Collaborating with youth-serving organizations on STEM activities locally

The Museum & Community Partnerships project is designed to help NISE Network partners reach underserved audiences in your community that you aren’t currently reaching with nanoscale science, engineering, and technology ("nano") through new or expanded museum and community-based partnerships. To be eligible, existing NISE Network partners must collaborate with a community partner, such as a local community group, afterschool program, library, or a local chapter of a national youth-serving group.

Collaborating with an existing youth-serving organization on STEM activities is an effective way for museums and university outreach programs to connect with audiences they may not regularly reach, particularly underserved audiences.

The following profiles of national youth-serving organizations have been compiled to assist museums and university outreach programs in developing partnerships with a community organization or a local chapter of a national youth-serving organization. These profiles are intended to provide a brief introduction to each organization.

1. 4-H
2. Afterschool Alliance
3. Boys & Girls Clubs of America
4. Boy Scouts of America
5. Girls Inc.
6. Girl Scouts
7. Libraries
8. National Girls Collaborative Project
9. Parent Teacher Association (PTA)
10. Y (YMCA)
11. YWCA
4-H

ABOUT
4-H is a global network of youth organizations whose mission is engaging youth to reach their fullest potential while advancing the field of youth development. 4-H is the youth development program of our nation's Cooperative Extension System & USDA. The 4-H name represents four personal development areas (head, heart, hands, and health) that members work on through fun and engaging programs.

AUDIENCE AND GEOGRAPHIC REACH
4-H is the nation's largest youth development organization, empowering six million young people throughout all 3,007 counties of the United States. Through America’s 110 land-grant universities and its Cooperative Extension System, 4-H reaches every corner of our nation—from urban neighborhoods to suburban schoolyards to rural farming communities. 4-H has a network of more than 611,800 volunteers, 3,500 professionals, and more than 25 million alumni. In most states, kids can join 4-H if they’re between the ages of 8 and 18; some states offer programs for younger children.

WEBSITE
• http://www.4-h.org

FINDING A LOCAL PARTNER
There are 4-H programs in every county in the United States:
• http://www.4-h.org/get-involved/find-4-h-clubs-camps-programs/

STEM FOCUS AND RESOURCES
4-H has a long history of “learn by doing” and focuses on many topics including: robotics, alternative energy, engineering, environmental science, ag-science, and veterinary science.
• Science programs: http://www.4-h.org/youth-development-programs/4-h-science-programs/
• Curriculum: http://www.4-hmall.org/Category/educationresources.aspx
• Science training resources: http://www.4-h.org/resource-library/professional-development-learning/science-training-guides-resources/
• Science checklist: http://www.4-h.org/Professional-Development/Content/Science/Buil understanding/4-H-Science-Checklist.dwn
• Online STEM professional development: http://www.click2sciencepd.org/

TIPS FOR COLLABORATION
➢ Ongoing: Collaborate with a local 4-H professional at the county or regional level to plan activities within the regular club structure, location, and activities; this can provide opportunities for repeat visits with the same children
➢ Special event: Collaborate with a local 4-H club for a special event at the museum or another location
ABOUT
Afterschool Alliance’s mission is to engage public will to increase public and private investment in quality afterschool program initiatives at the national, state, and local levels. The Afterschool Alliance works with a broad range of organizations and supporters, including policymakers and policymaker associations, advocacy groups, afterschool coalitions and providers at every level, business and philanthropic leaders, technical assistance organizations, and leaders representing a variety of interests, each with a stake in afterschool.

AUDIENCE AND GEOGRAPHIC REACH
10.2 million children are in afterschool programs nationwide.

WEBSITE
• http://www.afterschoolalliance.org

FINDING A LOCAL PARTNER
The Afterschool Alliance provides a clearinghouse of information on afterschool programs across the country including links to state, regional, and local networks of afterschool providers. You can find links to afterschool networks in your state as well as regional and local networks of afterschool providers in your state:
• http://www.afterschoolalliance.org/policyStateMap.cfm

STEM FOCUS AND RESOURCES
Afterschool programs play a major role in providing meaningful STEM learning experiences to diverse groups of youth; they excite and sustain interest, build real skills, help youth connect STEM to their lives and communities, and introduce youth to a diverse array of professionals.
• Planning guides, curricula, and research: http://www.afterschoolalliance.org/STEM.cfm

TIPS FOR COLLABORATION
➢ **Familiarize yourself**: Afterschool programs are offered by many different organizations with a wide variety of structures, systems, and staffing; get to know some in your local area
➢ **Volunteer**: Afterschool programs often have different volunteer opportunities including one-time special guest presenters and ongoing roles such as mentors and tutors
➢ **Ongoing programs**: Partner with a local afterschool program provider to offer STEM activities in their regular ongoing programs such as one day a week for six weeks, or every day for one week
➢ **Special events**: Partner with a local afterschool program provider during special events or school holidays
Boys & Girls Clubs of America

ABOUT
The mission of the Boys & Girls Clubs of America (BGCA) is: to enable all young people, especially those who need us most, to reach their full potential as productive, caring, responsible citizens. Clubs provide: a safe place to learn and grow; ongoing relationships with caring, adult professionals; life-enhancing programs and character development experiences; and hope and opportunity.

AUDIENCE AND GEOGRAPHIC REACH
Boys & Girls Clubs annually serve nearly 4 million young people, through membership and community outreach, in over 4,100 Club facilities throughout the country and BGCA-affiliated Youth Centers on U.S. military installations worldwide.

WEBSITE
• http://www.bgca.org

FINDING A LOCAL PARTNER
• Find a Club: http://www.bgca.org/whoweare/Pages/FindaClub.aspx

STEM FOCUS AND RESOURCES
• Education and careers:
  http://www.bgca.org/whatwedo/EducationCareer/Pages/EducationCareer.aspx
• White paper on advancing underrepresented youth in STEM during out-of-school time:
  http://www.bgca.org/newsevents/PressReleases/Pages/STEM_White_Paper.aspx

TIPS FOR COLLABORATION
➢ Volunteer: STEM experts can inspire, excite, and prepare young people for careers in STEM; opportunities include guest presentations, mentoring, leading a STEM-related learning activity, or providing training and materials for staff
➢ Visits to STEM organizations: Facilitate visits to spaces where STEM skills are being used in real-world situations such as exploratory visits to local research and design facilities, computer animation studios, science museums, and industrial complexes
➢ Internships and job shadowing: Create opportunities for Club youth to have building-block experiences in STEM careers; this might include paid or unpaid internships or job shadowing experiences where youth are given an opportunity to engage in experiences that allow them to gain knowledge, skills, abilities and credentials
➢ Role models: Expose Boys & Girls Club youth to multicultural STEM professional organizations and societies
➢ Partnerships: Establish targeted partnerships with STEM faculty and students at neighboring institutions of higher education; these partnerships can be game-changing for many Clubs, creating a long-term relationship that can demystify and strengthen interest in STEM fields
Boy Scouts of America

ABOUT
The Boy Scouts of America (BSA) is one of the nation’s largest and most prominent values-based youth development organizations. The BSA provides a program that builds character, trains youth in the responsibilities of participating citizenship, and develops personal fitness.

AUDIENCE AND GEOGRAPHIC REACH
In 2013, service projects were conducted by more than 2.6 million youth members and more than 1 million volunteers. Over 100,000 Scouting units are operated locally by faith-based organizations, civic organizations, schools, PTAs, and other community groups. Units are organized into geographic regional Councils.

Programs are available for Cub Scouts (boys 5–11 years), Boy Scouts (boys 11–18 years), and Venturers (co-ed 14–21 years). Cub Scouts are organized by Dens into Packs progressing by age: Tiger Scouts (1st grade), Wolf Scouts (2nd grade), Bear Scouts (3rd grade), and Webelos (4th and 5th grade). Boy Scouts begin at age 11 (6th grade) and are organized into Patrols that are part of a Troop. Boy Scouts can earn merit badges in a variety of topics including many STEM topics.

WEBSITE
• http://www.scouting.org

FINDING A LOCAL PARTNER
• Find a local BSA unit: https://beascout.scouting.org/Why_Scouting/CubScout.aspx
• Find a regional council: http://www.scouting.org/scoutsource/councils/all.aspx
• Become a volunteer: https://beascout.scouting.org/Volunteer.aspx

STEM FOCUS AND RESOURCES
• What is STEM and NOVA: http://www.scouting.org/stem/aboutstem.aspx
• NOVA Award program: http://www.scouting.org/stem/awards/aboutnova.aspx
• STEM Scouts co-ed pilot program: https://stemscouts.org

TIPS FOR COLLABORATION
➢ Join: Become an official member of the organization to familiarize yourself with the structure and local units in your area
➢ Volunteer: BSA welcomes volunteers to achieve its mission
➢ Badges: Learn how you can help Scouts earn badges through ongoing partnerships and programming
➢ Camp-ins and special events: Many museums offer special programming to help local groups fulfill their badge requirements
Girls Inc.

**About**
Girls Inc. inspires all girls to be strong, smart, and bold, providing more than 140,000 girls across the U.S. and Canada with life-changing experiences and real solutions to the unique issues girls face. The Girls Inc. Experience consists of *people*, an *environment*, and *programming* that, together, empower girls to succeed. Trained staff and volunteers build lasting, mentoring relationships in girls-only spaces that are physically and emotionally safe and where girls find a sisterhood of support with shared drive, mutual respect, and high expectations. Hands-on, research-based programs provide girls with the skills and knowledge to set goals, overcome obstacles, and improve academic performance. Informed by girls and their families, Girls Inc. also works with policymakers to advocate for legislation and initiatives that increase opportunities for girls. At Girls Inc., girls grow up healthy, educated, and independent.

**Audience and Geographic Reach**
The network of local Girls Inc. nonprofit organizations serve 140,000 girls ages 6–18 annually. Local affiliates are located in over 30 states.

**Website**
- http://www.girlsinc.org

**Finding a Local Partner**

**STEM Focus and Resources**
- Girls Inc. Operation SMART (Science, Math, and Relevant Technology) program:
- Tips for Encouraging Girls in STEM:
  - http://www.girlsinc.org/resources/tips-encouraging-girls-stem.html

**Tips for Collaboration**
- **Volunteer**: STEM experts can inspire, excite, and prepare young people for careers in STEM; opportunities include guest presentations, mentoring, leading a STEM-related learning activity, or providing training and materials for staff
- **Existing programs**: Offer one-time or ongoing programming that fits within local Girls Inc. Operation SMART (Science, Math, and Relevant Technology) programs
Girl Scouts

ABOUT
Girl Scouting builds girls of courage, confidence, and character, who make the world a better place. Founded in 1912, Girls Scouts is a leading development organization for girls from coast to coast and across the globe.

AUDIENCE AND GEOGRAPHIC REACH
There are 3.2 million Girl Scouts, including 2.3 million girl members and 890,000 adult members working primarily as volunteers through over 100 local Girl Scout Councils. Units are organized into Troops and regional Councils. Girls progress through Daisies (grades K–1), Brownies (grades 2–3), Juniors (grades 4–5), Cadettes (grades 6–8), Seniors (grades 9–10), Ambassadors (grades 10–12), and then to Adults.

WEBSITE
• https://www.girlscouts.org

FINDING A LOCAL PARTNER
• Find a council: https://www.girlscouts.org/en/about-girl-scouts/join/council-finder.html
• Find a troop or volunteer: https://www.girlscouts.org/en/our-program/ways-to-participate/troops.html

STEM FOCUS AND RESOURCES
• Badge programs have been recently refreshed to better reflect girls' interests and to focus on twenty-first-century skills; several badge categories make special use of STEM activities including naturalist, innovation, and science and technology badges: http://forgirls.girlscouts.org/home/badgeexplorer/

TIPS FOR COLLABORATION
△ Join: Become an official member of the organization to familiarize yourself with the structure and local units in your area
△ Badges: Learn how you can help Girls Scouts earn badges through partnerships and programming with a local troop and regional council
△ Camp-ins and special events: Many museums offer special programming to help local groups fulfill their badge requirements
Libraries

ABOUT
Public libraries serve communities of all sizes and types. At the core of public library service is the belief in free access to information—that no one should be denied information because he or she cannot afford the cost of a book, a periodical, a website or access to information in any of its various formats. Libraries serve people of every age, income level, ethnicity or physical ability, and provide the full range of information resources needed to live, learn, govern, and work. Because libraries bring free access to all, they also bring opportunity to all.

AUDIENCE AND GEOGRAPHIC REACH
There are nearly 9,000 public libraries in the United States, which serve 300 million people, or over 95% percent of the U.S. population. Annually, there are 1.5 billion in-person visits to public libraries, the equivalent of more than 4.2 million visits each day (not including virtual visits).

WEBSITE
• American Library Association: http://www.ilovelibraries.org

FINDING A LOCAL PARTNER
Public libraries are organized differently throughout the States, often forming regional networks:
• Find a library near you: http://www.ilovelibraries.org/what-libraries-do
• Public libraries by state and city: http://www.lib-web.org/united-states/public-libraries/

STEM FOCUS AND RESOURCES
Libraries are places of exploration and a natural place to support STEM learning. Libraries engage millions of people every day in the United States; they provide opportunities for lifelong learning, they are the center of civic life, and they help citizens build 21st century skills.
• Public Libraries and STEM conference resources: http://www.lpi.usra.edu/education/stemlibraryconference/events/

TIPS FOR COLLABORATION
➢ Connect: Meet the local children and youth services library staff and learn about existing programming offered at local public libraries
➢ Special event: Host a read-aloud story time at the library with a related STEM activity
➢ Ongoing programs: Host a weekly or monthly hands-on STEM activity at the library connected to programming themes or seasonal events
➢ Integrate into existing programming: Volunteer to offer appropriate STEM activities within established youth programming, such as book clubs or tech events for teens
National Girls Collaborative Project

ABOUT
The vision of the National Girls Collaborative Project (NGCP) is to bring together organizations throughout the United States that are committed to informing and encouraging girls to pursue careers in science, technology, engineering, and mathematics (STEM).

AUDIENCE AND GEOGRAPHIC REACH
Currently, 31 Collaboratives, serving 39 states, facilitate collaboration between 12,800 organizations who serve 8.35 million girls and 4.5 million boys.

WEBSITE
• http://www.ngcproject.org

FINDING A LOCAL PARTNER
NGCP operates on a local basis. Each Collaborative has a defined region, and acts as a hub for local programs to coordinate resources and reach girl-serving STEM programs in the community.
  • Regional and local collaboratives: http://www.ngcproject.org/find
  • The Connectory: http://www.theconnectory.org

STEM FOCUS AND RESOURCES
NGCP aims to maximize access to shared resources within projects, strengthen capacity of existing and evolving projects, and to use the leverage of the network to create the tipping point for gender equity in STEM.
  • Exemplary practices for engaging girls in STEM: http://www.ngcproject.org/engaging-girls-stem
  • Statistics on girls and women in STEM: http://www.ngcproject.org/statistics

TIPS FOR COLLABORATION
➢ Learn: Learn about girl-serving STEM activities in your community and stay current on their activities
➢ Volunteer: Many of the NGCP-affiliated programs rely on volunteers to achieve their mission, and many welcome volunteers in a variety of capacities and roles
➢ Partner: A core basis of the NGCP is the value of collaboration and shared resources; many NGCP affiliates would be interested in collaborating with your organization
➢ NGCP Collaboration Guide with detailed examples: http://www.ngcproject.org/sites/default/files/ngcp-collaborationguide_0.pdf
Parent Teacher Association (PTA)

ABOUT
A Parent Teacher Association (PTA) or Parent Teacher Student Association (PTSA) is a formal organization composed of school stakeholders. Groups that use the PTA acronym are part of the National Parent Teacher Association (National PTA). Parent Teacher Organizations (PTOs) are similar groups that are not affiliated with National PTA. The purpose of National PTA is to make every child’s potential a reality by engaging and empowering families and communities to advocate for all children. Founded over 100 years ago, the National PTA is a powerful voice for all children, a relevant resource for families and communities, and a strong advocate for public education.

AUDIENCE AND GEOGRAPHIC REACH
National PTA comprises millions of families, students, teachers, administrators, and business and community leaders devoted to the educational success of children and the promotion of parent involvement in schools. There are more than 20,000 PTA units nationwide.

WEBSITE
- http://www.pta.org

FINDING A LOCAL PARTNER
PTA at the local level is linked to the state PTA and the national PTA organization, forming a nationwide network.
- Contact your state PTA to find a unit near you:
  - http://www.pta.org/about/content.cfm?ItemNumber=2711

STEM FOCUS AND RESOURCES
- What your PTA can do to promote STEM (California PTA):

TIPS FOR COLLABORATION
- Stay connected: Local PTA officers are volunteers and typically rotate each school year, so it is good to anticipate these changes and get to know multiple parents and staff people at a school to sustain programs through the regular annual turnover
- Special event: Work together to host a family science night at the school with hands-on activities; PTA members can organize event logistics and provide activity volunteers while the museum provides the activities
- Existing special events: Participate in special events that a PTA may already be organizing such as science fairs, math nights, family events, and career days
- Ongoing programs: Many PTAs offer regular programming and afterschool programs providing opportunities for repeat visits with the same children.
Y (YMCA)

ABOUT
The Y was founded over 160 years ago as the Young Men's Christian Association (YMCA). The goal of the Y is to strengthen communities through youth development, healthy living and social responsibility.

AUDIENCE AND GEOGRAPHIC REACH
The Y engages 9 million youth and 13 million adults each year in the U.S. There are 2,700 YMCAs with approximately 19,000 full-time staff and 600,000 volunteers in 10,000 communities across the country.

WEBSITE
• http://www.ymca.net

FINDING A LOCAL PARTNER
• Find a Y near you: http://www.ymca.net/find-your-y/
• Volunteer: http://www.ymca.net/volunteer

STEM FOCUS AND RESOURCES
Y’s across the country have adopted STEM programming within their youth development, healthy living, and social responsibility programs.

TIPS FOR COLLABORATION
➢ Volunteer: STEM experts can inspire, excite, and prepare young people for careers in STEM; opportunities include guest presentations, mentoring, leading a STEM-related learning activity, or providing training and materials for staff
➢ Integrate into existing programming: Many local Y’s offer ongoing regular afterschool and summer camp programs, providing opportunities for repeat visits with the same children
YWCA

ABOUT
The YWCA is the voice for every woman. For more than 150 years, the YWCA has spoken out and taken action on behalf of women and girls. The YWCA is dedicated to eliminating racism, empowering women, and promoting peace, justice, freedom, and dignity for all.

The YWCA is an independent, non-religious organization originally founded as the “Young Women’s Christian Association.” Today, the YWCA embraces members from all faiths who are committed to creating opportunities for women’s growth, leadership, and power in order to attain a common vision. The YWCA is not affiliated with the YMCA.

AUDIENCE AND GEOGRAPHIC REACH
Over 2 million people participate each year in YWCA programs at more than 1,300 locations across the U.S. The YWCA is a national organization with more than 230 local associations across the United States.

WEBSITE
• http://www.ywca.org

FINDING A LOCAL PARTNER
• Locate a associations:
  http://www.ywca.org/site/c.cuIRJ7NTKrLaG/b.7527667/k.C931/Local_Associations/apps/kb/cs/contactsearch.asp

STEM FOCUS AND RESOURCES
• YWCA TechGYRLS Programs STEM programs:
  http://www.ywca.org/site/c.cuIRJ7NTKrLaG/b.8967867/k.9908/STEM_Programs.htm

TIPS FOR COLLABORATION
  ➢ Volunteer: STEM experts inspire, excite, and prepare young people for careers in STEM; opportunities include guest presentations, mentoring, leading a STEM-related learning activity, or providing training and materials for staff
  ➢ Integrate into existing programming: Many local YWCAs offer ongoing regular afterschool programming for young children and teenagers, providing opportunities for repeat visits with the same youth