

Building Relationships with STEM-Rich Partners

Professional Development Situation: Face to Face - Level 1

Skill Focus: Connecting with Community Partners

Time Required: 90 Minutes

Purpose: Frontline staff and volunteers will seek out community partners and utilize their strengths in STEM to enhance programs. Frontline staff and volunteers will identify shared goals and develop partnerships with STEM-rich local business/industry.

Time Required:

Pre-session Preparation by Participants: 15 Minutes

Workshop Session Length: 90 Minutes

Post-session Follow-up by Participants: 10 Minutes

Objectives:

As a result of ongoing, consistent professional development efforts, frontline staff and volunteers will be able to:

- Brainstorm program and partner goals
- Identify STEM-rich local business/industry partners
- Determine the value of and define community partnerships

Session Outline:

Welcome— 10 minutes

Skill in Action— 30 minutes

Hands on Learning Activity – 30 minutes

Conclusion— 20 minutes

Materials & Supplies:

Trainer Supplies:

- Nametags
- Pens

- Tape
- A watch or stopwatch for the facilitator to monitor time
- Flipchart pad
- Markers for flipchart
- Post-its
- Scratch paper for participants. Put a few stacks out on the tables.
- Internet, computer, projector for video

Trainer Materials and Preparation:

- Training Resource A - Pre- and Post- email to participants (customized and emailed before and after the training)
- Prepare a chart or computer/projector with the objectives written on it (see “Welcome” section in lesson plan).
- Know your program and at least one partner’s mission statement and/or goal.
- Prepare four charts to post around the room with the “List” headings (see “The Skill in Action” section in lesson plan).
- Prepare a chart or computer/projector with quote (see “Skill in Action” section in lesson plan).
- Prepare a chart with the heading “Characteristics of productive partnerships.”
- Training Resource B – Answers to Debriefing Questions
- Training Resource C – Characteristics of Effective Partnerships
- Training Resource D - References for the Facilitator

Before the Session:

Step One: Read through the lesson plan and all training materials. Familiarize yourself with the content, and practice facilitating the sections. Make any changes necessary to personalize the lesson plan to fit your needs. Create the charts/computer documents needed for the training.

Step Two: Review and customize the email to participants from Training Resource A and send to staff with the logistics of the training.

Step Three: Gather all training supplies and prepare the room for training. Make sure the Internet is working and the computer/projector is set up. Familiarize yourself with the training facility.

Face-to-Face Training

Welcome/Context - 10 minutes

What I Say	What I Do
<p>Welcome to our session today! Thank you for taking time to learn more about building community partners.</p> <p>Today's session is packed full of information that will help us all to see the value of community relationships. Let's take a look at what we will accomplish today:</p> <ol style="list-style-type: none">1) Brainstorm program and partner goals2) Identify STEM-rich local business/industry partners3) Determine the value and define community partnerships <p>Any questions before we get started?</p> <p>Let's have a great session!</p>	<p>Greet and introduce yourself to participants as they enter the room and make sure they are familiar with the room. Have them make a nametag and fill in the front rows first. Hand out a few pieces of scratch paper and pens to participants (or have these out on the tables).</p> <p>Make and post a flipchart (or post on computer/projector) the goals in bold in the lefthand column to serve as a roadmap for the workshop.</p>





See the Skill In Action – 30 minutes

What I Say	What I Do
<p>To begin, we are going to view a video that focuses on the skill of connecting with community partners. I will show the videos twice, stopping in between so we can discuss.</p> <p>Let's begin with the skill video.</p> <ul style="list-style-type: none">• What did you notice about the community partners?• What does Eileen, the staff person from the botanical gardens, say about partners?• What role do the youth play in developing partners? Did you hear anyone talk about the youth? <p>Let's watch it one more time.</p> <p>How could these partnerships affect STEM learning in youth?</p> <p>Let's talk about the activities they are doing in the video:</p> <ul style="list-style-type: none">• What are they doing? How does the activity interact or relate to the partner org?• What would you do differently? What would you do the same?	<p>Link to Video: http://www.click2sciencepd.org/developing-stem-rich-partnerships</p> <p>Allow participants time to process between questions. You might want to pause the video at certain parts the second time.</p> <p>Video link: http://www.click2sciencepd.org/developing-stem-rich-partnerships</p> <p>If the same person is answering the questions, try these strategies:</p> <ul style="list-style-type: none">- “That’s great, Bob, let’s hear from someone else.”- Call on one person - “Kay, let’s hear from you,” and state the question. <p>Display the goal/mission statement of your</p>



One of the ways to create effective partnerships is to share common goals.

Can you communicate the mission statement/goal of our program concisely and clearly? What is it?

When referring to “goal” in this context, we are thinking about one guiding principle that we are trying to do well in our program each day. It is an aim or desired result.

Why is it important to have a program goal?
Why is it important for staff?

Is it important for youth? Why?

Why is this goal important for partners?

By reflecting on our goal we can get our gears turning to think about what community partners fit in with this goal and can also help us achieve it.

What about our partner’s goals? Does anyone know one of our Partner Organization’s goals?

How can knowing the partner’s goal benefit youth in our program? Benefit our partnership?

How is your partners’ goal and your goal the same? How is it different?

program. If you already have a specific vision or macro-goal for your afterschool program, please share that now with the group and spend time exploring and discussing it with the group.

If you do not have a specific program goal/mission statement, you can get their feedback by asking, “What is it that we try to do each day in our program?”

Suggestions for Partner goals: Mission statement of your local school; Program goals of 4-H.

MOTT Foundation Vision: ...A world in which each of us is in partnership with the human race – where each individual’s quality of life is connected to the well-being of the community, both locally and globally.

Hands-on Learning Activity – 30 minutes

What I Say	What I Do
<p>We are going to use the next few minutes to explore ways we can identify local STEM-rich business and industry (B/I) and how we can seek out and invite STEM partners to engage youth in STEM. As you look around the room, you will see chart paper with various headings. We are going to divide into four teams and spend five minutes at each chart. When I say, “Switch,” you will move to the next chart. At each chart, you are going to work with your team to brainstorm each of these areas and write lists. You can write on the post-its at your table and put the post-its on the charts or you can write on the charts. Let’s read the different headings together. Collaborate with your team.</p> <p>Now let’s get back together as a group and look through each of our lists. Could I one volunteer from each team be our readers at each of the charts? Thank you.</p>	<p>Post four charts around the room with these headings:</p> <ol style="list-style-type: none">1) List local business or industry2) List Current Partners3) List B/I youth interested in4) List B/I that would benefit youth <p>Divide into teams. Put one team at chart 1, one team at chart 2, etc. Take about 20 minutes to give everyone time to get to each chart. Watch the time. If it is a large group, half of the group can write on post-its at their tables and the other half write at the charts, then switch.</p> <p>Try to mix-up the teams so they are not with the same people.</p> <p>Have four volunteers, one at each list, read through the charts.</p> <p>Try not to make any personal comments about whether the choices are good or bad, etc. This is an exercise to get groups thinking of partners, how to build partnerships in their community. The main goal is to get ideas flowing and discussion happening.</p>



- How did you decide what local business/industry to include on this list?
- Where did you start looking for these businesses?
- Who are partners that are on our list that we may not think of when thinking of “traditional STEM” partners?
- What would be a few “must have” items that partners would need to fulfill?
- What’s the value of building partnerships with business/industry that are related to STEM?
- Anyone we are forgetting?
- What about the youth? Their families?

Thank you for your thoughts! Who will read this statement out loud for us?

“Partnerships between science-rich institutions and local communities show great promise for fostering inclusive science learning. Developing productive partnerships requires considerable time and energy.”

This conclusion was taken from a research article titled “Learning Science in Informal Environments: People, Places, and Pursuits.” Let’s unpack this conclusion.

Why do partnerships “show great promise?”
How do they foster learning?

The last part of the statement focuses on building partnerships. How do we build productive partnerships?

Allow 2-3 participants to answer each question, even if that means pausing for them to think or rephrasing the question. Set the context early that you are not going to answer the questions yourself!

See Training Resource B with suggested answers to the debriefing questions for your preparation purposes.

Post a chart or show on a computer/projector the quotation in bold at the left. Lead a discussion about the quote.



<p>Let's take a few minutes and come up with examples of the characteristics of a productive partnership.</p> <p>Would someone volunteer to be the recorder and be willing to write so we can chart your suggestions?</p>	<p>Make a chart with the heading, "Characteristics of Productive Partnerships."</p> <p>Please review Training Resource C for suggested characteristics. You want to direct staff to these suggestions, but let them come up with answers on their own.</p> <p>Give them time to answer!</p> <ul style="list-style-type: none">• Beneficial for youth• Benefits the B/I• Helps us serve more youth• More cost effective• STEM expertise from B/I• Youth expertise from afterschool provider• B/I can be role model• Can benefit the bottom line of B/I by getting their name and service into community.
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Closure - 20 minutes

What I Say	What I Do
<p>We've identified ideas for potential partners, the value or benefits to the partnerships and defined characteristics of effective partnerships.</p> <p>We've developed quite a list of potential partners. How did we do that?</p> <p>By having discussions with our other group members we were able to hear different ideas and truly use our best resource—each other.</p>	

Now, let's put action to our ideas.

You or your teams are going to receive the name of a potential partner. Working by yourself or with your team, we will be creating a 3-point action plan, and then collaborate in small groups to make our plans even stronger.

On the scratch paper found on your table, write an action plan that focuses on these three points:

1. How and when will I contact the partner? Are you going to call, email, visit? Who do you talk to? When will you call, morning or night?
2. What will I say? Write out a script so that you know exactly what you are going to say. Have your team/colleagues look those over. Keep them professional, courteous, and how you would want to be treated if they called you.
3. What do I want my partner to do? *Do not ask for money.* Again, script this out. What would you like from them? To come out and teach a class? Be a "Mystery Career Guest?" Train the staff in a STEM project? Let the kids come to their shop and tour?

Spend 5 minutes writing your 3-point action steps from today's session. Use the handout with notes from our discussion as a guide. Remember, action plans need to be verb-

From the list of possible partners, assign each partner to a person/team in the room.

If the group is small, assign each person a potential partner. If you have enough potential partners listed, they can each have 2, but it's best to focus on one per person to start out.

If the group is fairly large, ask them to form teams of 2-3 and assign each team a potential partner.

Each person/team is going to come up with a 3-point action plan.

Give 5 minutes to work.



driven and include a time line.

Now, individuals or teams, get with an elbow partner or another team, and share your action plan. Work with your teams to make changes, revisions, etc.

Okay, time's up. You can take that with you, if you want to add more information.

Do you feel good about your plan?

Let's look over our original plan for the day.
Did we meet those expectations?

I had a great time today and am excited about hearing from you about all your wonderful partner experiences in the weeks to come.

Please be looking for an email from me.

I want to see how it's going and what I can do to help make it successful. Remember what Charles Mott said: "Each of us is in partnership with the human race – where each individual's quality of life is connected to the well-being of the community, both locally and globally."

Thank you for today's session. I appreciate your input, discussion and hard work!

Again, keep time tight at 5 minutes. If you have more time, use it, but don't go over.

Circulate around the room and check in with participants as they are working on their action plans.

Use the original chart/slide of the three points.

KEEP ALL CHARTS! You want to have a record of who is assigned to each partner. It is also a way to get feedback and keep connected to the team.



After the Session:

- Step One:** Send out an email (Training Resource A) thanking staff/volunteers for participating. Contact each participant individually to see how it is going with their partner contact and the action plan the participant created. Encourage them to use you as a resource, contact you with questions, etc.
- Step Two:** In a few weeks, send another email asking participants to share how it is going with connecting with community partners. Ask them to send you a testimony of their experience working with partners. Provide any links, resources, etc., that can encourage them in this skill. Let them know how they can contact you, if they want to go deeper in this area with one-on-one coaching. Let them know when another training/meeting is available and the logistics of that event.

Want to earn credit?

Click2Science has partnered with Better Kid Care to provide online, continuing education credit courses in the 20 skills that make STEM click at:

<http://extension.psu.edu/youth/betterkidcare/school-age-practitioners/click2science>

Training Resource A

Pre-training Email to Participants

Customize this email and send to participants ten to fourteen days before the session date.

Good MORNING/AFTERNOON,

The next professional development opportunity to enhance our STEM skills will be on DATE at TIME at LOCATION. Our focus for this workshop will be connecting with community partners.

To come prepared to engage in the training, I want you to think of at least two different local STEM business/industry that we could seek out to partner with our program.

I am happy to answer any questions you have, and look forward to seeing you at the workshop. I can be reached at CONTACT INFO.

Sincerely,

YOUR NAME

Post-training Email to Participants

Customize this email and send to participants following the workshop session.

Good MORNING/AFTERNOON,

Thank you for participating in our recent professional development session focused on connecting with community partners. I valued our time together and hope you have found the experience applicable.

To complete the session, please review and use the action plan we created at the end of the session and contact your potential partner. Email me and let me know how that went.

I look forward to continuing our learning at the next session on SKILL/FOCUS on DATE at TIME at LOCATION. Please don't hesitate to ask if you have any questions. I can be reached at CONTACT INFO.

Sincerely,

YOUR NAME

Training Resource B

Answers to Debriefing Questions

- How did you decide what local business/industry to include on this list? *We are current partners with them, they focus on science, and youth would get excited learning from them.*
- Where did you start looking for these businesses? *Schools, zoos, museums, non-profit or for profit organizations.*
- Who are partners that are on our list that we may not think of when thinking of “traditional STEM” partners? *Beekeepers, ranchers/farmers, seed geneticists, theme park designers.*
- What would be a few “must have” items that partners would need to fulfill? *The obvious- be involved in STEM, have staff or multiple staff members interested in working with youth, be relatively local (within X amount of miles), have similar goals or vision to your organization.*
- What’s the value of building partnerships with business/industry that are related to STEM? *Draw upon experts of a specific topic, partners may have knowledge that you don’t have, exposes students to careers within STEM, the business/industry may gain insight from youth that could be beneficial to their businesses.*
- Who are we forgetting? *Help participants to really dig deep and think about ALL business/industry partners that could be STEM related. Hospitals are often forgotten.*
- Why do partnerships show great promise? *Helps students develop an identity within STEM by showing how their interested fit into real world application, students are exposed to careers within STEM.*
- How does it foster learning? *Can potentially be hands-on and engaging, brings concepts to life.*

Training Resource C

Characteristics of Productive Partnerships

- Productive partnerships are beneficial for both the youth that they serve and the business/industry involved.
- An effective partnership between organizations allows after-school programs to serve more children, often at a lower cost per child.
- STEM expertise could come from a school, a museum, or other nonprofit and for-profit organizations.
- After- school programs must commit their staff to working with the STEM expert and not depend on that expert to lead activities directly.
- For example, instead of having a science teacher or museum educator work directly with 20 kids, a partnership allows that expert to support 10 youth workers who each work with 10 kids.
- Professionals from business and industry can serve as role models and provide context to students who want to learn more about STEM careers.

Training Resource D

References for the Facilitator

Learning Science in Informal Environments: People, Places and Pursuits, Page 301

http://www.nap.edu/openbook.php?record_id=12190&page=301

Strengthening After-School STEM Staff Development, Page 12

http://afterschoolscience.org/pdf/coalition_publications/Strengthening%20After-School%20STEM%20Staff%20Development.pdf