

*Enter the
exciting world of
STEM festivals*

Festival Planning Manual

iExploreSTEM Festival Planning Manual

BY GINA C. SCHATTEMAN



IEXPLORESTEM IS A COOPERATIVE PROJECT OF
THE STATE HYGIENIC LABORATORY
AT THE UNIVERSITY OF IOWA, THE IOWA MATH SCIENCE
EDUCATION PARTNERSHIP
AND
GINA C. SCHATTEMAN, PH.D.

ABOUT US

The State Hygienic Laboratory is Iowa's public health and environmental laboratory and serves all 99 counties with infectious disease detection and surveillance, newborn and maternal screening, and environmental monitoring of the air, water and soil. It is a nationally recognized leader in providing science-based information.

Co-Director Beth Hochstedler is the Education, Training and Outreach Manager at the State Hygienic Laboratory at the University of Iowa in Iowa City. She manages educational STEM activities, including a mentorship program, internship program and fellowships, the environmental and public health training program, strategic communications and outreach activities.

Co-Director Dr. Gina Schatteman, Ph.D., is Emeritus Associate Professor of Health and Human Physiology at the University of Iowa. She served as an AAAS Science and Technology Policy Fellow in the Office of Science Education at the National Institutes of Health before founding iExploreSTEM with the State Hygienic Laboratory and the Iowa Math Science Education Partnership.

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For more information or to request copies of this publication contact Gina Schatteman at iExploreSTEM@gmail.com

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SECTION 1. INTRODUCTION

The iExploreSTEM festival is an engaging, free, hands-on educational experience for K-12 students and their families. The first iExploreSTEM festival took place in September 2011 at the State Hygienic Laboratory in Coralville, Iowa. This one-day event offered compelling, educational and entertaining activities, stage events and exhibits to boost kids' interest in STEM (an acronym for Science, Technology, Engineering and Mathematics). Despite inclement weather, the iExploreSTEM festival drew more than 2,000 children and parents. Forty exhibitors and professionals from throughout the state offered hands-on activities designed to entice school-aged children to take a deeper interest in STEM fields.

The 2011 iExploreSTEM festival was created partly in response to a growing need for highly skilled workers. The United States Department of Education reports that employers are having a difficult time filling STEM positions with qualified people, as these jobs require highly skilled math and science professionals. Events like iExploreSTEM give children a hands-on opportunity to experience the wonders of science and mathematics at an early age, in the hopes that experiencing STEM as a child will lead to later success in those fields.

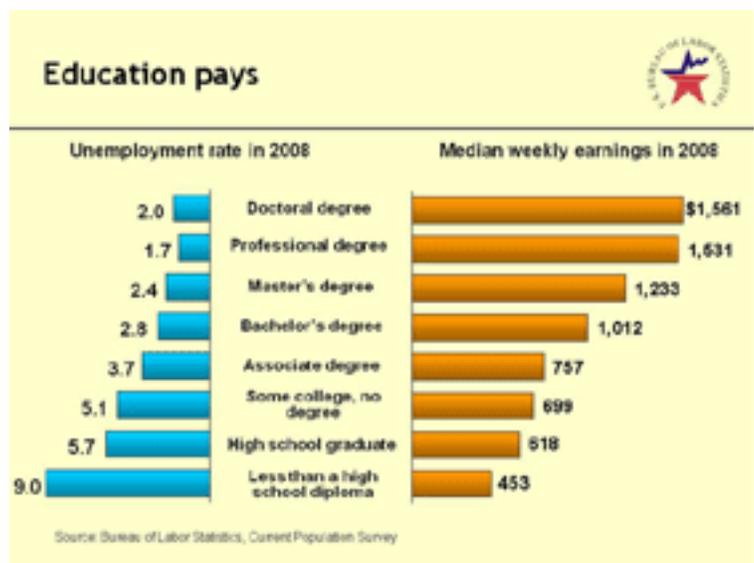
While there is an increasing demand for talented workers in the areas of math, science, engineering and technology, STEM skills are also valued in other careers. Traditional non-STEM jobs like firefighting or operating machines now require strong STEM skills.

For the United States to remain competitive in the global marketplace, it is critical that we create and maintain a solid pool of competent professionals with advanced skills. By adequately educating students in mathematics and science, we are preparing the next generation to steer our future economy and to bring forth solutions to tomorrow's problems. Presently, U.S. students rank near the bottom among students in economically advantaged countries, and too few earn degrees in STEM-related subjects. Therefore, promoting a youthful interest in STEM is a very important step to encourage Iowa children to pursue more highly advanced skills later in life. STEM education is a driving force to improve the quality of our workforce and increase the number of future job opportunities for our children. By teaching and learning solid STEM concepts we hope to once again assume our place as the world leader in academic achievement in science, technology, engineering and mathematics.

The goal of the iExploreSTEM festival is to bring science, technology, engineering, and mathematics to life. By assembling a team of experienced scientists, engineers, teachers and education experts to provide an outstanding educational afternoon full of hands-on activities, children and their families learn that these fields of study are fun, exciting and offer many rewarding opportunities. We would like to share this experience with young people throughout the United States.

In order to create excitement about STEM among all segments of a community, iExploreSTEM festivals are designed to be broad-based collaborative efforts. The State Hygienic Laboratory and the Iowa Mathematics and Science Education Partnership co-produced the 2011 festival, and their efforts were supported by the many institutions of higher education, governmental agencies, businesses, and local organizations that helped bring this enriching educational experience to life.

Thank you for your interest in the iExploreSTEM festival. Together we can help children become STEM enthusiasts and give them all a brighter future.



SECTION 2. FIRST STEPS

FESTIVAL TEAM

Choosing a festival team is the most important step in creating an outstanding festival experience for you and your sponsors, exhibitors and visitors. Every team member must be enthusiastic about the project. Festival planning is a lot of work that lasts for many months so it is easy for people to lose steam if not dedicated to the task. The process also requires collaboration, so be sure your team members are consensus builders. Because many of the steps are time sensitive, it also is important that team members will complete assigned tasks in a timely and thorough fashion. Finally, try to include members who know your community – people who know which organizations will be interested in providing an activity, can identify potential sponsors or have worked with the local media.



If you are very lucky you may find a team leader or member who has organized similar events in the past. Great! But remember, one person won't have time to do or even help with everything. Of course it is important to have a STEM expert or two on your team, but try to choose a team with a diverse set of skills. Useful skills to look for in your team include:

Website development/management

Graphic design

Fundraising

Marketing/Media

Budgeting/Finance/Billing

Logistics

Evaluation

Editing

FESTIVAL FOCUS

We tend to get lost in the logistics – what, when, and where- while forgetting the why. However, the first step after you have gathered your team is to agree on the goals, focus and target audience for your festival. Is your goal to introduce kids to the many different types of STEM, show them that science can be fun, raise their awareness of possible STEM careers or all of these? Do you want parents to understand the importance of a strong background in STEM or learn about the benefits of and opportunities for STEM careers for their children? Do you want to focus on elementary, middle or high school students, or provide a range of activities for all ages? Do you want to have activities representing all branches of STEM or focus on a particular area like, physics, engineering or biomedical sciences? The goals, focus and target audience must be clear before you begin to recruit sponsors and plan activities.

DATE, TIME, VENUE

DATE

Choose your festival date carefully. Consult local school calendars. You may be able to plan the festival to support school-based activity and will be able to avoid potential conflicts with events that they have planned. Also, you will want to make sure that there is no major conflict for groups that are likely to be key exhibitors. For example, if you anticipate local college students will be manning many booths, holding a festival during finals week or spring break would certainly not be ideal. In addition, avoid competing with other local STEM venue events, major community celebrations and significant TV events (like the Super Bowl). Pick your date as far in advance as is feasible and then immediately reserve the desired venue. Do not wait! If you find a date that does not conflict with other community events, you can bet other groups will also find that date desirable.

TIME

Festivals can be as short as 4 hours or as long as 2 days. Make sure your festival can accommodate the expected number of visitors. To compute your festival visitor capacity per hour, use the formula:

$$\text{Visitor Capacity/Hour} = \frac{(\text{max \# visitors at a single booth}) \times (\text{\# of booths})}{(\text{time visitor spends at booth in hours})}$$

Example: $[(4 \text{ visitors/booth}) \times (20 \text{ booths})] / (.2 \text{ hrs/booth}) = 400 \text{ visitors/hr.}$

Using this formula, you would predict that a four hour festival could accommodate 1,600 visitors. However, in real life, visitors don't distribute themselves evenly across the time span. So you need to think about how many visitors you expect to have at peak times.

Typically, a single shift of volunteers can run an activity for up to four hours. Any longer, and they will need relief. Therefore, it may be somewhat easier to get a large number of activities for a short festival than for a longer one.

VENUE

The choice of an indoor, outdoor or mixed venue will, of course, depend on the time of year and the nature of your planned activities. If any part of the festival will be outdoors, have a plan to deal with uncooperative weather. In addition, remember that festivals are for everyone; the venue you select must accommodate wheelchairs.

The number of activities planned will dictate venue size. Get exact measurements of the space as well as obstructions, then precisely map out each potential activity site. Basing your decision on raw square footage will cause problems; the shape may limit the amount of usable space. In the very simple case shown in [Figure 1](#), the same 30' x 30' room can accommodate six booths if the door is centrally located, but only five if it is off to one side.

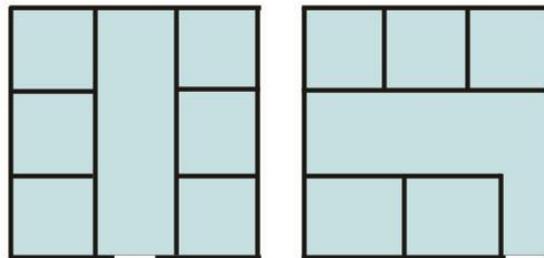


Figure 1. Booth layouts for a 30' x 30' room. The room can accommodate six booths if the door is centrally located, but only five if it is off to one side.

There must be enough parking to accommodate all, including disabled visitors. You may wish to set aside a few VIP spots as well. Exhibitors should be able to drive close to the site to drop off materials. If they can't, be prepared to provide carts. When parking is across a street, there must be a safe way for attendees to cross. Finally, the cost of parking (if any) should not be prohibitive.

INDOOR LOCATIONS

Fairgrounds make ideal venues. They provide large indoor and covered outdoor spaces as well as plenty of bathrooms. Parking is ample and it is easy for exhibitors to drop off materials near their booths. They usually have good electrical service and often offer WiFi. Rental is usually inexpensive. Similarly, large community centers may work well.

Conference centers are also fantastic places for indoor festivals. They will have everything you need, but they tend to be expensive. Besides the space rental, you may have to use their table covers, catering, electricians, etc. They have provisions for exhibitor materials drop-off, but often charge for parking. Unless you can wrangle an in-kind donation, you will probably have to steer clear of these.

Schools may work, but they are not recommended, especially for indoor festivals. Many children will not associate the setting with fun, and children and parents from other schools may be reluctant to come. Moreover, schools often come with many usage restrictions. They are not laid out ideally; booths located in the cafeteria or gym may be a long way from the auditorium you want to use for stage activities. If you must use a school, try to keep all activity rooms clustered. High schools have plenty of parking, but elementary/middle school parking lots may not be able to support your needs.

OUTDOOR LOCATIONS

Nothing's finer than an outdoor festival on a warm sunny day, but it loses its charm if it's too hot, cold or rainy. If you choose to take your chances with an outdoor venue, there are several things to consider. A site with toilets is a plus, but is not essential. You can hire port-o-pots. A hard surface may seem ideal, but fewer kids will go home with scraped knees and banged elbows if you are in a field. Also, staked tents are far more stable than weighted tents, something to consider if you are in a windy location. If you are exploring a grass or dirt field location, be sure that delivery trucks are permitted to drive on it. The ideal field will be adjacent to a hard surface where a stage can be erected and any mobile units or trailers can park. If they must be on the field, make sure it is allowed and that it is not a problem for the exhibitors. Whichever location you choose, verify that overhead or underground wires, lampposts, curbs, or other obstacles will not interfere with tent layout or traffic flow?



SECTION 3. WEB PRESENCE

These days, you might as well not exist if you don't have a Web presence. At the moment that means, a Website, a Facebook page, and a Twitter account. By the time you read this, some of those may be passé, but the point is, if you want to get noticed, you'd better be out there in the Cloud.

WEBSITE

There is an art to creating a user friendly, appealing Website. If you have never created one, now is NOT the time to learn. Find someone who knows how to do it. Don't think that because you're a "good writer" you can create the Web content. It isn't the same. Get help!! Also, someone who is great at creating Web content may be clueless when it comes to graphic design. This is a good time for collaboration.

At a minimum, your Website should include a homepage and link outs for potential attendees, exhibitors and sponsors. (See, for example, www.iExploreSTEM). Ideally, however, each target group will have one or more of their own pages. Of course if you have the time and expertise, you can create something a bit more sophisticated. (See, for example, www.cambridgesciencefestival.org)



HOMEPAGE

Essential items for this area include:

Photographs

Description of the event

Links to Facebook and Twitter

Link to Contact Us

Links to visitor, sponsor and exhibitor information

Event sponsor recognition

VISITORS PAGE/AREA

Essential items for this area include:

Festival location and date

Map to festival site

Festival site map—location of booths

Preview of activities

Links to Facebook and Twitter

Link to Contact Us

SPONSORS PAGE/AREA

Essential items for this area include:

Festival location and date

Description of the benefits of sponsorship

Link to sponsorship form

Sponsorship Organizer's contact information

Link to Contact Us

EXHIBITORS PAGE/AREA

Essential items for this area include:

Festival location and date	Link to exhibitor application
Description of activities sought	Activities Organizer's contact information
Activities guidelines	Link to Contact Us
Description of process for activity selection	

SOCIAL MEDIA

A Facebook page is essential to maximizing outreach. Though creating a Facebook page is simple, as with a Website, if you are new to Facebook, get help from an experienced user. Be sure to sign up as an organization. To do this, you will first need to sign up as an individual. Then you may create an organization page. *Knowledge Harbor* provides a nice step-by-step guide if you need assistance. (See <http://www.knowledgeharbor.com/facebook-for-small-organizations-and-associations>) Once your page is created, immediately recruit at least 25 Facebook friends for the site. Until you reach the 25-friend threshold, it can be difficult to find your page, so do this right away.

Unlike a Webpage which can be relatively static, a Facebook page should be dynamic. That means you will need to post updates regularly and to convince other Facebook users "like" you. Whenever someone clicks the like box on your page, their friends are notified. Obviously then, a quick way to create buzz around your festival is to make sure that everyone connected with your festival (and their friends, families, neighbors and anyone else they can enlist) visit your page and "like" you. Visitors can also like specific Facebook posts. So, if you post regularly (but not too often) you will provide a simple way for your friends to remind their network that you exist.

Using the microblogging tool, Twitter, you can send short messages to your followers. They can in turn retweet your message to their followers, amplifying your festival's exposure. Creating a Twitter account is simple and managing both incoming and outgoing tweets is made easy with the use of Tweet Deck (<http://www.tweetdeck.com/>), a free application provided by Twitter.

Twitter is a perfect adjunct to your Facebook page and Website. If you create a new post on your Facebook page or update your Website, you can tweet a link directing followers to check it out. As with Facebook, to maximize Twitter's usefulness, you must mount a campaign to enlist followers. It does no good to Tweet if no one is listening.

SECTION 4. MONEY

BUDGETS AND BANKS

Your festival can only be as big as you can afford. Nevertheless, if you are careful and plan well, even a small community on a limited budget can create an excellent festival experience.

Begin to draft your festival budget by creating a list of your needs and potential vendors. It is important to identify vendors so that you can check actual prices and availability. Also, identifying vendors is your first step in fundraising. Finding a shop that will print your programs for free or a grocer who will provide water and treats for the kids is just as good as convincing a company to donate cash. Don't forget that the local 4H may have a PA system or a church or school may have tables and chairs that you can borrow. [Appendix 1](#) provides a sample budget work sheet to help you get started. Every festival is unique so, remember, this is just a starting point.



Creating a budget is great, but no sponsor is going to write a check to your personal account! How will you collect donations? If you are partnering with a school, university or non-profit organization, they may have a way to collect and pass funds through to the festival. Many corporations have associated foundations that may be willing to do the same. If you can't find an accounting partner, talk to a local banker who should be able to help. Whoever you partner with, expect to pay an administrative fee (unless you get an in-kind donation). It also is likely that your accounting partner will require that the sponsor sign a contract or agreement. Even if they don't, you will want one for your own protection to make sure that both you and the sponsor are clear on what is being promised. A simple sample contract can be found in [Appendix 2](#). **BE SURE TO SEEK LEGAL ADVICE BEFORE FINALIZING THE CONTRACT.**

FUNDRAISING

Did you leave this section till last? You're not alone in dreading fundraising. The good news is, you will find that it is not too hard to find sponsors for an event that will benefit both kids and the community, especially if you have a carefully developed strategy. **BEFORE YOU BEGIN TO DEVELOP YOUR FUNDRAISING PLAN, YOU MUST HAVE COMPLETED YOUR BUDGET, CHOSEN A DATE AND VENUE, AND DEFINED YOUR GOALS, FOCUS AND TARGET AUDIENCE.** These are essential pieces in deciding who to target and for how much.

WHO

Contact local businesses, government organizations, colleges, museums, the Chamber of Commerce, non-profits and individuals. If you are planning an engineering focused festival, obviously you will want to contact local engineering firms for sponsorship. But don't forget local manufacturers who are likely to rely on and employ engineers and individuals with technical degrees and certificates in engineering related fields. They too may be happy to support an engineering festival. Hospitals also employ many engineers and may want to be associated with anything that promotes STEM. Be creative in your thinking when identifying potential sponsors.

THE "ASK"

All potential sponsors must know what they are donating for and how their money will be used. They should be given a festival prospectus that includes the date, venue, goals, focus, target audience and a budget summary. The prospectus should also provide specific information as to the recognition that sponsors will receive. One useful way to organize this information is to define sponsorship levels (eg., platinum, gold and silver) and then explicitly state the benefits that each level confers on the sponsor. You will find a sample prospectus in [Appendix 3](#). The Cambridge Science Festival Website also has some great ideas of what you might offer sponsors (www.cambridgesciencefestival.org).

When you approach a sponsor, you need to be prepared with an "ask". That is, you must know and communicate exactly what it is that you would like them to do. Do you want them to help you develop your Website, provide free advertising, or donate at the "gold" level? Be specific. Personalized, specific asks are far more likely to be successful than generic ones. Take advantage of the contacts of ALL your team members. When feasible, initial contacts should be made by a team member who has a relationship with the target individual or organization.

Tailor your ask. It would be reasonable to ask a large multi-national corporation to be a platinum sponsor, or even take on a major role as primary sponsor. On the other hand, it might make more sense to ask a smaller local company or non-profit to contribute at the silver level. Another example is if no one on your team knows anything about Website development, you might be better off asking an appropriate potential sponsor for in-kind help rather than money. Be sure that they understand that you will give sponsorship credit at an appropriate level for in-kind donations. A sample sponsor invitation is provided in [Appendix 4](#).

PLEDGES AND COLLECTION

Getting the first sponsor is the most difficult because most potential sponsors will want to know who else is sponsoring. An answer of "no one" or "I don't know" is not likely to encourage commitments. Thus, you may want to focus your initial efforts on recruiting a magnet sponsor, a sponsor that will attract other sponsors. When you approach a potential magnet sponsor, let them know that they are one of the first organizations contacted. Make them feel special. Let them know you chose them because they are highly respected in the community or whatever your reason.

Once you have a commitment from one or two magnet sponsors, it is time to begin fundraising in earnest. Organize your team, assigning specific asks to the most appropriate team member. It may help to create a spreadsheet to track fundraising efforts. A sample tracking sheet is provided in [Appendix 5](#). It also may be convenient to ask sponsors to complete an online sponsorship form. There are many free online survey services that you can use. Although "free" is nice, by paying a relatively small fee you can upgrade the service which will allow you to track and download data much more easily. Sponsors should provide:

- the title to appear on promotional materials
- the name of the sponsor contact person and their email and phone number
- a description of what is being donated (cash amount, service provided, loaned item, gifted item)
- a list of actions required by iExploreSTEM (complete an application, sign a contract, etc.)

You may wish to include your sponsor contract within the survey text for their perusal.

It's one thing to get a commitment, another to get the money in the bank. After receiving a pledge, you may have to do a considerable amount of follow-up work, including in many cases, completing a sponsor-specific application. Don't be a pest, but make sure you touch base enough to collect that which was promised. Be sensitive to the fact that it often takes 1-2 months for a company to generate a charitable donation check.

It is customary to include sponsor logos on festival materials and display them on the Website. When an organization agrees to be a sponsor, be sure to request logo files. A .jpg or similar file is fine for the Web, but an .eps file is essential for use in large sized printed graphics such as banners and posters. Collecting these files can be problematic. It helps to remind the sponsor that they cannot be recognized until you receive the file.

TO FREE OR NOT TO FREE

Many festivals, particularly those in large communities with an abundance of potential exhibitors, charge for booth space. Charges typically vary according to the size and type (for-profit, non-profit, individual, etc.) of exhibitor. Charging has the advantage of helping to defray festival costs. However, the philosophy of iExploreSTEM is that any individual or organization that wants to provide safe educational hands-on STEM activities for children should be able to do so with a minimum of barriers. As a result, iExploreSTEM endeavors not to assess any festival fees to exhibitors. Nevertheless, charging for booth space may be the only realistic option for your community.

Charging fees may be particularly problematic in the first year, before potential exhibitors have had the opportunity to experience the power and excitement of the festival. You may wish to provide booth space free the first year and charge thereafter. Unfortunately, the first year tends to set expectations for subsequent years. One approach to overcome the expectation of perpetually free booths is to ask donors to sponsor booth space. This allows them to sponsor something concrete - e.g., five booths - while at the same time it can be made clear to exhibitors that their booth is free only due to the beneficence of the sponsor. As a result, the exhibitor will not necessarily expect a free booth in the future and the sponsors get special recognition with the sponsored exhibitors.



SECTION 5. ACTIVITIES

No matter what else goes wrong, if you have fun and exciting hands-on activities, the kids at least will be happy. But, before even thinking about soliciting activities, establish selection criteria, submission rules and a selection process. The process of recruiting, selecting and managing activities requires keeping track of many details and fielding a lot of questions. Assign the task of activities coordinator to someone with suitable skills and temperament.

POTENTIAL PARTNERS

Activities are the heart of the festival. Fortunately, if you plan in advance, identifying potential activity partners (exhibitors) is simple because STEM pervades all aspects of life. Even if you live in a rural community you should have no problem. A good place to start is with colleges or universities located within a few hours driving distance of the festival site. Next, consider area businesses. They need not be a Rockwell Collins or Microsoft. Virtually every manufacturing firm has engineers on staff. Further, since modern manufacturing uses sophisticated technology, these companies employ many individuals with two-year technical degrees. Individuals with technical degrees make great role models for kids (and their parents) who may not quite see themselves as future college graduates. Also, don't forget that any company that uses CPAs has a built-in math expert, and local dentists or physicians can help design and present a biomedicine-related activity.

Don't ignore government entities like the National Guard or the State Department of Natural Resources either. Even at the local level, government departments like planning and zoning, public works, transit, and parks and recreation are likely to employ STEM professionals who can be encouraged to get involved.

Organizations like 4H, FFA, Girl/Boy Scouts make excellent partners. If there are any regional organizations for retirees be sure to contact them. Their membership may include many STEM experts, and retired individuals tend to have both the time and desire to get involved. Finally don't ignore farmers. Farmers use science and math every day and are some of America's most amazing innovators. Ask around, and you may find a local farmer who can talk about and demonstrate a cool new invention.



SELECTION CRITERIA

Your first step is to define the types of activities you would like to include and set rough quotas for each. Do you wish to include hands-on activities, competitions, demonstrations, stage events, special activities for parents, or famous scientist impersonators? Your choices will depend on your festival goals and target audience. Of course, be flexible. What you want may not be what you get. Below is a list of additional suggested selection criteria. You may have others.

Focus Area – Is the activity STEM related? If you have a STEM focus area, does it fit? If for adults, does it address one of your goals?

Target Audience – Is the activity geared toward your target age group? Is it culturally meaningful? Is it accessible?

Space – Do you have the physical capacity to accommodate the activity? Will every activity be allotted the same space? If not, how will you decide who gets what?

Electricity/Wireless – Will you provide electricity? If so, what are the limits? Will hardwire or WiFi internet connectivity be available? If so, what is the speed and bandwidth?

Capacity - An activity that lasts 30 minutes will reach only a small number of children, but may make a bigger impact than one that lasts 3 minutes but involves almost everyone. You may want to establish what is too long and too short, and decide on an appropriate mix. Whatever you do, be sure that you build in sufficient capacity to serve all festival goers.

$$\text{Booth Capacity/Hour} = \frac{(\text{max \# visitors at one time})}{(\text{activity duration in hours})}$$

Safety - Consideration for creating safe activities should be paramount. This can be accomplished by permitting only activities for which risk is essentially nil. This will greatly limit the experiences available. Another approach is to allow activities that have some inherent risk, while simultaneously establishing procedures to closely supervise children so as to mitigate that risk. A greater variety of activities can then be considered, but more volunteers will be needed to monitor these during the festival. Before deciding, be sure to consult your liability insurance policies and the regulations of the venue. They may make the decision for you! Appendix 6 provides a list of some safety considerations. It should not be seen as complete. Each individual activity must be reviewed with safety in mind.

Diversity - Whether it be the types of STEM represented, nature of the organization presenting the activity, or individuals staffing the booths, diversity matters. To maximize impact on your target audience, make sure that you have a range of activities and volunteers that will ensure that each and every festival-goer is engaged.

SUBMISSION

The simplest way to collect submissions for potential activities is through an online form. Many free platforms are available. Most offer enhanced services that are well worth the minimal cost. The information requested on the submission form must be sufficient for you to reasonably evaluate the proposal without making the process so burdensome that no one applies. This is easier said than done. As you design your submission form, remember that you can always request additional information later if warranted. Appendix 7 shows a sample submission form.

Be sure to provide potential applicants a list of the selection criteria so that they can develop an appropriate submission. Post all materials related to proposal submission on the “Exhibitor” page of the festival Website. You may want to post a guide to developing an exciting proposal. A short guide is found in Appendix 8 and is based on the longer [Tips to Create an Expo Exhibit That Rocks!](#) on the USA Science and Engineering Festival Website (www.usasciencefestival.org).

Set an application closing date. Since many (most?) of us are procrastinators, you may wish to build in a week or more of leeway time allowing you to extend the submission closing date if you find yourself a little light on proposals, or short on particular types of proposals.

SELECTION

All or part of your team, or an external group, may be selected to evaluate applications. The job of the review group is to evaluate and rank the proposals based on the basic criteria. You may wish to ask the group to make recommendations for revisions to submissions and provide “if revised” rankings as well. During or after the initial screening, you can have the primary selection team work with applicants to improve their submissions if you choose.

Upon final ranking, an internal group should make final selections that take diversity and capacity into account.. The first instinct may be to assign every festival space at this time, but reserve a slot or two for unforeseen need. You may find that you require additional storage space, recruit a phenomenal activity late in the game, or enlist a last minute \$3,000 sponsor who wants a booth. Leave yourself some wiggle room. It will not be too difficult to fill those remaining booths if you need to at the last minute.

As soon as you have made a decision, let the applicants know. It will allow those selected maximal time to gather materials and funding, recruit volunteers, and fine tune their ideas.

STAGE AND OTHER ACTIVITIES

What could be better after a couple of hours of visiting booths than to rest one's feet at a stage show? Stage shows are not an essential ingredient of a STEM festival, but they make for a nice change of pace, especially for parents tired of following kids around. If you want to include a stage show, be sure to request interactive stage routines when you solicit activities. Don't worry about programming the stage for activities all day. Breaks are ok. You can also fill interludes with science-themed music if you wish.

What if, despite your best efforts, you receive only one suitable stage routine? No worries. There are many other ways to use a stage to support your festival goals. First, consider the fact that we have all types of awards ceremonies for sports. Why not for STEM? Honor local science awardees by recognizing them on stage. Interview them or let them present their own work. And this doesn't mean just kids. Don't forget teachers, informal educators, inventors, STEM professionals or anyone in your area who deserves special recognition. Show the entire community that achievement in STEM is to be valued.

You might also want to consider showing some entertaining science videos or clips. A great place to start when looking for videos is the National Science Digital Library website (<http://nsdl.org>). Also, the National Institutes of Health LifeWorks Website (<http://science.education.nih.gov/LifeWorks>) has some excellent videos to introduce high school students to real life biomedical scientists. Many songs on the classic "Here Comes Science" by *They Might Be Giants* come with accompanying videos that are loved by younger children.

Another way to fill your stage with fun science messages is by convincing a local group of musicians to perform some science classics like Tom Lehrer's "The Element Song." You can ask some STEM professionals to answer questions about their career. (Be careful here. No boring lectures!) Ask some local gymnasts to perform while a scientist or engineer explains the physics behind their moves. Be creative.

Finally, be sure to fully exploit your festival environment. If your event is in a park, why not invite an arborist to conduct walking tours of the park to talk and answer questions about trees. If you are near a body of water, recruit a hydrologist. For indoor festivals, ask a local architect and construction engineer to explain how the festival building might have been designed and constructed. Tours of nearby lab or manufacturing facilities can be a great hit if available.

SECTION 6. MARKETING

What if there were a festival and nobody came? The exact strategy you use to get the word out about your festival will depend both on the time of year and local factors. Your potential for success will increase immensely if you work with an experienced marketer to develop and implement your plans. If you are not sure where to find one, talk to larger local businesses or organizations. They may have someone on staff who can help you. If not, contact a nearby college or university that offers a business program; a faculty member or advanced student may be willing to work with you.

Your first step is to decide on the message. The message needs to be structured to attract parents and children to the event while staying true to the goals and objectives. It should convey the key elements associated with all STEM festivals: fun, education, career readiness, inclusiveness and community spirit. Although the statistics on how well U.S. children are performing in STEM may be worrisome, don't try to scare families into coming. Keep your message positive. It is important that STEM learning be portrayed as fun, not a necessary evil. Also, if you use the term "STEM" in your marketing, be sure to define it. Most of your target audience will be unfamiliar with the acronym.



Once you decide on the message, it must carry through on all marketing pieces. How it is delivered, however, will depend on your target audience. For example, you will want to use a different delivery for kids than for teachers. Also bring "coolness" into your marketing if possible. Try to associate the festival with a kid-relevant current event or recruit a popular local personality to be a spokesperson.

Branding is important. That means, every Webpage, poster, email or whatever must be immediately recognizable as coming from iExploreSTEM. The simplest way to brand is to display the iExploreSTEM logo on every document. You may also create a slogan. If so, include it too, but make sure the slogan won't offend anyone.

Although you may know exactly what a STEM festival is, your target audience may not. Make sure that marketing pieces convey the message that this is a street fair-like event, not a formal structured program. Also, don't forget to include date, time, location and Website on all materials.

Timing is everything in marketing. As discussed below, your marketing schedule will be dictated to some extent by the partners who help you promulgate the materials. However, within these constraints, you want to reach both people who plan in advance and those that decide at the last-minute. Work with your partners to first notify potential festival goers 3 weeks to a month in advance and then again a few days before the event.

MARKETING THROUGH SCHOOLS

ADMINISTRATION

As with any event that involves children, the obvious first place to reach them and their parents is through the schools. Not only do schools interact with children about half of the days of the year, they regularly communicate with parents through their Websites, emails and flyers. Given that iExploreSTEM is free and educational, you might expect schools to be happy to help spread the word about your event. For the most part they are. However, school district rules and school-specific idiosyncrasies can sometimes throw up unexpected road blocks. Moreover, some schools get requests from a myriad of worthy causes. They cannot constantly bombard students and parents with masses of information. To be sure that iExploreSTEM makes it to the top of their priority list, contact local school administrators and school

district offices well in advance, ideally at least four months before the event. Explain to them how iExploreSTEM supports their efforts and why you would like their help in getting the word out. Once they agree to help, make sure you understand what you need to do and your deadlines to ensure that your message reaches students and parents at each school when it should.

TEACHERS

Teachers can be great advocates if they are convinced that iExploreSTEM will support or extend classroom learning. To help them see the benefits, you can, for example, highlight the state standards that the festival addresses. You can work with them in advance to identify and include activities that can help them achieve specific classroom learning objectives. Many teachers will offer extra credit to students who attend the festival. One way you can support their efforts is by developing a festival passport that can be stamped after a student completes a festival activity.

If you have only a few schools in your area, you may be able to convince someone in your leadership team to track down teachers' email addresses. If you have to purchase an address list, check that the list dealer is reputable and will provide a recently updated list. Also be sure you understand exactly what they will be providing and in what format.

PTO/PTA

The PTA/PTO can be another great help in promoting your festival. They reach most or all parents but with a slightly different voice than the school administration. Whereas a school administration may be willing to announce a festival, the PTA/PTO is more likely to actively promote it. Because these groups typically meet only monthly, contact them early – ideally 3-4 months in advance. If they have a Facebook page, ask them to like you.

MARKETING OUTSIDE THE SCHOOL

It is in the best interest of your sponsors to have a well-attended festival. Ask them to help promote it. Provide them marketing materials. Send them a festival link that they can put on their Website. Ask them to spread the word among their own employees. The same goes for exhibitors. They too will want to reach as many people as possible and should be happy to assist.

Working through churches is an excellent marketing strategy. As with schools, you can't just send an email and expect the minister to notify the congregation. You need to work with the church minister and administration so that they understand how their congregation will benefit. Ideally, meet with them early in the festival planning stages to get a handle on how you can best serve their congregations. This is particularly true when reaching out to churches that minister to largely underserved populations.

Many informal education and non-profit organizations (e.g., Boys/Girls Clubs, Boy/Girl Scouts, 4H, Big Brothers/Big Sisters) will be happy to help you get the word out about your festival. Take advantage of this. Don't forget senior centers. Many grandparents are looking for fun things to do with their grandchildren. Be sure to contact organizations far enough in advance that they have time to include material on their Websites and in their newsletters.

Many cities, arts councils, chambers of commerce, and other civic organizations have events calendars. Contact them to get your event added. Colleges and universities also maintain calendars. As long as a few of their students, staff or faculty are involved in the event in some way, a school is usually happy to add the event to its calendar.

MARKETING MEDIA

You've created a Facebook and Twitter account. Use them! Nowadays, social media are probably the most powerful marketing tools. If you have faithfully been expanding your network of 'friends' and 'followers', the groundwork has been laid for effective social media marketing. You need simply to remind these friends and followers about the event at the appropriate times and drive them to your Website for details.

The most expensive, and probably least effective, way to promote your festival is through the traditional mass media outlets. Television commercials are normally out of the question. Radio and newspaper may make sense in certain markets, but certainly not all.

Due to media fragmentation, it is difficult to reach a large number of relevant listeners on a single radio station; listeners to the selected station(s) must be of the appropriate demographic group. Furthermore, in order to have a significant impact, advertisements must be heard multiple times by the same individuals. In some rural areas where radio station choices are limited and ads are less costly, radio ads may be useful. Otherwise, paid radio advertisements will likely not be cost-effective.

You may be able to get some free radio exposure, however. Many stations announce community events; get yours on the list. These events are typically both read on air and appear on the station's Website, so you double your exposure. Also, contact local talk shows. Find out if any are willing to interview you or an iExploreSTEM consultant about STEM in general and your event in particular.

As with radio, whether or not to run newspaper ads will depend on the market and the fraction of people that read the local paper. You can get this information from the newspaper. If you do choose to advertise, it is important to consider where in the paper your ad will be placed. If there is an entertainment section, ask for it to go there. Make it big enough to get noticed. One large ad is better than three tiny ones. Work with your graphic designer to make it catchy and include the festival logo to brand it. Take advantage of any free exposure you can get from the paper. Ask to be included in their events calendar. Talk to them about doing a feature article on the festival. If they agree to it, run an advertisement or two as follow-ups depending on the timing. Many newspapers will be reluctant to run a feature before the event because there are no pictures. Help them by organizing a small pre-event so that they can get great shots of local kids doing fun things.



SECTION 7. PHYSICAL LOGISTICS

SITE PLAN

Whether an indoor or outdoor venue, you will need to create a site plan. View this as a fluid document. A typical outdoor site plan includes the location of:

Tents w/Booths	Toilets
Non-Tent Exhibits	First Aid
Stage	Fencing
Food/Drink Vendors	Waste/recycle containers
Entrances/Exits	Signage
Information Area	Electrical generators if needed
Registration Area	Powered Areas
Trees/Bushes/Obstacles	WiFi Areas
Parking	Lighting

There will be excited active children in the booths that will spill into the walking paths. Make sure your paths can accommodate them. You may wish to consult your local fire marshal or **facility safety** engineer.

TENTS

Reserve tents for an outdoor festival well in advance, especially if you are planning a summer festival. Use only tents that require professional installation; they are the most stable. Installation costs are usually included in the rental fee, though delivery may not be. Every site should have an information booth; this is best located in its own small tent near the entrance.

If using staked tents, a few days before installation, the rental company should arrange for local utility companies to mark underground wires. Be sure that they do! You will have the option to rent tent sidewalls and lighting. Your choices will depend on the tent layout. Tents and the pipe and drape used to demarcate booths are expensive so well-planned layouts are important. As Figure 2 shows, a 30' x 60' tent efficiently accommodates twelve 10' x 10' booths while providing some rain protection while providing some rain protection.

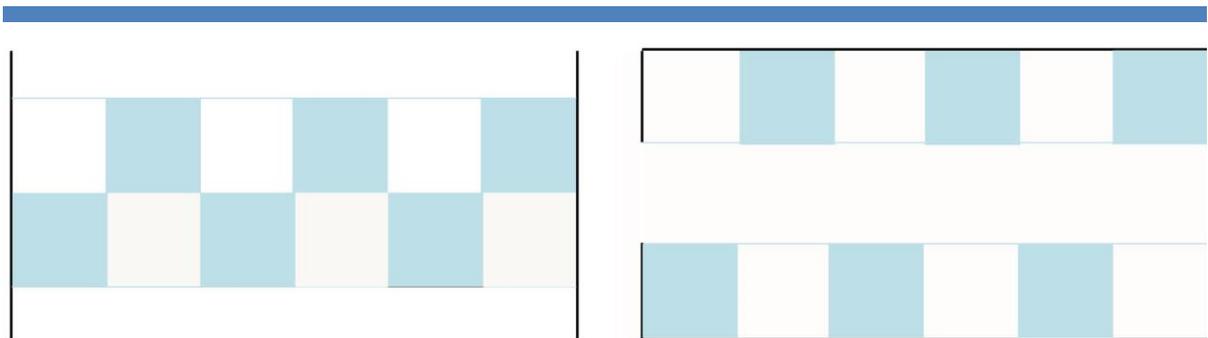


Figure 2. Efficient layouts for 30' x 60' tent. Both offer rain protection to visitors.

SPACE ASSIGNMENT

Space assignment should not be random. For example, if children will make planes or stomp rockets, those activities would best placed at the end of a tent or near an indoor space where kids can test their creations. Consider giving your prime sponsors the most visible booths. If outdoors, cluster activities that require electricity so that distribution is easy. On the other hand, if indoors, spread them out so you don't overload circuits. If providing internet access, locate activities accordingly. Finally, think about whether you want to cluster activities by type (e.g., engineering, math, biology, earth sciences, etc.) or disperse them so that different STEM areas are represented throughout the site.

Expect that some activities will not fit neatly into booths. You may have an ambulance, mobile bio-lab, large robots, or a trebuchet building activity. Siting these should cause no particular issues as long as you consider safety and foot traffic flow and if they provide their own electricity. Make sure that these activities are not physically distant from the booths and provide adequate signage so that festival goers don't miss them.

BOOTHS

Minimum booth space is $\sim 100 \text{ ft}^2$, but if you have the luxury of providing more space, $\sim 120 \text{ ft}^2$ is ideal. (Space costs money.) Booths must be clearly demarcated. This is most easily accomplished through the use of pipe and drape dividers which can be rented. Order well in advance.

Provide each exhibitor with at least one 6' table and two chairs. These can be rented. Though not strictly required, the use of table skirts is highly recommended. It will give the exhibitors a place to hide their boxes and supplies and make the entire festival more visually appealing. You can rent cloth table skirts, but it is cheaper to buy plastic skirts. If you are careful, they can be reused. Rental tables can be pretty dismal, so expect to provide table covers. Plastic covers are inexpensive. You can buy the plastic by the roll, but cutting it is time consuming.

PARKING

Parking is always an important consideration. Of course there must be enough, but also, if at all possible, visitors should not need to cross a busy street to move from parking to the festival site. Be sure to provide adequate close-in parking for handicapped visitors. If you anticipate special visitors, you may wish to set aside a few VIP spots as well. If you expect buses, designate a passenger drop-off area and a parking area for the buses.

Exhibitors need not park close to the event, so you may wish to designate a more distant area of your lot for them. However, they will need to be able to drop-off and pick-up their materials as close as practicable to their booth. The area can be demarcated with traffic cones, crowd control tape, and signs. To avoid confusion and aid in traffic flow, exhibitors should be expected to drop off materials well-before the festival start time. Unloading should be complete one hour before the festival start. This not only clears the lot, but also helps make sure that the activities are up and running by the time the festival opens. This area should be monitored by a volunteer to answer questions and to make sure the process moves along quickly and smoothly.

STAGE

A raised stage is ideal, but simply cordoning off an area will work if visitors can be seated. The stage need not be large, but there must be good separation between the performers and audience, especially if there is any risk of injury to the unwary passerby or over-excited audience member. If the stage is large this is simple. If not, make sure a large area is roped off. The stage should be protected from rain.

Be sure that there is adequate room for the audience. Chairs are a nice touch if you have the space and money; they provide a respite for festival goers. If you provide chairs, leave space near the stage where children can sit on the floor/ground to watch and participate.

You will need a microphone and some sort of sound amplification. Some stages come with a sound set-up, but if not, separate sound systems can be rented (or borrowed). Be sure that the system is loud enough but not too loud for your venue. If you will be playing music or videos, bring a CD player or computer. Make sure that the AV device can be connected to the sound system. Test it. Don't assume. All of this requires electricity so check with your electrician to make sure you have adequate power.

ELECTRICITY AND INTERNET

Your proposal submission instructions should have specified the maximum wattage allowed per activity, and all proposals should have detailed electrical needs. Indoors, the building supervisor will be able to determine if there are capacity issues and help you assign rooms or areas accordingly. Use of extension cords must follow local fire and safety regulations. Providing electricity outside is possible but expensive. You **MUST** work with an electrician. Compile a chart indicating the amount and location of electricity needed throughout the site. Your electrician will be able to ascertain the number and capacity of generators and the number of distribution boxes and power cords required. They will also be able to advise you on local code for outdoor shielding of cords.

Electrical generators are noisy, place them as far from activities as feasible and shield them if possible. Also, be sure to require exhibitors to supply their own power strip if they plan to use multiple pieces of equipment. Have a few spares on hand for those who forget.

If offering internet connectivity, verify that you have the capacity. Make sure that each booth is near its own hardwire connection or that WiFi is available in the room or area. Provision of outdoor internet connectivity is impractical, though some exhibitors may choose to use their own 3G/4G connection.

SANITATION, HEALTH, AND SAFETY

Indoor venues generally have plenty of bathrooms, but check to be sure. Verify that they don't require key access and that there is an accessible bathroom. If you are outdoors and have no facilities, rent portable toilets. A good rule of thumb is one toilet per fifty people per four hours, but check with your provider. Accessible toilets are available. As with tents, reserve these well in advance. The vendor will deliver and pick these up. Locate these away from any food vendors.

Waste and recycle containers can be rented or purchased. Receptacles should be located near the toilets and food vendors and in other clearly visible areas throughout the site. Consult your provider to determine how many you will need. Make arrangements in advance to dispose of collected waste.

Unless you are holding a very large festival, a first aid station is not practical. However, you may be able to get a first aid station and activity rolled into one. Your community ambulance service may be willing to send a unit and crew to the festival for ambulance tours. This may involve a cost, but with good negotiations, it should not be prohibitive, and if a medical emergency arises, you will be well-prepared.

Generally there should be no need for on- or off-duty police on site, but your community may require safety officers. Also, if you anticipate traffic issues or if visitors will need to cross a busy street to access the site, it may be well worth your while to hire an officer to direct traffic. In any case, you certainly should inform local law enforcement of the event.

SIGNAGE AND FENCING

Plan signage carefully. It can make or break a festival. Lost and confused exhibitors and visitors are not happy.

The first thing a visitor will need to find is the festival site. Make sure they can. Get permission to post signs at nearby major intersections if necessary. Festival pennants on tall (rented) dori poles can be used to help lead visitors to the site. Once visitors arrive, direct them to parking. Judicious placement of traffic cones can supplement parking signage.

Be sure accessible parking is clearly demarcated. Signs should guide visitors along the safest direct path from parking to the venue. Temporary fencing (e.g., garden stakes with police tape or snow fencing) may be useful to keep visitors on the desired path and out of dangerous areas.

Whether indoors or out, entrances and exits should be clearly marked. Place the entrance as close to parking and public transportation stops as feasible; avoid making visitors walk around a building or festival site if possible. If you prefer to use only one entrance, multiple exits should be prominently labeled in case of emergency. If outdoors, temporary fencing can be used to help guide festival goers to desired access points and define the festival space. This can facilitate festival assessments that are designed to sample visitors before and/or after the festival. Fencing should also be used to keep visitors from straying into nearby streets or anything else that could pose a danger to the visitor or damage the facility. If using electrical generators, snow fencing can separate them from festival goers.

Finding restrooms is always a challenge in an unfamiliar place and is even more so when the site is crowded. Spare the parent of the excited child who waited till the last minute. Help visitors find the restrooms quickly. Additional signage should help festival-goers find the information booth, food and beverages, and the first aid station if you have one. If not all activities are adjacent to one another, be sure that visitors can find them all. For example, if most activities are in tents, it's easy to miss those in a field 50 ft away. Also, remember signs pointing to the stage if it's not obvious. Signs also can help direct exhibitors to materials drop off locations. Once the drop-off period is ended, you may wish to remove the signs so as not to confuse festival-goers.

Besides logistical signage, you will want to create signage to identify and brand the festival. At a minimum you should have a welcome banner with the festival logo and name at each entrance. You will also need a banner to thank sponsors. Commonly these include the logo of each sponsor scaled to the size of the donation or effort they contributed. Well-designed banners and signs can make your event more festive, but signs are expensive so plan their usage carefully. Banner orders usually take ~2 weeks, but can take up to one month. Since things can go wrong in the printing, if possible, allow yourself enough time for reprinting should a problem arise. You may want to wait to print sponsor banners, however, in case of last minute additions. Don't be shy about signage – a single sign is easy to miss. Use **BIG** signs.



It is important to develop and provide exhibitors with signage regulations, including specifications on sign placement and size. Every booth must be clearly identified with the activity title and exhibitor affiliation. Exhibitors can provide their own, but if you want a uniform look provide templates that they must use or make signs for them. Commonly, exterior signs are provided by the festival while exhibitors bring their own interior signs. To avoid creating obstacles for pedestrians and to maintain a uniform look, it is wise to prohibit exhibitors from placing any signs or structures outside of the booth.

SECTION 8. ALL THINGS PEOPLE

Every festival has a planning team, sponsors, exhibitors, volunteers, and visitors. The first two groups were discussed earlier. Here we focus on coordination of and obligations to the last three. First, however, the one document that all groups will find essential in navigating your festival will be discussed – the program.

FESTIVAL PROGRAM

Every festival needs a program. While many visitors will ignore them plenty of others will use them to locate a specific activity or to explore the range of activities available. Exhibitors will find them useful in finding their own booth, and volunteers will use them for pretty much everything.

There are a few key elements that every program should include:

- Event Schedule – Opening and closing times and schedule of stage activities and other special events
- Site map –Big enough that it can be read without a magnifying glass
- Activities List –Activity name and provider, and site location, and short description of activity if possible
- Sponsor Acknowledgement –Logos and/or a list indicating sponsorship level
- Emergency Information – Call 911 for a life-threatening emergency. Call or go to the information booth for others
- Contact – Festival contact information for post-festival complaints, compliments, or questions.

No matter how carefully planned, every major event requires last minute adjustments. To allow for this, print your programs as close to the festival date as possible. If a desire to print a full color glossy fancy program or some other reason requires you to print the program far in advance, no worries. Print your glitzy material as a bi-fold cover early, and then add a less glamorous inner page printed at the last minute.

EXHIBITORS

It is essential that you notify exhibitors that their activity has been selected in a timely fashion. In your notification email, remind exhibitors of your safety and signage regulations. Exhibitors may not think it's a big deal to bend the rules a bit, but the injured child, parent, or your insurance provider likely won't see it that way should anything go awry. Also, post this information on your Website and include the link in the notification email. If you don't wish to share the information publicly, create a password protected area of your Website.

As soon as all activities have been selected and mapped on the site plan, send a copy to each exhibitor and request verification that the chosen site allotment meets their needs for space, electricity, and internet. The application should have specified their needs, but we all forget things. Work with the exhibitor, but if you cannot meet the needs the application did not mention, replace the activity as quickly as possible. Expect many questions, often for which you have already provided answers. (Don't get annoyed.) Be prepared for requests for additional resources, and even complete substitution of activities. Be as flexible as possible, and always be nice.

Many exhibitors will want to hand out literature about their organization, program, or activity. Some festivals forbid this due to the litter it creates and/or to avoid any appearance of endorsing an organization or company. If you permit handouts, you may want to limit the quantity. You can also create a literature area – perhaps at the information booth – where all exhibitors can leave literature. However, probably the easiest way to manage festival paper, and the one that leaves you with the happiest exhibitors, is to give every child a festival bag as they enter the site. If you have enough volunteers, you can even pre-stuff bags.

Throughout the festival planning process stay in regular contact with your exhibitors. Some will need a little more care than others, but all should be kept informed about festival progress. Don't drive them crazy. An email about every two weeks should suffice to remind them of their commitment and provide relevant information. About two weeks before

the festival email festival day instructions and reminders. At a minimum these should include

- Final booth allocations and a site map
- Driving instructions to the festival
- Signage specifications and safety rules
- Festival day information sheet (See [Appendix 9](#) for a sample.).

While some booths take little time to set-up, others can require extensive preparation. Be kind to your exhibitors. Give them plenty of time to set-up – at least three hours. Instruct exhibitors to have completed the drop off all materials at least one hour prior to festival opening. A volunteer stationed at the drop-off point should ask exhibitors to proceed to exhibitor sign-in as soon as they have delivered their materials to their booth.

Sign in is critical so that you can record the on-site lead (responsible party) for each booth. Get contact information for the lead in case any matters arise after the festival and ask for an emergency on-site cell phone number. You should also give exhibitors an information packet clearly labeled with the booth location, activity name and host organization. Unclaimed packets will help you track down exhibitors who failed to sign-in. Packets should include:

- | | |
|-----------------------------------|---------------------------------------|
| Three exhibitor badges | Three volunteer acknowledgement cards |
| Two copies of the program | Emergency information |
| A festival day information sheet. | A thank you message |

VOLUNTEERS

Every festival should make use of volunteers; volunteer input maximizes community ownership of the event. Below is a list of categories of volunteers that you are likely to need. You may have additional site-specific needs. How many of each you will need will depend on the size of your festival.

- Information/Greeter – Give festival attendees bags and materials upon entry
- Information/Rover – Wander the festival and assist festival attendees as requested, pick up trash as needed
- Information/Booth attendant – Provide information and water
- Parking lot assistant – Direct attendees to parking and festival site
- Emcee – Make announcements and emcee stage presentations
- AV specialist – Set-up, tear-down, run AV equipment
- Electrician – Set-up, tear down, troubleshoot electrical issues
- Evaluation assistant – Assist the iExploreSTEM evaluator; may require some advance training
- Set-up volunteer – Help with set-up and exhibitor check-in and monitor exhibitor drop-off area
- Tear-down volunteer – Help with tear down and monitor exhibitor pick-up area

Finding volunteers should not be difficult. The trick is to get them obligated to your festival far enough in advance that they still are free, but close enough that something more enticing doesn't come up to displace you. About 6-8 weeks in advance, approach a few organizations (e.g., colleges, businesses, non-profit groups or churches) about assembling teams of volunteers. Help them by providing a volunteer sign-up form that includes information about the festival and allows potential volunteers to indicate their preferred assignment. A sample recruitment form can be found in [Appendix 10](#).

From the information provided, keep a running spreadsheet of who can work at what times to make sure that you fill all required slots. You'll want to match them to their preferences to the extent possible. Once you have assigned a task and time slot to a volunteer, be sure to let them know so that they can lock the time down on their schedule. A typical shift is ~3 hours, though many will be willing to work longer. You need not assign everyone a task. Keep a couple of your more flexible volunteers in reserve to cover for no-shows and unanticipated needs.

All volunteers require training. Though it may be convenient for you to hold training in advance, it probably won't be for the volunteer. Plan on-site training for the day of the festival. All volunteers should be able to answer "where" questions, so training should include a tour of the festival site. Make sure you allow time for this when assigning shifts and that your volunteer coordinator is prepared to conduct the training. About one week before the festival, send an email to your volunteers with a site map and instructions on where to report upon arrival. You may wish to send other pertinent information.

To simplify volunteer coordination on festival day, prepare packets for each in advance that include a:

- | | |
|------------------------|-------------------------------------|
| Name badge | Exhibitor regulations |
| Program | Task specific instructions (if any) |
| Large site map | Thank you message |
| Emergency instructions | Volunteer acknowledgement card |

Volunteers must be clearly recognizable by visitors. For the budget-minded, aprons bearing the festival logo or slogan work well. They can be handed off from volunteer to volunteer at shift change and used for multiple years. If you can afford it, T-shirts or hats make good identifiers and can double as a thank you gift for your volunteers.

It is important that you thank your volunteers. In lieu of volunteer apparel, common gifts are coffee mugs and water bottles. But if you take the time to explore, you will find many other excellent, inexpensive, creative alternatives. Whether or not your budget allows for a gift, every volunteer should receive a post-festival thank you email or card. In addition, many student volunteers have school-related community service requirements. Prepare a letter or card for them that they can turn in at school. The card used in the first iExploreSTEM is reproduced in [Figure 3](#).



Figure 3. Volunteer acknowledgement from the first iExploreSTEM.

VISITORS

Almost everything you do for the visitor is related to the activities. Nevertheless, everyone expects to get some giveaways at a festival, so be prepared. An essential give away is the logo imprinted bag. They are quite inexpensive, are great advertising, give kids (or their parents who actually carry them) a place to put festival goodies and make tidying up after the festival a much easier task. If you have volunteers available, you can also pre-stuff the bags with goodies and flyers. Including a snack to keep the kids happy is worth consideration if a local vendor will donate them.

Whether you supply it for free or charge, it is essential that you provide water. Also, consider contracting with a food vendor or two. A food break is a nice respite for kids and parents.

SECTION 9. THE FESTIVAL AND AFTER

As festival day approaches you want to make sure all your logistical ducks are in a row. In addition you will want to contact volunteers and exhibitors with last minute logistical information.

FESTIVAL DAY

SET-UP AND TEAR-DOWN

How long can it take? We just have to do a few things. Whatever you think, set-up can take an extraordinarily long time. Anything that can be done the day before the festival should be done then. That includes erecting the tents (if used) and obtaining the keys to relevant facilities like bathrooms, electrical closets and stage facilities. Set up the pipe and drape, place the garbage cans, put up the signs, set up the fencing, move the tables and chairs, cover and skirt the tables, prep the stage and on and on. You get the picture. It takes a lot of volunteers and/or a lot of time to complete all of the set-up tasks. Walk through all of the tasks on-site if possible, or in your mind, if not. Don't just guess that it will take two people two hours to set up the pipe and drape, calculate it. If it takes six minutes per booth and you have 36 booths, you're quite a bit over two hours aren't you? Plan appropriately.

Unlike set-up, tear-down tends to take less time. However, it is the task for which you will have the most difficulty recruiting volunteers. And, as the site clears out and there are only a few of you left, volunteers have a tendency to wander off when everything is "almost done". Unfortunately, it may be almost done if there are twelve of you to finish up, but not if there are three. One way to help your tear-down crew is to ask your last shift of pre-closing volunteers to complete a small tear-down task. For example, each person might be asked to remove pipe and drape, fold up table covers and carry chairs and tables to transport racks from four booths. The tear-down crew will then have a huge head start and be motivated to stay till the end.

BOOTHS

It is important that booths be ready to go on time. Many festival goers arrive early and will be raring to go as soon as the site opens. Similarly, some families will arrive late and should not be penalized because their schedule didn't allow them to arrive earlier. Exhibitors should not start closing up shop early. Of course, you don't have a lot of control over what your exhibitors do and do not do, but if you work with them, you should be able to keep late start/early close issues to a minimum.

During set up, a festival organizer or two (not volunteers) should visit all of the booths. You will want to greet all of the exhibitors and thank them for coming. This will also give them a chance to ask any last minute questions or get help with any special needs. Importantly, it will give you a chance to determine if there is any egregious deviation from festival rules or safety regulations.

It is essential that every activity be staffed **AT ALL TIMES**. While theft may be an issue, the primary concern is that a visitor could get hurt. If an exhibitor must leave a booth for a brief period, impress upon them the need to request a volunteer to "babysit" the booth in their absence. Filling in should not, of course, be encouraged, but minor emergencies arise.

SECURITY

If you rent anything for your festival – and undoubtedly you will - it will most likely be delivered or picked up the day before the festival. This is a problem when you realize that you have no secure place to store 40 tables and 80 chairs overnight. Potential solutions include renting a storage trailer, hiring a security guard or simply trusting that no one in your community will steal anything. However you deal with it, have a plan in place before anything is delivered. Don't forget that the same may be true for after the festival. You may need to store rental items the night of the festival too.

In the absence of a compelling reason, it is best not to allow exhibitors to store equipment or materials on-site. However, again, if you must, be prepared. Make sure that exhibitors understand that you take no responsibility for damage, loss or theft.

While it is unlikely that you will need festival-day security, only you know your venue. If you feel it might be advisable, talk to the facilities manager or local law enforcement for advice.

THE DAY AFTER

FINAL SITE CLEAN-UP

Whew! The festival is over. Hurray, you are done! Well, almost. Chances are you will have portable toilets, tents, trash and such to be picked up. Arrange for someone to make sure this happens. If you have borrowed anything, this is the day to return it. Did you throw lots of “stuff” in a box during tear-down? Sort it, clean it and put it away. Don’t wait until the items are ruined or you’ve lost track of them.

KEEPING THE EXCITEMENT ALIVE

People will want to experience the festival again. As soon as possible, post pictures and/or videos of the festival on the festival Website. Link to them on Facebook and tweet as soon as they are posted. The photos and videos that you collect this year will be great tools in recruiting activities and sponsors in future years. The Website and Facebook page are good places to once again acknowledge your sponsors and to thank exhibitors and volunteers. You may also want to list the festival planning team and give them a round of applause.

THANK YOUS AND SPONSOR REPORT

The day after the festival is a very important day for another reason. This is when you will send out your visitor and volunteer thank you emails. These should be prepared in advance and should contain a link to the appropriate evaluation survey for exhibitors and volunteers. (See below.) Have an email list ready and associated with each thank you so that they can be sent without effort. You will be recuperating from the festival and thinking may not be high on your priority list the day after.

The financial report is an essential component of the report that you will send to your sponsors. Clear all invoices as quickly as possible, and if any unexpended funds remain, make the necessary accounting arrangements to return them or to set them aside for the next festival. As soon as this is done, prepare the financial report. You may wish to prepare a detailed report for internal use and a more general report for your sponsors.

What you choose to include in your sponsor report is up to you, but in addition to the financial report it should include data on festival attendance. Other items you may wish to include are survey and evaluation data, photos and items in the media. A sample report is provided in [Appendix 11](#). The report should be prepared promptly and accompanied by a thank you letter.

EVALUATION

Did your festival meet your objectives? What can you do better to keep visitors, exhibitors and sponsors happy in future years? The only way you can answer these questions is by assessing your festival. Because of this, all iExploreSTEM affiliates are required to perform festival evaluations.

iExploreSTEM is part of the Science Festival Alliance. The Alliance has received funding from the National Science Foundation to develop an assessment protocol and tool for use by participating STEM festivals. This includes all iExploreSTEM festivals. The number of visitors that can be surveyed at individual festivals is typically small. Hence, the use of a common assessment approach across festivals is important, because the data then can be compiled from a

large number of festivals to yield a meaningful sample size. The compiled data will be evaluated by education research specialists and shared with the STEM festival community to provide insight into the impact of STEM festivals on attitudes toward STEM. An assessment toolkit will be provided to iExploreSTEM festival affiliates as soon as it is available and affiliates will be required to use the kit's protocol and surveys.

In addition to assessing the impact of your festival on visitors, it is important to survey exhibitors and volunteers to learn what you did well and how you might do better. To maximize response, send an email with a link to an online survey. The surveys should be short and designed to capture only truly relevant information in simple multiple choice format with an option to provide additional information. Do not wait long to send the surveys. They should be ready to go before festival day so that you may send the survey link as part of your day after the festival thank you email. A sample post-festival survey is provided in [Appendix 12](#).

You will gain much insight into the goods and the bads of the festival through your surveys. However, there is a lot that goes on behind the scenes that only the festival organizers and a few key volunteers ever see. It is important to capture insights that this group can provide through a festival debriefing. The debriefing should be held within a week of the festival so that memories are fresh. It is a good idea to schedule it before the festival. Debriefing information should include not only thoughts about ways to improve the festival experience but also ideas on how to streamline and improve the planning process.

THE NEXT FESTIVAL

If you had as much fun as most festival organizers, you will be thinking about your next festival. Over the month following the festival collate all your documents, surveys, debriefing notes and whatever other materials you may have. You'll want them ready and easy to find for the next go round. Make sure all invoices are cleared, and if any unexpended funds remain, make the necessary accounting arrangements so that they will be available for the next festival.



APPENDICES

- APPENDIX 1. BUDGET WORKSHEET
- APPENDIX 2. SAMPLE SPONSOR CONTRACT
- APPENDIX 3. SAMPLE PROSPECTUS
- APPENDIX 4. SAMPLE SPONSOR INVITATION
- APPENDIX 5. FUNDRAISING TRACKING SHEET
- APPENDIX 6. CREATING A SAFE ACTIVITY
- APPENDIX 7. ACTIVITY SUBMISSION FORM
- APPENDIX 8. CREATING EXCITING ACTIVITIES
- APPENDIX 9. FESTIVAL DAY INFORMATION SHEET
- APPENDIX 10. VOLUNTEER COMMITMENT FORM
- APPENDIX 11. SPONSOR FINAL REPORT
- APPENDIX 12. EXHIBITOR POST-FESTIVAL SURVEY