## ACCESS TO STEM: A FRAMEWORK

**Strategies** are the broad categories within each large concept: *Increasing Access, Youth-Centric, and Skill Development.* **Tactics** are the specific actions and tools for each strategy.

### INCREASING ACCESS
Strategies that address barriers to participation and build on the experiences within the community.

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Tactics</th>
</tr>
</thead>
</table>
| Community Engagement | • Create plans for internal and external communication and outreach  
• Build cross-sector partnerships to cultivate a STEM learning ecosystem  
• Offer community and family engagement opportunities |
| Data Informed Decision Making | • Identify ways to collect youth and program level data to improve program quality  
• Collect feedback from youth and families  
• Conduct evaluation to assess broader community needs |
| Program Design (quality and intentionality) | • Involve stakeholders who represent the community and offer diverse perspectives in program design  
• Form an advisory board with key stakeholders to provide ongoing guidance and feedback  
• Be intentional in program design to engage and effectively serve all youth |
| Program Operations | • Ensure all youth have access to programming (location, schedule, transportation, technology)  
• Ensure all youth feel welcome (broad outreach to diverse populations, marketing designed to engage all youth, welcoming environment)  
• Recruit and retain staff who are representative of the community |

### YOUTH-CENTRIC
Strategies that build on the specific strengths, needs, and challenges of youth.

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Tactics</th>
</tr>
</thead>
</table>
| Peer Support | • Provide a supportive environment for all youth  
• Encourage positive peer connections  
• Help all youth feel they are part of a STEM community |
| Positive Youth Development | • Support all youth to make personal connections to and a greater sense of belonging in STEM  
• Help all youth develop self-efficacy and confidence in STEM  
• Elevate all youth voice and choice |
| Relevance | • Connect programming to school, home, and other settings  
• Leverage all youth interests, knowledge, and lived experiences  
• Show how STEM can make a difference in youth’s lives and in their communities |
| Supportive Relationships | • Make community and family connections  
• Provide opportunities to interact with and learn from diverse STEM role models  
• Recruit and retain staff skilled in developing and supporting positive relationships |

### SKILL DEVELOPMENT
Strategies that are personally relevant to youth and enable them to develop STEM and 21st century skills.

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Tactics</th>
</tr>
</thead>
</table>
| Connected Pathways | • Provide opportunities to learn about and explore a variety of STEM careers  
• Curate partnerships with other STEM programs to encourage further participation  
• Provide exposure to relatable STEM role models who have experienced diverse career pathways |
| Curriculum | • Foster engineering mindset practices (applying math and computer science)  
• Create a learning environment that offers voice and choice to engage all youth in STEM  
• Provide opportunities for all youth to do authentic practices that STEM professionals do |
| Professional Development (for the field) | • Provide opportunities for educators to reflect on their own lived experience  
• Provide training for educators to make STEM personally relevant to all youth  
• Engage educators in MGM professional development offerings (role models, engineering mindset, growth mindset, etc.) |
| 21st Century Skills | • Provide opportunities to collaborate and develop collaboration skills  
• Ask open-ended questions to help youth critically think and deepen their understanding  
• Facilitate development of a growth mindset |

---

*Created for STEM Next Opportunity Fund by the National Girls Collaborative Project*