



## Tips for Planning and Designing a Super Activity

(adapted from the USA Science & Engineering Festival Website)

**Use the 3 Modes of Learning.** Remember, people learn by listening, by seeing and by experiencing. Creating an exhibit and booth that engage all three learning modalities will have the greatest impact. With that in mind, the most successful exhibits will be those that are engaging, hands-on, interactive and accurate in the information they convey.

**Involve Students.** If you are an educator, involve your students in planning, designing and participating in the booth exhibit. This will engage them in the science that is meaningful to them and showcase them as budding experts.

**Always Consider Your Audience.** The Festival will attract families with children of various ages, so your booth should have information and activities that can be adapted to different age ranges if needed.

As a general rule, all booths should be targeted at an 8<sup>th</sup> grade level of science understanding or below. Booths can be targeted at younger children but should not overwhelm the audience with the science. Ideally, all booths will be staffed with an “expert” so the subject matter can be brought up a level if so engaged.

**Speak in Clear Layman’s Language.** When verbally communicating with your audience, be careful not to use too many technical words and terms. Speak in layman’s language, and with children, use “kid friendly” words and examples. When technical terms are used, make sure you follow it immediately with a clear, concise explanation. And remember that humor, smiles, voice inflection and gestures are other good ways to keep your audience engaged.

**Develop a “Take Home” Message.** Plan your booth around one clear, main “take home” message to be conveyed in an interactive hands-on activity. Communicate this message to the audience within 30 seconds of engaging them. This message should communicate or demonstrate that STEM is indeed part of our everyday lives, and should be tied to the STEM concept that you wish to share.

**Give Them Something to Touch.** Keep in mind, “wiz-bang” demonstrations can be exciting but are very ‘static’ to audiences. Participants love to touch things and be physically active in the learning process. Interactive tactile activities are the most fun and memorable. When planning, think about what interactive experience would draw you into your booth if you were a spectator, and then plan accordingly.

**Keep Your Presentation Active By Asking Questions.** STEM discovery is fun, so keep things light and moving along. But make sure your audience is thinking about what they are learning, so keep the learning process active. Ask young learners probing questions from time to time, such as “What do you think caused that?” or “Why did that happen?” Ignite a flame of curiosity in your audience!

**Don’t Forget Passersby Who May be Interested.** While exhibit staff is busy engaging your audience, assign a volunteer or two to draw in others passing by your activity. Words like, “Come on in and check out this great science innovation” can be effective in increasing your audience and participation.

**Planning for Supplies and Booth Staffing.** Plan adequately for the supplies and give-away materials your activity will use. Plan to reach ~ 100 people. Aim for a hands-on activity that lasts a few minutes and can engage 4-5 participants at a time.

At least 2-3 college age or older individuals should staff the booth at all times. Volunteering for a booth can be exciting but exhausting, so you may wish to use two volunteer shifts. Make sure everyone is well trained beforehand. Try to keep an “expert” on hand at all times for the tough questions and to answer inquiries about STEM careers.

**High and Low Tech Activities.** An activity can be “high tech” like letting kids explore virtual reality headsets, or they can be “low-tech” like making virus particles with marshmallows and tooth picks. The goal is an interactive activity that teaches your “take home” message.

**Booth Decorations.** Decorate your booth to be visually attractive through table and tent decorations. Be creative with visual graphics that will draw attendees to your booth.

**Staff and Volunteer Attire.** Matching outfits for your staff and volunteers are highly encouraged. Matching t-shirts, lab coats, uniforms and name badges not only give your exhibit a more cohesive, team-like atmosphere, but also lets people know to whom to direct their questions.

**Activity Safety.** Keep in mind any safety precautions for an activity and plan accordingly if your booth requires lab coats, gloves or safety glasses.

**Kids Love to Get Messy!** Kids **love** to dig in and get messy and dirty so don’t be afraid to plan a messy activity. Just be sure to bring any necessary cleaning materials (paper towels, trash bags, etc.) and safety equipment for your participants.

**Publicize and Promote Your Exhibit.** Use your website, email, news releases, flyers, etc. to let folks within your organization and the general public know about your exhibit several weeks in advance.

**HAVE FUN!!**