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How Can We Build on Existing Assets Within a Community?

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What Is the Issue?

To broaden participation in STEM, many argue for a need to work *with*, not *for*, communities. Co-developed with community groups and organizations, "community science programs" are events and programs located in the community itself, and not in a university, museum, or other institutional setting. As such, they are designed by community members to advance community priorities, and are therefore more likely to be taken up and sustained over time. These efforts recognize that communities themselves—not just the nearby universities or research labs—are rich with people, resources, and practices that make up science in everyday life.

Things to Consider

Science educators and communicators must value and appreciate science that already takes place in the community, which may look different than traditional (school-like) representations of science, which have historically excluded many communities.

Research shows that young people's desire to learn and do science that matters in their lives and in their communities cannot be separated from who they are, what they care about, and what positive difference they hope to make in their worlds. By building on existing resources and practices within the community, science communication/education events or activities can be designed to position science as a tool for these transformational goals.

Why It Matters to You

- **Science communicators** and **STEM educators** can enrich their contributions to the community by working with community members to design events/programs that advance community priorities.
- **Professional development leaders** and **science communication trainers** can help participants develop strategies for connecting with local community organizations and networks.
- **Funders** can reward programs that incorporate community resources and knowledge into STEM offerings that position STEM as crucial to social progress.
- **Evaluators** can take community priorities into account as they design measurement strategies.

Things to Consider (continued)

The full and rich lives of community members should be integral to all aspects of program planning, including program design, recruitment, and evaluation. Community stakeholders, including science communicators/educators, can collectively define what counts as science in their communities, who does science, and why. This process can help draw connections between existing community activities and science practices, surface community members with different forms of science expertise, and create new networks that link community members to science-related spaces and resources. Participants in the process can come to recognize that expertise flows in many directions, residing in community spaces as well as in more traditional science-related spaces, and that each can aid the other.

Reflection Questions

- **Does your program or organization currently work "with" (not only "for") your community? What does this mean to you? What does this look like?**
- **What are major community concerns right now and how might science address those concerns or advance community priorities?**
- **Which community members, networks, or organizations would be important to include in developing a plan for community science?**

Recommended Actions You Can Take

- Conduct "community asset mapping" to learn more about the people, resources, and contexts that matter to people in the community. Invite people of all ages and with varied expertise (for example, the Vietnamese grandmother who gardens) to the mapping conversations and activities. Attend multiple local community organizations' events to get to better know the purpose, people, activities, and possibilities for starting conversations about how STEM is or could be of value in moving towards community priorities.
- Design community engagement in ways that allow multiple perspectives and voices to be heard.
- Consider multiple goals and outcomes of science in community: community workshops, formation of new social networks, transformation of gatekeepers into allies.

Tools You Can Use

- Research briefs from the Relating Research to Practice Project describe studies examining community-based and everyday science including: Kitchen Science (brief #296), Everyday Discourses (brief #110), and Working with Indigenous Communities (brief #357).
- Digital Youth Network's Chicago City of Learning Platform provides one example for documenting, visualizing, and operationalizing a community's ecosystem. Google Maps can also be an effective tool for creating and sharing maps.
- This peer-reviewed article describes "science that matters" to youth in community settings. Themes include engaging in science with a commitment to community; bridging science and place in ways that promote transformation; and challenging barriers to participation in science, including those related to race, class, gender, and age (doi.org/10.1002/sce.21293).

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