Action Steps:

» Create a flier summarizing your project goals.

» Identify the key organizations involved with STEM in your community and contact them.

» Prepare for initial meetings with potential partners using an agenda-building template.

Partnerships with entities that complement the skills, expertise, and energy of your project are key to creating rich STEM experiences for youth. It is important to prepare how you will communicate about your project before contacting potential community partners. Most importantly, remember that building partnerships is about relationships and relational connections between entities.

Strategies to Make it Happen:

Define Your Project Goals

Before you reach out to potential partners, you will want to come up with concise wording to communicate your project goals. Keep your audiences and the preexisting relationships in your target community in mind as you define your key talking points. Creating a flier that describes and communicates your intentions can help facilitate your initial meetings with potential partners. Share this flier when you first reach out to potential partners to give them a well-crafted introduction to your project.

Tool: Creating an Introductory Flier
Summarize what you can offer to your STEM learning ecosystem as a concise, one-page flier. Use this flier to introduce your project to a particular audience (i.e., potential partners, collaborators, researchers, policymakers, or families).

Identify Key Players in the Community

How do you identify which community members to reach out to? While you can certainly start by cold calling or emailing local businesses and organizations that work in science, technology, engineering, and math fields (think about who you identified as part of the STEM Ecosystem from Practice Brief 1), in our experience, you will have more success building upon relationships that already exist between STEM program providers and the community.

Enlist others to help identify potential community STEM education partnerships (CSEPs)[1] and plan for a broad initial reach. Find out from STEM educators or the local school district what organizations or individuals already engage in STEM-related community outreach, such as school field trips, guest speaking, internships, or STEM/job fair participation. Ask about sponsors, businesses, and local government organizations that have a presence in the school community. Reach out to organizations and individuals

[1]Community STEM education partnerships (CSEPs) are long-term collaborations between organizations and project participants that coordinate and leverage expertise and resources to improve STEM learning opportunities for youth.

with whom STEM educators have already had positive outreach experiences. Don't be afraid to ask school leadership to make the first introductions between your project team and contacts they have worked with successfully before.

The table below shows examples of entities where you might find people with STEM careers (engineers, scientists, technicians, etc.). Consider reaching out to service-providing organizations like these in your community.

ENTITIES WHERE YOU MIGHT FIND STEM CAREERS	
Education and community-focused organizations	- Libraries - Science Centers - Offices in charge of environmental programs and initiatives - Community College, University, or extension offices
Local, state, regional, and federal agencies	- State Parks - Fire department - Department of Transportation - Local environmental stewardship, sustainability organizations - United States Forest Service - Utility companies - Department of Wildlife - Water and wastewater services
Local Government Organizations	- River districts or agencies that do water measurement for reservoirs and streams - Environmental Health Department for the local county - Members of environmental or sustainability-focused advisory committees - Offices in charge of county environmental policy, county climate action plans, or natural disasters
Businesses	- Businesses that specialize in construction, building, architecture, or design - Graphic design or website design businesses - Businesses that have a presence in outreach or sustainability - Composting, recycling providers - Civil, environmental, and structural engineering firms - IT support or security businesses 3D Printing and architectural modeling firms - Restoration or environmental clean-up businesses - Mining company - Medical research organizations - Solar energy company - Regional airport technicians

While it is certainly easier to approach an organization where you have a contact, do not rule out potential partnerships with new entities that could add valuable experiences for youth. If you are making a cold call, ask to be connected with anyone involved in community outreach at the organization. This is where having your introductory flier will be helpful.

In some situations you might find it useful to also build partnerships with individuals and organizations from outside the community. This can increase the reach and exposure for youth, allowing them to engage with STEM careers and opportunities that are absent from the community (for example, connecting students from an inland community to marine biologists or coastal researchers). If virtual experiences will be part of your program, activating your network from beyond the local community is a great way to expand youth experiences.

> **Tool: Potential Community Partner Template**
> Use this template to track organizations and businesses you identify as having potential alignment with your project. Keep track of who you have contacted and when to follow up.

Reach Out to STEM Related Organizations in Your Community and Invite Them to Meet with You
Contact individuals and organizations from your list of potential community partners. At this stage, the main goal is to gain an audience with them to introduce your project and look for ways that a partnership might be mutually beneficial.

Reach out to leaders at different levels. For example, speak with the central administration of a school district, as well as the building administration, teachers, subject coordinators, and career counselors. Reach out to entities across various sectors – governmental, private businesses, and non-profit organizations. Connect with community members who provide STEM learning opportunities outside of school to learn about their goals and needs.

If you don't get a response right away, don't get discouraged. Professionals are often busy, and their lack of responsiveness should not be assumed to mean a lack of interest. It's okay to 'ping' your contact, especially as project deadlines come into play.

Planning for Your Initial Meetings with Potential Partners:
Be intentional when planning the initial meeting, as it will lay the groundwork for building the partnership. When building new relationships, first take on the role of a learner. Think about information you want to gather and what questions will help you gather that information. Be prepared to provide a concise introduction to your project, paint a picture of what the youth will be doing, and offer suggestions for how this entity could be involved. Create an agenda and notes document to help facilitate your first meeting with a potential partner.

Here are a few topics to consider including in an introductory meeting with potential partners:

» Introduce your project goals and paint a picture of what the youth experience will look like.

» Inquire about the partner's involvement and interest in youth outreach and STEM in the community.

» Discuss the key strengths and opportunities for working together and look for alignments between goals.

» Provide specific information about what roles this entity might assume in a partnership with you (e.g., collaborative project partner, educator, STEM mentor, community STEM partner, etc.).

» Ask about their capacity to assist in your project so that you can determine what responsibilities they might be able to take on.

» Be clear about what you are asking them to prepare and do, and how much time you are asking them to invest. Provide a potential schedule for their participation in the project.

» Ask about ideas and needs that the partner identifies and be willing to update your plans accordingly.

» Explain how you can work with and support this partner.

By the end of the first meeting, you may or may not have a concrete way forward. In some cases, your contact may need to have internal conversations with their leadership to determine whether they can participate. Or it may not be a good time for them to participate based on current situations like staffing and workload. If you feel the partnership is worth pursuing, check in periodically and keep them informed about project work by sharing periodic newsletters (see Practice Brief 6), as interests and capacities can change over time.

Tool: Meeting Agenda Template
Use this meeting agenda template to ensure you focus the conversation on a) learning about this entity and b) uncovering potential ways to build a mutually beneficial partnership.

STEM Career Connections Spotlight:
A Service Project for the Community Garden

One of our community partners during the project was the local community garden. We met with the garden's director to identify our common goals and plan how youth could engage with the gardens. Our project aimed to introduce youth to a community problem that could be solved using programmable sensor technology. The community garden wanted to grow more food to better serve the community by providing access to local, nourishing, and sustainable food resources. We explained how youth could program sensors to help monitor conditions in the garden to satisfy the director's interest in collecting real-time data, including soil moisture, temperature, carbon dioxide (CO_2), and light levels for each garden plot. Access to this data would help them determine where to plant certain vegetables, when to water each garden bed, and where to install wind or shade structures. Youth successfully completed this service project during the summer program, collecting data and participating in garden chores during a field trip to the community garden, and then later analyzing and sharing the data they collected.

The garden director summarized the mutual benefits of this partnership, as well as the coordination required to make it successful:

> *"I think that something like this is the exact thing that needs to stick for the kids who are like, Why would I need to know that? Why would I need to know the moisture of the soil? Why would I need to know about the atmosphere? I think this was really useful in terms of making everything very practical, because it's food, it's gardening, and not just a passion. It is something people need to do…farmers can use this data. So, I feel that bringing the data into a real-world application is absolutely awesome."*

> *"The coordination with the program was huge, like figuring out the logistics of how this would work and then being able to carry that forward for other events. That was very valuable, and I am just excited to get to do it again."*

Reflection Questions

» What are your main goals for this partnership?

» How can you best communicate what your project is about?

» Who are the key people and/or organizations you should contact about joining the partnership?

» How can you best align your partner's goals with your project goals?

Next Steps

Practice Brief 3 - Building Community STEM Education Partnerships