

ACCESS TO STEM: A FRAMEWORK



CREATING SPACE FOR ALL LEARNERS

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.



Strategies	Tactics
Community Engagement	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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.



Strategies	Tactics
Peer Support	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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.



Strategies	Tactics
Connected Pathways	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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