

## Community Science Attributes

*Attributes* are the community-centered, collaborative practices and qualities that make Community Science meaningful and impactful.



Centers Community Priorities



Respects Community Strengths



Shares Leadership



Aims for Action



Equity-Focused

## About this tool

This rubric was developed by the Association of Science and Technology Centers (ASTC) and partners to **help teams plan, implement, assess, and improve projects** aligned with the [Community Science Framework](#) Attributes.

This rubric is designed to guide your team in reflecting about your work and identifying opportunities for growth and improvement *over time*. It may be helpful to revisit it over the course of your project, including:

- **During planning and proposal development**, to help clearly make your case for Community Science and build a foundation for collaborative work
- **When you are starting to collaborate with a new partner**, to prompt discussion and ensure all parties agree on the project's course of action
- **When you hit a roadblock**, to examine which Attribute(s) may need more attention to get your project back on track
- **After completing a Community Science project**, to evaluate and inform approaches for your next project

## Who is this tool for?

Throughout the rubric, we use the phrase “science museums,” but this tool is appropriate for a wide range of institutions engaged in community science.



Science-focused informal learning institutions, such as science centers, natural history museums, zoos, aquaria, arboretums, botanical gardens, nature centers, and planetariums.



Other museums and cultural centers, such as history museums, historic houses and sites, specialized museums, children's museums, and public libraries.



Science organizations and scientific societies.

## How to use this tool

*Use the rubric to assess where your project is now.*

This tool includes four sections—one for each Attribute, except “Equity-Focused” which is incorporated as a dimension across the other four.

For each Attribute, the rubric presents a continuum of growth, with descriptions at four waypoints:

○ BEGINNING    ○ MAKING PROGRESS    ○ SUCCEEDING    ○ EXCELLING

As you go through the rubric as a team, consider:

- How does your project or project plan currently reflect each Attribute?
- Are there opportunities to strengthen your project or project plan with regard to each of the Attributes?

The reflection worksheet at the end of this document can help you reflect on and identify specific aspects of your project that align—or could better align—with Community Science Attributes.

*Note: While the rubric descriptions are written mostly in present tense, they can be applied to expected future work (during planning) or completed work (during evaluation).*



## Definitions

**Community Science** – A way of working where community members collaborate with each other, scientists, science engagement practitioners, and others to advance community priorities through scientific research, technological innovation, and more. To learn more about Community Science, visit ASTC’s [Introduction to Community Science](#).

**Community** – Any connected or organized groups of people who share a common geography, jurisdiction, set of characteristics, interests, or goals—not just a particular racial or ethnic group or zip code.

**Science** – Organized, evidence-based ways of learning about and understanding the world. In the context of Community Science, this can include both physical and social sciences; western modern approaches as well as Indigenous and traditional ecological knowledge; and applied fields such as technology, engineering, and medicine.

**Community Partner** – A public or private organization, entity, or group that represents the community, provides community services, and centers community needs, priorities, and/or goals. Community partners can include (but are not limited to) Tribal organizations, nonprofits, public libraries, regional planning commissions, neighborhood civic associations, faith-based organizations, youth-focused organizations, and environmental advocacy organizations. *Note: When the rubric asks you to consider the impact on the “community,” we mean the community at large, not the partner organization.*

**Outcomes** – The change or impact that happens as a result of effort. In Community Science, outcomes are often intangible and people-centered. They are not the same as project activities and deliverables.



# Centers Community Priorities

→ *Project topic and design*



## ○ BEGINNING

### *Focus on Science Museum*

The project concept (or topic idea) is developed and driven by the goals or interests of museum/scientists and/or lacks evidence of community involvement. A need may be identified, but that need is not rooted in prior research, evaluation results, or community conversations, feedback or expertise.

**AND/OR:** The project's focus primarily benefits the museum partner (or scientific partners) and focuses on 'educating' the community or raising the museum's public profile.

## ○ MAKING PROGRESS

### *Leans toward Science Museum*

The community is involved in the project ideation and development process, but their contribution is limited. For example, they may be invited to give input, but do not contribute to development of the question or topic. The selected project may still benefit the museum partner (or scientific partners) more than the community. It may be a short-term collaboration.

## ○ SUCCEEDING

### *Balances Perspectives*

The project concept (or topic idea) is the result of a collaboration between partners and there is **clear evidence of how this concept was derived** (which can include a partner's prior relationship or deep experience in the community). It is articulated in a way that has clear benefit/meaning to both the community and museum (and science). The project is clearly **centered on a science-based community** need that has a path (perhaps not achievable in one project) to make long-lasting difference in the community.

## ○ EXCELLING

### *Leans / Focuses on Community*

The project includes all the criteria for "Succeeding."

**PLUS:** The community is central to project ideation. For example, the entire project concept is community-driven or initiated by the community, rather than the museum partner (e.g., community sought out the museum partner).



## Equity Focus

- The project concept, topic idea, or research question addresses an inequity, harm, or injustice in society.
- The project uses science to benefit society – science for the people.



# Respects Community Strengths

↳ *The community's role in the project*

## ○ BEGINNING

### *Marginalizes community strength*

Partners make assumptions about the community's motivations, behaviors, or needs as part of science inquiry and engagement. For example, the community is viewed as the site of the 'problem,' while the museum or scientists are viewed as presenting the 'solution.'

The project limits community contribution and expertise to labor, data collection, or acting as a conduit to the broader public. The project distinguishes science museums or scientists as the 'experts,' by giving them authority over the core (valued) work of the scientific process.

## ○ MAKING PROGRESS

### *Acknowledges community strength*

The project recognizes partners' strengths and roles, but community contributions to the work are limited (e.g., data collection, education events, listening sessions).

The approach still relies largely on the scientists/museum 'experts' who are entrusted with the seemingly more valuable parts of the project (e.g., research design, analysis, reporting). Responsibilities are based on assumptions of community capacity/capability, rather than through transparent agreement and consent.

## ○ SUCCEEDING

### *Integrates community strength*

The project process demonstrates mutual trust in partner and community capabilities, with each being transparent about their strengths, weaknesses, and capacity. The resulting project allows space for **meaningful contributions of the community in all parts of the project's process.**

It recognizes the community's agency to contribute to the solution and supports them in articulating how they want to participate in the work. If the result is that scientists and/or museum professionals do the 'heavy lifting' of the scientific process, it was consented to or requested by the community.

## ○ EXCELLING

### *Privileges community strength*

Community participation is critical to the project's success. The project was designed to explicitly leverage community strengths to address the topic at hand, and the process is designed to create or expand community strength and/or respect. The project incorporates explicit ways to remove barriers to full community engagement and participation in the scientific process.



## Equity Focus

- The project acknowledges the multi-dimensionality of what makes a community and recognizes other ways of knowing or doing.
- The project intentionally draws on the strengths of marginalized / historically underrepresented community members.



# Shares Leadership

How the partnership functions

## ○ BEGINNING

### *Ill-defined / One-sided*

Partners express a general commitment to shared leadership but have not specifically articulated each partner's project roles and responsibilities.

**AND/OR:** The project is one-sided; one partner is burdened with the majority of responsibilities, granted unequal decision-making power and authority, and/or given uneven access to critical resources.

## ○ MAKING PROGRESS

### *Informal / Unbalanced*

Partners express a commitment to shared leadership and have established some processes for communication and basic workflow (e.g., meeting regularly, writing and reviewing documents); but their responsibilities and/or systems for accountability and operations are fluid and often developed on-the-fly. Decision-making is ad hoc and done as issues arise.

**AND/OR:** Plans and processes rely on one partner being the driving force and/or direction-setter (a possible result of lack of clarity). Ownership of tasks often default to whoever has capacity.

## ○ SUCCEEDING

### *Proactive / Balanced*

Commitment to shared leadership is evidenced by documenting and following partnership norms, responsibilities, and processes for communicating, decision-making, conflict management, and public representation. An established and ongoing collaboration process (with multiple modes, touchpoints) is used consistently. **Partners reasonably share responsibilities and accountability** and feel empowered to make decisions and take actions to move the project forward.

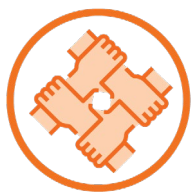
**AND/OR:** The project explicitly acknowledges an imbalance of authority and describes a rationale for that imbalance that is agreed upon by both partners.

## ○ EXCELLING

### *Sustained partnership*

The project includes all the criteria for "Succeeding."

**PLUS:** The partners have plans to extend the collaboration beyond the initial project. Partners have identified or continue to identify future community needs and are proactively developing processes to undertake future work. Future plans consider each partner's capacity to engage, as well as their roles and responsibilities (e.g., fundraising, awareness-building, grant writing, etc.), based on lessons learned from current and past work together.



## Equity Focus

- Project partners are intentionally chosen based on who can best represent the issue and "activate" the solution(s) in their communities.
- The project recognizes partner limitations and involves additional leaders/stakeholders in the process to address systemic inequities.



# Aims for Action

↳ *Project outcomes*

## ○ BEGINNING

### *No outcomes identified*

Project is focused on activities and deliverables—what will be created or produced—rather than the change resulting from those efforts. The project does not articulate and/or achieve broader community outcomes.

**AND/OR:** Outcomes are not **people-centered outcomes** or related to community priorities.

## ○ MAKING PROGRESS

### *Weak or limited outcomes identified*

The project articulates and/or achieves outcomes, but those outcomes primarily focus on awareness-building, educating people, or achieving museum-oriented goals (e.g., the museum learns about the community or strengthens connections with the community).

**AND/OR:** Outcomes are short-term in nature and lack community-level or long-term stakeholder impacts.

**AND/OR:** Outcomes are not clearly and feasibly aligned with actual project priorities, activities, and deliverables.

## ○ SUCCEEDING

### *Community-centered outcomes identified*

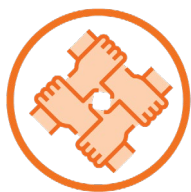
The project articulates and/or achieves people-centered outcomes representing meaningful, local change for the community. These outcomes are reasonably aligned with project activities and deliverables and are (or will be) measured in some fashion.

## ○ EXCELLING

### *Beyond intended outcomes*

The project includes all the criteria for “Succeeding.”

**PLUS:** It includes activities or outcomes that engage or impact broader community members who are not part of the central partnership (e.g., community members who hold a contrasting point-of-view; legislative or business stakeholders; etc.). The project articulates who (within and beyond the partnership) are accountable for specific follow-through actions/next steps. Planned actions are grounded in an intentional theory of change.



## Equity Focus

- The project outcomes advances equity or social justice in the community / society – beyond the project partnership.
- The project articulates opportunities for broad participation (beyond partners) in achieving / enacting outcomes.

# Centers Community Priorities



**1. Current Stage:** Mark the stage that best describes your project now.

- ☐ Beginning
- ☐ Making Progress
- ☐ Succeeding
- ☐ Excelling

**2. Evidence:** Describe *specific elements* of your project that align with the stage you indicated.



**3. Reflection Questions**



Does the project reflect the Equity-Focused dimensions? How so?

Can you get input from a broader range of community members?

Are there existing gathering places or events in your community that could be leveraged to help you hear more community voices?

How could community members be more actively engaged in every stage of your project?



# Respects Community Strengths



**1. Current Stage:** Mark the stage that best describes your project now.

- ☐ Beginning
- ☐ Making Progress
- ☐ Succeeding
- ☐ Excelling

**2. Evidence:** Describe *specific elements* of your project that align with the stage you indicated.



**3. Reflection Questions**



Does the project reflect the Equity-Focused dimensions? How so?

How can you learn more about community members' knowledge and skills?

Can your project incorporate other ways of knowing present in the community, such as lived experience and cultural knowledge?

Can you remove barriers to participation for marginalized/historically underrepresented members of your community?



# Shares Leadership



**1. Current Stage:** Mark the stage that best describes your project now.

- ☐ Beginning
- ☐ Making Progress
- ☐ Succeeding
- ☐ Excelling

**2. Evidence:** Describe *specific elements* of your project that align with the stage you indicated.



**3. Reflection Questions**



Does the project reflect the Equity-Focused dimensions? How so?

Can you create a specific and concrete written operating agreement for how leadership will be shared in the course of your project?

Can you make sustainable plans for how you and your community partner will continue to work together after the project's completion?

# Aims for Action



**1. Current Stage:** Mark the stage that best describes your project now.

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