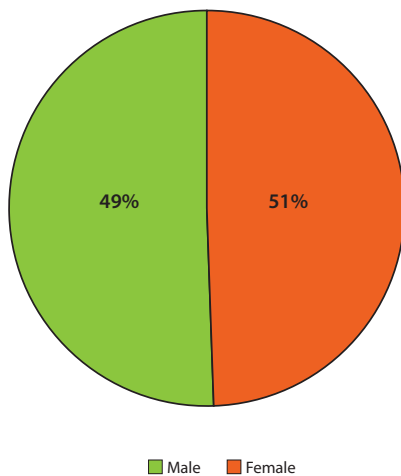




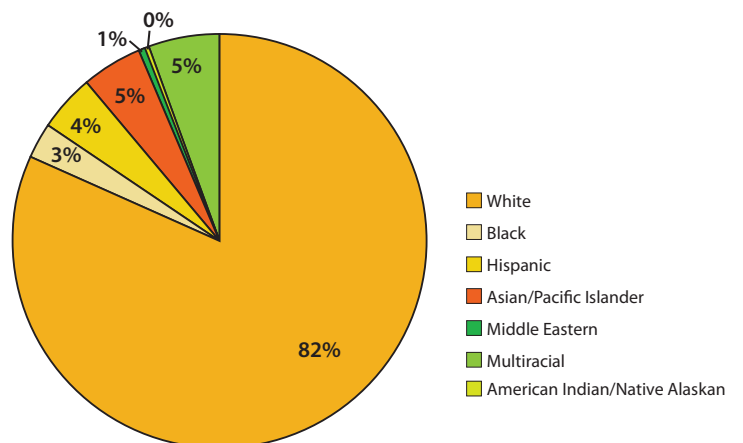
Most of the attendees who completed the evaluation survey reported staying at STEM in the Park for the full duration of the event, with another half of attendees staying for two hours. In addition, more than half of the attendees (55%) reported visiting between 11 and 30 of the 58 total activity stations, with 31% of attendees visiting more than 30, and 14% of attendees visiting less than 11 stations.

Almost all of the adults who attended STEM in the Park came with children (either their own children, grandchildren, or children that were not their own). According to the registration data, most groups consisted of one adult and two children, the majority of whom would identify themselves as White. It is important to note that this year's event saw more racial diversity than in past events, and the STEM in the Park staff is committed to further increasing diversity in the future. The demographic information collected from the registration and evaluation survey is presented in the figures below.

**Gender of Children Attending STEM in the Park (n=1,231)**

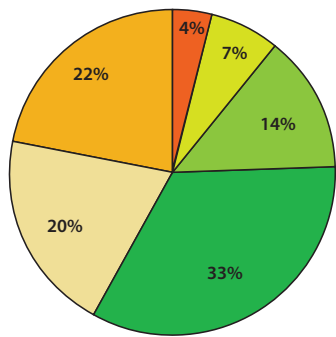


**Racial Identity of Children Attending STEM in the Park (n=1,215)**





**Annual Household Income for Families  
Attending STEM in the Park (n=248)**



■ Less than \$20,000   
 ■ \$20,000 to \$34,999   
 ■ \$35,000 to \$49,999  
■ \$50,000 to \$74,999   
 ■ \$75,000 to \$100,000   
 ■ More than \$100,000

The marketing efforts for STEM in the Park this year were similar to efforts for past events. NWO sent e-mails to past attendees, community STEM partners, university and college faculty members, and K-12 teachers and administrators. Postcards and flyers were also distributed to local schools and community partners (e.g., postcards were placed in the Bowling Green and Lucas County Libraries). However, in a departure from the previous two years, the event was not advertised in any local newspaper due to the small percentage of attendees who reported learning about the event in that way. The table on the next page outlines the ways in which attendees learned about the 2012 STEM in the Park event. According to these data, most of the attendees learned about the event from school (which could actually encompass a number of more specific marketing efforts, including flyers or postcards, and word of mouth from colleagues, teachers, or supervisors). Those who selected “other” learned about the event via several different sources, including Facebook, and their attendance at previous STEM in the Park events.

**STEM in the Park™ Activity Highlight**



**Explore Snakes and Reptiles**

This activity station, facilitated by the BGSU Department of Biological Science Herpetology Lab, was the most frequently mentioned favorite activity among attendees who completed the evaluation survey. Attendees visiting this station had the opportunity to observe and interact with more than two-dozen different species of reptiles, under the guidance and supervision of several BGSU students who volunteer in the Herpetology Lab. Some of the reptiles at this station included crested geckos, bearded dragons, corn snakes, Kenyan sand boas, and a six and half foot long albino boa constrictor!



## STEM in the Park™ Activity Highlight



### Build a Real Butterfly Workshop

This activity station, facilitated by the BGSU School of Teaching and Learning Adolescent and Young Adult Program, was the second most frequently mentioned favorite activity among attendees who completed the evaluation survey. Children visiting this station built a caterpillar habitat in a small container, which they wore around their neck for the rest of the event. Children were given instructions for taking care of their caterpillar at home as it formed a chrysalis. Weeks after the event, hundreds of butterflies emerged from their chrysalises in hundreds of homes in northwest Ohio and southwest Michigan!

“This was a first class experience with a wide variety of events. I am truly sorry I haven't made it before and will bring more kids next year!”

“What a great educational yet fun event for kids! The kids looked forward to returning this year and they were not disappointed!”

#### How Attendees Learned About the 2012 STEM in the Park Event

Source	Number of Attendees	Percentage of Attendees
School	225	36%
A friend or family member	158	25%
E-mail from NWO	141	22%
Flyer	118	19%
Postcard	66	10%
Other	57	9%
Online Community Calendar	17	3%

Note: n=628

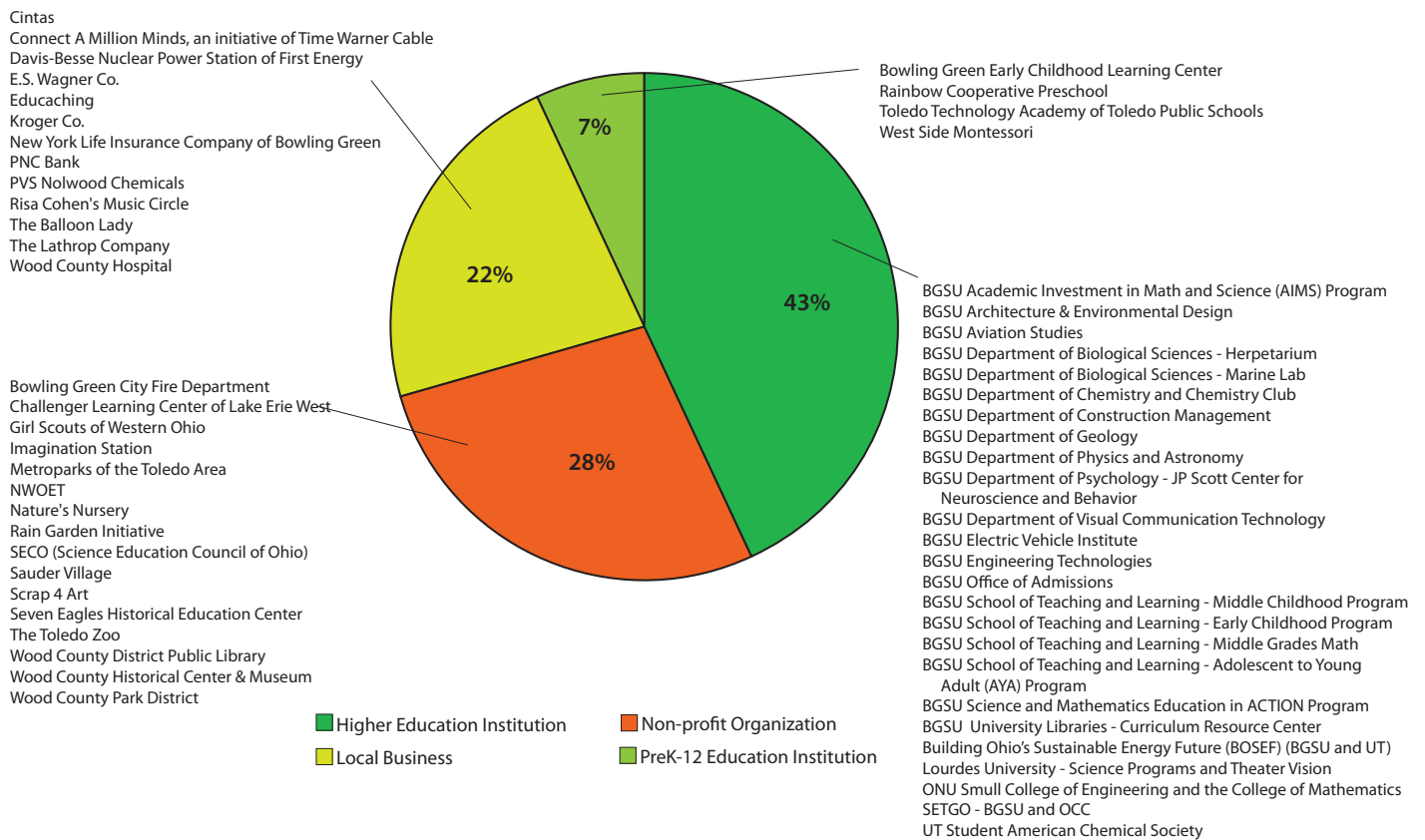




## 2012 STEM in the Park Activities

This year, STEM in the Park featured 58 STEM activity stations facilitated by local exhibitors from private businesses, non-profit organizations, K-12 institutions, and institutions of higher education. Most of the activity stations were facilitated by departments and programs from institutions of higher education, including BGSU, The University of Toledo (UT), Lourdes University, Ohio Northern University (ONU), and Owens Community College (OCC). Non-profit organizations and local businesses facilitated half of the activity stations, and PreK-12 educational institutions facilitated four activity stations. The figure below illustrates the percentage of activity stations facilitated by each type of exhibitor, and lists the specific exhibitors who participated.

### 2012 STEM in the Park Exhibitors





Most activity stations included hands-on activities and games, and provided attendees with opportunities to observe and interact with several kinds of artifacts, animals, animal coverings, earth materials, and technology. Notably new this year were three activity stations that allowed attendees to explore and interact with large vehicles (fire truck, excavator, and fire safety trailer) parked outside the Field House. Many of the 58 activity stations included make-and-take activities that resulted in products attendees could take with them. Some of the make-and-take products included art made from recycled materials, “flubber”, ice cream, butterfly larvae, marshmallow catapults, home-made “rubber band racers”, and a vial containing the attendees’ own DNA. In addition, 21 activity stations provided attendees with take home activity cards, which could also be accessed online after the event (at <http://cosmos.bgsu.edu/STEMinPark/activitycards.htm>). The cards included directions and an explanation for an activity that would allow the attendees to extend their STEM discovery at home after the event.

All of the activity stations provided attendees with opportunities to explore important STEM concepts and topics, but several stations were notable in regard to their interdisciplinary or applied nature. Twenty-one of the activity stations included activities that either integrated STEM with other disciplines such as art or social studies, or looked at STEM concepts and topics within a “real-world” context such as environmental sustainability, health, or industry. Examples of these activities are included in the table below.

### *Examples of Interdisciplinary or Applied STEM in the Park Activities*

Application	Exhibitor	Description of Activity
Art	Metroparks of the Toledo Area	Attendees participated in “fish rubbing” wherein they created fish themed paintings
Social Studies	Sauder Village	Attendees learned about the “Science of Old-Fashioned Games” by playing games such as hoop rolling
Environmental Sustainability	Scrap 4 Art	Attendees created pieces of art by reusing products like empty toilet paper rolls
Health	Wood County Hospital	Attendees visited “Camp Cootie,” which included a germ tent that illustrates the importance of hand hygiene
Industry	Lathrop Construction	Attendees applied principles of construction to create their own mini-structures





In response to the question, “What were your family’s favorite activity stations?” attendees listed an average of three different activity stations, with some attendees listing only one station and others listing several different stations. All but three of the 58 activity stations were listed by at least one attendee, and several attendees wrote that they liked all of the activity stations, indicating that the activity stations were high in quality and appealed to the preferences of many different people. Indeed, several attendees provided comments on the evaluation survey that demonstrated their satisfaction with the variety of activities at STEM in the Park in regards to both content and age-level. Three attendees wrote:

***~ IT WAS AMAZING!!! I wasn't sure if it would be good for a 3 year old, I thought he might be too young, but the activities varied in age range and we found quite a few to engage our family.***

***~ Great family friendly activity; a wide variety of topics and activities to interest every child.***

***~ We were fascinated by the types and variation of experiences offered.***



The favorite activities listed by the attendees on the evaluation survey were tallied, and the most commonly listed activity stations (those given by at least 10% of respondents) are displayed in the table on the next page. The top three activities are also highlighted throughout the report in the “STEM in the Park Activity Highlight” boxes. Notably, five of the seven most favorite activities from the 2012 event were also favorite activities from the 2010 and 2011 events. The popularity of these activities is likely to continue in the future, and thus it is recommended that all or most of these activities be present at future STEM in the Park events.

***“What a wonderful opportunity for parents, children of all ages, and educators! The community came together to celebrate learning in a fun way with great energy.”***





## STEM in the Park™ Activity Highlight

This activity station, facilitated by the BGSU Department of Physics and Astronomy, was the third most frequently mentioned favorite activity among attendees who completed the evaluation survey. Attendees visiting this station had the opportunity to explore and observe bubbles using several different bubble-making instruments. The station also featured a contraption capable of making a large bubble sheet several feet high, which many children used to create the biggest bubble they have likely ever seen!

### Attendees' favorite activity stations at STEM in the Park 2012

Activity Station (Provider)	# of Times Mentioned	% of Survey Respondents Who Mentioned the Activity
Explore Snakes and Reptiles (BGSU Dept. of Biological Sciences – Herpetology Lab)	83	31%
Build a Real Butterfly Workshop (BGSU School of Teaching and Learning AYA Program)	68	25%
Explore Bubbles and Surface Tension (BGSU Dept. of Physics and Astronomy)	51	19%
Blast Off with “Pop Rockets” (Challenger Learning Center of Lake Erie West)	44	16%
Ice Cream in a Bag (BGSU Dept. of Chemistry)	43	16%
Fun with Flubber (Imagination Station)	33	12%
Isolate Your Own DNA (SETGO)	27	10%

## Explore Bubbles and Surface Tension



“My kids love this event. It truly sparks their interest in science. Thanks for engaging them.”



The activity stations at STEM in the Park are intended to be as interactive and engaging as possible in order to increase interest in and knowledge about STEM topics. The attendees' survey responses indicate that the activity stations were effective in engaging the children who attended STEM in the Park. Most (79%) of the attendees who completed the evaluation report (n = 268) reported that their children were *substantially* engaged with the STEM in the Park activities, and another 19% perceived their children to be *moderately* engaged with the activities. Furthermore, 72% of the exhibitors who completed the evaluation survey (n=29) reported that the children who visited their activity station were *substantially* engaged.



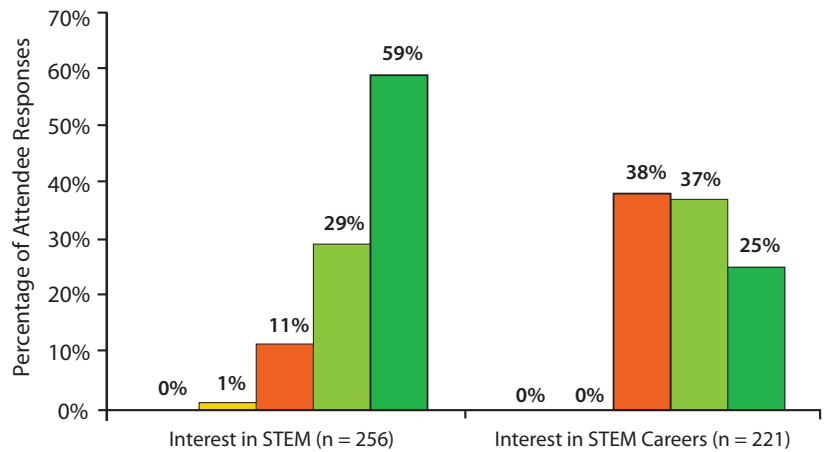
## 2012 STEM in the Park Impact on Participants

The findings from the 2012 STEM in the Park evaluation demonstrate that STEM in the Park successfully reached its goals of increasing attendees' awareness of STEM-related organizations and events in their community, and improving attendees' knowledge about and interest in STEM and STEM careers. Most of the attendees reported that STEM in the Park *moderately* increased their knowledge about STEM and *substantially* increased their awareness of STEM community organizations and resources. Furthermore, most attendees believed that STEM in the Park *substantially* increased their children's knowledge of STEM, and that their children were *much more* interested in STEM after attending STEM in the Park. According to the written comments, many of the attending children talked about the event and asked questions about the activities long after the event was over. Furthermore, attendees suggested that their children were more inquisitive after attending STEM in the Park, wanting to try the activities at home and learn more about the things they saw at the event (e.g., getting a book about snakes from the library). Attendees also perceived that STEM in the Park maintained or increased their children's interest in pursuing a career in STEM. The figures on the next page illustrate the attendees' response patterns regarding their perceptions of how STEM in the Park improved their awareness of STEM-related organizations and events, and their children's interest in and knowledge about STEM and STEM careers.



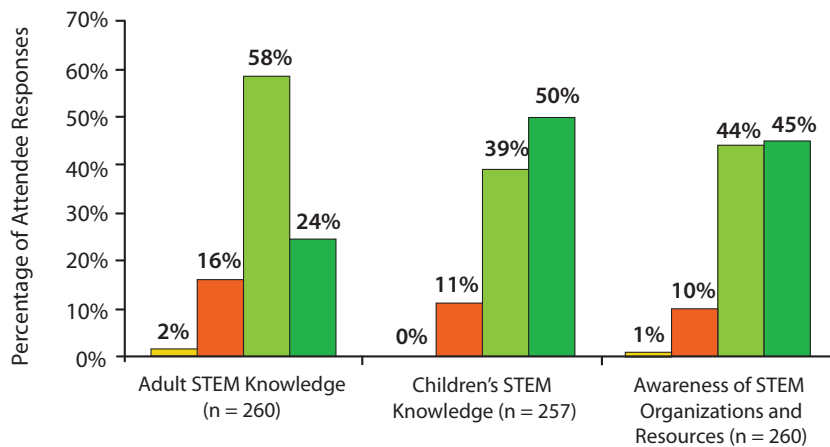


### STEM in the Park Impact on Children's Interest in STEM and STEM Careers



Legend: Much less (lightest green), A little less (yellow-green), About the same (orange), A little more (medium green), Much more (darkest green)

### STEM in the Park Impact on Attendees' STEM Knowledge and Awareness



Legend: Much less (lightest green), A little less (yellow-green), About the same (orange), A little more (medium green), Much more (darkest green)





Many of the activity stations provided take-home activity cards that were meant to sustain the attendees' engagement and interest in STEM beyond the event. The survey results indicate that the activity cards served their purposes, as a large majority of the attendees (86%) reported that their family had done (or planned to do) one or more of the take home activities. According to the written evaluation responses, many of the children who attended were excited about STEM, and eager to continue the activities at home. Three of the attendees wrote:

***~ We brought home numerous activities and they have done them all and almost a week later they are still discussing it and asking questions.***

***~ They want to keep doing the activities at home. I'm looking online for at home science experiments.***

***~ She's interested in doing more activities and experiments at home.***



The activity cards, however, were not the only means by which STEM in Park 2012 sustained engagement and interest in STEM. Some of the attendees who came to STEM in the Park were educators who applauded the interactive educational activities at the event, and mentioned learning several ideas for STEM activities to use in their lessons. One teacher wrote, "I loved coming and learning new activities. As a teacher this is one of the best resources I have found to find new activities for my classroom." Overall, as a result of attending STEM in the Park, 83% of attendees reported that their family was a little more (46%) or much more (37%) likely to do activities related to STEM. In addition, 87% reported that it is very likely that their family will attend STEM in the Park next year. These findings suggest that STEM in the Park was successful in improving attendees' interest in STEM and STEM-related events such as STEM in the Park.



Overall, the attendees' comments were very positive. Many attendees wrote how impressive the event was, and expressed their gratitude for being able to attend a free community event with a free lunch. Some of the attendees wrote:

***~ I thought this event was excellent, and we were impressed with how it was set up, and the fact that there were so many volunteers and it was free.***

***~ Our family (7 yr old twins and a 20 month old plus parents) had a really enjoyable experience. All projects and presentations were top notch.***





~ *This is an excellent event that we make sure to attend every year. Love that you offer a FREE lunch as well, and that it is substantial. Hope this event continues to grow and prosper.*

~ *This event is terrific. We loved every minute of it. We invited another family to come with us this year and they loved it as much as us. Thanks for all the work required to put on this fabulous event.*

~ *What a great educational yet fun event for kids! The kids looked forward to returning this year and they were not disappointed! Thank you.*

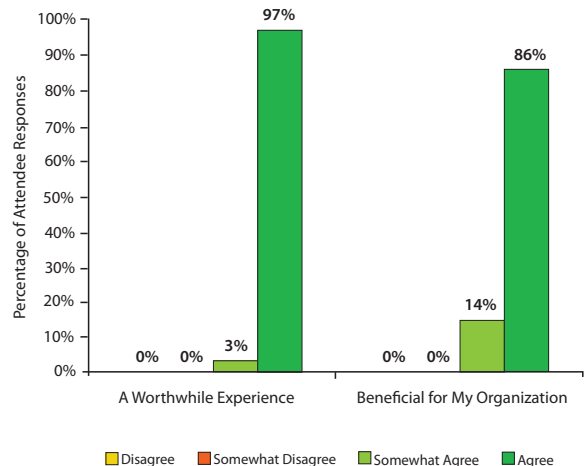
~ *I was VERY impressed by this event. I've worked in higher education for 14 years and at 5 institutions and have never seen a community partnership program quite like this. I REALLY enjoyed it and I think that this is what public higher education is all about. Well done!*

~ *We were very impressed with the extensive community involvement, as well as the quality of the "presenters." The atmosphere was very positive and encouraging. It was great that kids could wander from place to place and do whatever caught their interest.*

*"We enjoyed it so much we wish it was once a month!"*

The evaluation findings demonstrate that STEM in the Park was also beneficial for participating exhibitors. Almost all of the 29 exhibitors who completed the evaluation survey reported that STEM in the Park was a worthwhile experience, and most reported that being an exhibitor was beneficial for their organization. The figure to the right illustrates the exhibitors' response patterns regarding the value of their STEM in the Park experience.

**Exhibitors' perceptions regarding the value of their STEM in the Park experience (n = 29)**







The value that exhibitors placed on their STEM in the Park experience generally fell into two categories: 1) increased exposure and business and 2) having opportunities to teach and interact with the community. Several exhibitors mentioned that being at STEM in the Park helped to increase attendees' awareness of the exhibitors' organization and increased the potential for attendees taking advantage of the exhibitors' services. Other exhibitors suggested that the value of their participation rested on the opportunities afforded to them to interact with and educate members of the community. Some of the exhibitors wrote:

*~ We had the opportunity to meet community and campus people who may be able to use our services.*

*~ There were a LOT of kids there who were able to participate in the activity at our table. We were also able to interact with many families and encourage them to bring their kids to [our organization] for many more similar activities.*

*~ Wonderful program that gives us an opportunity to teach people as well as advertise other opportunities we offer.*

*~ STEM in the Park is a great opportunity for [our organization] to connect with children in a community setting. It is a positive event and we enjoy our participation.*



In addition to the aforementioned benefits, some of the exhibitors who had student volunteers working at their activity station emphasized how beneficial it was for those students to be involved. These exhibitors wrote:

*~ The students who ran the stations had a great learning experience.*

*~ My students THANKED ME/US for allowing them to participate/volunteer in this event. It was worthwhile in their eyes and mine.*

*~ It was great for [the students] to be involved. Gave them some great experience as future teachers and it was great to see the kids' enthusiasm.*

The positive experiences reported by the exhibitors were also reflected in their willingness to participate in future events. Almost all of the exhibitors said they are likely to return next year; 90% reported that it is very likely that they will return, and 10% reported that it is somewhat likely that they will return.



## Recommendations for Future Events ———

The evaluation findings demonstrate that STEM in the Park was successful at increasing attendees' awareness of STEM-related organizations and events in their community, and improving attendees' knowledge about and interest in STEM and STEM careers. Furthermore, the evaluation findings indicate that attendees were highly engaged at the activity stations, and perceived the event in general to be of high quality and value. The attendees also provided some valuable feedback regarding some aspects of the event that could be improved in future years. The feedback was categorized into several themes and the following recommendations were made based on the themes.

### ***RECOMMENDATION 1: Increase the length of STEM in the Park.***

For the third year now, the most common theme throughout the attendees' written comments was a desire to make STEM in the Park longer. Many of the attendees commented that there was not enough time to participate in all of the activities at STEM in the Park, and suggested that the length of the event be extended. The length of this year's event was actually increased by half an hour at the request of the attendees from the first two years. However, the dramatic increase in attendance this year combined with the increase in activity stations perhaps made it more difficult for attendees to do all the activities they wanted in three and a half hours. Therefore, another increase in the length of the event may be warranted. Evaluation findings from last year demonstrated that most exhibitors were very supportive of increasing STEM in the Park from three to four hours.

### ***RECOMMENDATION 2: Keep STEM in the Park indoors, but use a larger space.***

Many attendees commented about the value of having the event indoors. The data suggest that attendees perceived the indoor location as valuable for three reasons. First, attendees mentioned that having the event indoors created a nice "flow" from one activity station to another, and thus the organization of the event was improved by having it indoors. Second, attendees suggested that having the event indoors allowed them to better keep track of their children as they went from place to place in the Field House. Third, attendees commented that having the event indoors avoided any potential weather issues such as wind and temperature. Some exhibitors also suggested the event be kept indoors, and mostly cited the weather (i.e., wind blowing materials) as their reason.

Despite the many comments about keeping the event indoors, it is clear that a larger venue is needed if an indoor event is planned in the future. The second most common theme among the evaluation responses was the general crowdedness of the event. Attendees reported that some of the activity stations were crowded, making it difficult to see and do the activities. Other attendees mentioned





that the crowdedness made it difficult for them and their kids (especially if they were in a stroller) to get around the event. Many attendees connected the crowdedness issue with the length of the event, and suggested that increasing the length of the event could also alleviate some of the space issues. This may be true, but the STEM in the Park staff should also consider other ways to increase the space available for the event. One specific issue regarding the lack of space was the food service. Attendees reported waiting in line for food for a long time, and the food lines often interfered with the activity stations that were near the food service tables. If the overall event space were to be increased, food service could be placed away from the activity stations, thereby providing more room for both attendees at the activity stations and in the food area.

### **RECOMMENDATION 3: Organize activity stations by age-appropriateness.**

Although many attendees commented about the wide variety of activities available for children of different ages, several attendees also suggested that activity stations be grouped by age-appropriateness. Organizing the activity stations in this way would help attendees to better plan their visit by attending the activity stations best suited for their children. This format would also allow younger children to have greater access to the activities without feeling lost or left out due to older children at the activity stations. Despite the benefits of this format, the logistical concerns are likely to present a challenge. For example, while some activity stations may be better suited for one age group or another, many activity stations include activities appropriate for multiple age groups. One solution may be to clearly label those activity stations that are age-specific, and encourage other activity stations to separate and label their activities by age group. Another solution may be to create a separate area for preschool and early education (grades K-2) children. In the words of one attendee, this would ensure that, *"big kids would not be in the way of the younger focused activities and vice versa"*.

Attendees and exhibitors made several other suggestions, but none were made so often to warrant a recommendation on their behalf. However, it is important that these suggestions are documented, regardless of their frequency, so the STEM in the Park staff can give them consideration in planning future events. The other suggestions were to:

- Have more visible signage (perhaps above the tables) for each activity station
- Include more activities geared towards older children (preteens and teens)
- Provide exhibitors with boxed lunches to maximize convenience and portability
- Hold STEM in the Park on a different weekend than the Black Swamp Arts Festival

In addition to these recommendations, the STEM in the Park staff also made some recommendations based on their experiences during this year's event. These recommendations include making the registration process more efficient by having attendees enter their information electronically (perhaps using iPads) instead of by hand on a registration card.





## STEM in the Park 2012 Budget

*Expenses from January 1, 2012 – October 31, 2012*

Category	TOTAL EXPENSES
Food & Beverages	\$13,434.95
Personnel*	\$11,514.35
Supplies	\$3,925.12
Advertising & Communications	\$1,625.60
Facility and Equipment Rentals	\$1,545.87
Evaluation Incentives	\$474.00
Printing & Copying	\$627.60
Service Providers (Photographer & Balloon Artist)	\$275.00
<b>TOTAL</b>	<b>\$33,422.49</b>

*\* Note: Personnel includes salary and fringes for two co-coordinators and two student assistants from July – October 2012.*

