



Sustainability Planning Tool

Intended Audience: Leadership

Purpose of the tool: The ability to sustain a program over a period of time is an important aspect of STEM Education programming development and implementation. It is important to have structures in place at the beginning of an initiative to ensure that the initiative can be sustained after the initial implementation or as keystone people transition in and out of the organization. Therefore, this template provides a framework of structural components needed for program sustainability. The STEM Sustainability Assessment Tool can assist a school and/or district in identifying appropriate sustainability component assets and/or needs.

The Texas Education Agency has developed the STEM Framework and four tools to assist a district in developing a local STEM program that is aligned to the high-quality indicators identified by the state.

- STEP 1** **Look at the Framework**
✦ Defines STEM, identifies objectives, STEM models, research-based instructional methods, outcomes, and high-quality indicators
- STEP 2** **Complete the STEM Needs Assessment**
✦ Identify needs and gaps in STEM programming
- STEP 3** **Complete the STEM Program Identification Guide**
✦ Identify the STEM model best aligned to the district
- STEP 4** **Complete the STEM Program Planning Guide**
✦ Use the STEM Program Identification Guide as a reference when planning the district's future STEM program.
The STEM Continuum Sample Experiences can be used to help generate ideas.
- STEP 5** **Complete the Sustainability Assessment Tool**
✦ Identify appropriate sustainability component assets and/or needs

I. STEM PROGRAM SUSTAINABILITY FRAMEWORK DOMAINS AND DEFINITIONS

Factors that affect sustainability (Domains)	Definitions
Environmental Support for STEM	<p>Having a supportive internal and external climate for the program and/or initiatives</p> <ul style="list-style-type: none"> • District/leadership support • Family and community support • Informal education and industry partners support
Funding Stability for STEM	<p>Establishing a braided and consistent financial base for the STEM program</p> <ul style="list-style-type: none"> • Local, state, and federal funding sources • Leveraging local resources • Funding is sustainable
Stakeholder Partnerships for STEM Programming	<p>Cultivating and maintaining connections between the program and its stakeholders</p> <ul style="list-style-type: none"> • Community partnerships • Informal education, higher education, and industry partnerships • Family and student connections
Organizational Capacity for STEM Programming	<p>Having the internal support and resources needed to effectively manage the STEM program and its activities</p> <ul style="list-style-type: none"> • District and school leadership support for the STEM program • Supportive organizational systems • Teacher knowledge/skill • STEM professional development
Evaluation of the STEM Program	<p>Assessing the STEM program to inform planning and documenting results</p> <ul style="list-style-type: none"> • A system of accountability • Assessments and artifacts at the district-level, building-level, and individual classroom-level • Communicating results to stakeholders
Adaptation of the STEM Program	<p>Taking actions that adapt and improve your STEM program to ensure its ongoing effectiveness</p> <ul style="list-style-type: none"> • Changes to the STEM program’s strategic plan • Leadership and personnel changes/additions • Operational changes/additions • STEM curricular program changes/additions
Communications about the STEM Program	<p>Strategic communication with stakeholders and the public about the program/initiative</p> <ul style="list-style-type: none"> • Marketing of the STEM program to a variety of stakeholders • A variety of strategies for information dissemination and communication with stakeholders
Strategic Planning for the STEM Program	<p>Using processes that guide a program’s directions, goals, and strategies</p> <ul style="list-style-type: none"> • STEM vision, mission, goals • Financial Plan • Sustainability Plan • Stakeholder roles and responsibilities

II. STEM PROGRAM SUSTAINABILITY ASSESSMENT TOOL

This survey will enable you/your organization to assess the current capacity for sustainability in regard to your STEM programming. The responses will identify sustainability strengths and challenges, which can be used to guide action planning for STEM education program development and/or on-going implementation.

Directions:
In the following survey, you will rate your STEM program across a range of specific factors that affect sustainability. **For each statement, circle the number that best indicates the extent to which your STEM program has or does the following things.** After completing the assessment, use the reflection questions for further discussion and action planning.

Environmental Support: Having a supportive internal and external climate for your STEM program

	TO LITTLE OR NO EXTENT				TO A VERY GREAT EXTENT	NOT ABLE TO ANSWER
1. Champions exist who strongly support the STEM program	1	2	3	4	5	NA
2. The STEM program has strong STEM champions with the ability to garner resources.	1	2	3	4	5	NA
3. The STEM program has leadership support from within the larger organization	1	2	3	4	5	NA
4. The STEM program has leadership support from outside of the organization.	1	2	3	4	5	NA
5. The STEM program has strong public support.	1	2	3	4	5	NA

- Reflection Questions:**
- To what extent is STEM being supported at the national, state, and local levels?
 - Are there community partners that could help your program better meet its goals?
 - What support is still needed for STEM to be successful at the district/campus level?
 - What are the barriers/challenges/solutions to obtaining and maintaining support?

Funding Stability: Establishing a consistent financial base for your STEM program

	TO LITTLE OR NO EXTENT				TO A VERY GREAT EXTENT	NOT ABLE TO ANSWER
1. The program has local funds available for STEM.	1	2	3	4	5	NA
2. The district implements policies to help ensure sustained funding.	1	2	3	4	5	NA
3. The STEM program has braided funding sources including a combination of local, state, and/or federal funding.	1	2	3	4	5	NA
4. The STEM program has sustained funding.	1	2	3	4	5	NA
5. The STEM program leverages local business and industry resources.	1	2	3	4	5	NA

- Reflection Questions:**
- What financial support is provided by administration (building-level funding)?
 - What financial support is provided by other entities?
 - What funding is needed short-term and long-term?
 - What are other local and national resources that could be considered?

Stakeholder Partnerships: Cultivating and maintaining connections between your STEM program and its stakeholders (PK-12 formal STEM educators, informal STEM educators, institutes of higher education, non-profits, business/industry partners, parents, and students)

	TO LITTLE OR NO EXTENT					TO A VERY GREAT EXTENT	NOT ABLE TO ANSWER
1. Diverse stakeholders are invested in the success of the program.	1	2	3	4	5	NA	
2. The STEM program communicates with stakeholders regularly.	1	2	3	4	5	NA	
3. Community organizations are involved with the STEM program.	1	2	3	4	5	NA	
4. Community members are passionately committed to local STEM programs.	1	2	3	4	5	NA	
5. The community is engaged in the development of STEM program goals.	1	2	3	4	5	NA	

Reflection Questions:

- What partnerships currently exist? What is the strength of each of these partnerships? What do both sides bring to the partnership and how does each partner benefit?
- Who is/will be responsible and accountable for partnerships?
- What district/school protocols are in place for partnerships?
- How are partnerships being assessed to ensure alignment to initiatives and benefit to stakeholders?
- What are the barriers/challenges/solutions to developing or sustaining partnerships?

Organizational Capacity: Having the internal support and resources needed to effectively manage your STEM program and its activities

	TO LITTLE OR NO EXTENT					TO A VERY GREAT EXTENT	NOT ABLE TO ANSWER
1. The STEM program is well integrated into the core content areas.	1	2	3	4	5	NA	
2. Organizational systems are in place to support the various STEM program needs.	1	2	3	4	5	NA	
3. Leadership effectively articulates the vision of the STEM program to external partners.	1	2	3	4	5	NA	
4. Leadership efficiently manages staff and other resources.	1	2	3	4	5	NA	
5. The STEM program has adequately trained staff to complete the program's goals.	1	2	3	4	5	NA	
6. A STEM professional development plan has been developed and communicated with staff and the STEM community.	1	2	3	4	5	NA	

Reflection Questions:

- What other supports are present in the district/school? (e.g. district leadership, building leadership, teacher leadership, faculty and staff expertise and skill, pre-service teachers, families, community partners/volunteers, etc.)
- To what extent are there school to school, classroom to classroom, and/or teacher to teacher collaborations within the district/school? What might collaboration include (e.g. resources, equipment and materials, expertise, successes and failures)?
- What will STEM professional development look like short-term and long-term?
- Are there STEM professional learning communities and/or community of practice opportunities for teachers and staff?
- What are the barriers/challenges/solutions to developing or sustaining organizational capacity?

Program Evaluation: Assessing your STEM program to inform planning and documenting results

	TO LITTLE OR NO EXTENT				TO A VERY GREAT EXTENT	NOT ABLE TO ANSWER
1. The STEM program is using the STEM Fidelity of Implementation Rubric for program evaluation.	1	2	3	4	5	NA

Reflection Questions:

- What is the accountability system in place in regard to STEM teaching and learning in the district/school?
- How will the STEM initiative(s) be assessed and evaluated?
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Program Adaptation: Taking actions that adapt and improve your STEM program to ensure its ongoing effectiveness

	TO LITTLE OR NO EXTENT				TO A VERY GREAT EXTENT	NOT ABLE TO ANSWER
1. The STEM program periodically reviews the evidence collected and adjusts to better serve students.	1	2	3	4	5	NA
2. The STEM program adapts instructional strategies to better serve students.	1	2	3	4	5	NA
3. The STEM program adapts to new content and technology.	1	2	3	4	5	NA
4. The STEM program proactively adapts to changes with labor market needs.	1	2	3	4	5	NA
5. The STEM program makes decisions about which components are ineffective and should not continue.	1	2	3	4	5	NA
6. The STEM program evaluates teachers' strengths and opportunities for growth and develops professional development to address specific areas.	1	2	3	4	5	NA

Reflection Questions:

- How is assessment and evaluation information used to drive future program decision-making?
- When will changes take place?

Communications: Strategic communication with stakeholders and the public about your STEM program

	TO LITTLE OR NO EXTENT				TO A VERY GREAT EXTENT	NOT ABLE TO ANSWER
1. The STEM program has communication strategies to secure and maintain public support.	1	2	3	4	5	NA
2. Leadership and STEM program staff communicate the need for the STEM program to the public using labor market data.						

Reflection Questions:

- In what ways are STEM activities/projects/events communicated to the rest of the school community and beyond?
- What are the barriers/challenges/solutions to communicating with specific stakeholders?
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Strategic Planning: Using processes that guide your STEM program’s direction, goals, and strategies

	TO LITTLE OR NO EXTENT				TO A VERY GREAT EXTENT	NOT ABLE TO ANSWER
1. The STEM program plans for future resource needs.	1	2	3	4	5	NA
2. The STEM program has a long-term financial plan.	1	2	3	4	5	NA
3. The STEM program has a sustainability plan.	1	2	3	4	5	NA
4. The STEM program’s goals are understood by all stakeholders.	1	2	3	4	5	NA
5. The STEM program clearly outlines roles and responsibilities for all stakeholders.	1	2	3	4	5	NA

Reflection Questions:

- To what extent is STEM included in the district’s and/or school’s vision/mission/strategic plan? What are the short and long-term goals of the STEM program/initiative?
- How will STEM programming be implemented to meet these goals?
- How will the STEM program be assessed to determine if goals are being met?

III. STEM PROGRAM SUSTAINABILITY RATING

Once you have completed the STEM Program Sustainability Assessment, use the rating sheet to calculate your scores.

	Add up the scores in each domain. Exclude 'NA'	Divide the domain total by the total number of items with a score. Exclude 'NA'	Average together all of the domain scores.
	Domain Total:	Average Score for Domain:	Overall Score:
Ecosystem Support			
Funding Stability			
Stakeholder Partnerships			
Organizational Capacity			
Program Evaluation			
Program Adaptation			
Communications			
Strategic Planning			

Use these results to guide sustainability action planning for your STEM program. The domains with lower average scores indicate areas where your program's capacity for sustainability could be improved. The domains with lower averages can be supported through the use of STEM tools from the toolkit and can be found in the table in Section IV: STEM Program Sustainability Action Planning Template.

I. STEM PROGRAM SUSTAINABILITY ACTION PLANNING TEMPLATE

This action planning template is a tool for developing action steps towards improving your STEM program model (Introductory, Exploratory, Partial, or full immersion). Use your STEM program sustainability assessment results and discussion of the associated reflection questions in each domain to develop a sustainability plan for your STEM program.

Instructions: Use this Sustainability Action Planning Template to assist in creating action steps to meet the sustainability needs of your STEM program. Based on the areas needing improvement, identified by lower scores on the sustainability assessment, create at least one goal for each sustainability domain. Develop action steps that will help you to achieve each goal and a timeline of when these action steps will occur. Identify the people and resources needed to implement each action step. Determine appropriate evaluation checkpoints for assessing your progress towards meeting the identified goals. Supporting TEA Tools from the STEM Toolkit are identified for reference to support the development and implementation of this plan.

Factors that affect sustainability (Domains)	Develop a sustainability goal for each domain based on your STEM program sustainability assessment results	Develop action steps with timelines that will help you to achieve each goal.	Who needs to be involved to implement each step?	What resources are needed to implement each step?	What are the evaluation checkpoints that will help to ensure progress towards goals?
Environmental Support for STEM					
Tools from the TEA STEM Toolkit to support this domain	<p>*Leadership Roles and Responsibilities –This document provides an overview of STEM program responsibilities for a variety of leadership roles. This tool can assist with identifying the appropriate supports provided by a variety of leaders internal and external to the organization.</p> <p>*STEM School-wide Implementation and Planning Guide –This guide can be referenced to align environmental supports with STEM program quality indicators such as Equity and Access; STEM Program Design and Timeline; Stakeholder Engagement; and Communication/ Marketing Strategies.</p>				
Funding Stability for STEM					
Tools from the TEA STEM Toolkit to support this domain	<p>*Funding Needs Chart and Sources for STEM –This chart provides an overview of a variety of funding sources for STEM education. This tool can assist with identifying appropriate funding sources for the specific needs of your STEM program.</p> <p>*Leadership Roles and Responsibilities -This document provides an overview of STEM program responsibilities for a variety of leadership roles including stakeholder partners. This tool can assist with identifying the individuals in leadership responsible for a variety of funding supports.</p> <p>*STEM School-wide Implementation and Planning Guide -This guide can be referenced to align funding stability with STEM program quality indicators such as School Climate, Culture, and Structure; STEM Program Design and Timeline; and Stakeholder Engagement.</p>				

Factors that affect sustainability (Domains)	Develop a sustainability goal for each domain based on your STEM program sustainability assessment results	Develop action steps with timelines that will help you to achieve each goal.	Who needs to be involved to implement each step?	What resources are needed to implement each step?	What are the evaluation checkpoints that will help to ensure progress towards goals?
STEM Stakeholder Partnerships					
Tools from the TEA STEM Toolkit to support this domain	<p>*Leadership Roles and Responsibilities - This document provides an overview of STEM program responsibilities for a variety of leadership roles including stakeholder partners. This tool can assist with identifying how program partners can support the STEM program.</p> <p>*STEM School-wide Implementation and Planning Guide - This guide can be referenced to align stakeholder partnership sustainability with STEM program quality indicators such as STEM Program Design and Timeline; Curricular Aspects of the STEM Program; Stakeholder Engagement; and Communication/Marketing strategies.</p> <p>*Family Interest Survey – This survey provides a communication and information gathering mechanism that can work to better the relationships/partnerships with the school community, specifically families. This tool can assist with identifying appropriate family engagement opportunities to develop and maintain collaborations between the school and its families.</p> <p>*Student Interest Survey - This survey provides a communication and information gathering mechanism that can work to better the relationships/partnerships with the school community, specifically students. This tool can assist with identifying appropriate student engagement opportunities to develop and maintain collaborations between the students and other stakeholders.</p> <p>*Teaching and Learning Progressions – This document provides an overview of the progression of STEM teaching and learning from starting-point implementation to a more advanced level of implementation and can assist in identifying stakeholder partnerships. Throughout the progression as teaching and learning becomes more authentic, there is a need for more real-world authentic experiences. Stakeholder partnerships that support authentic learning, specifically industry, higher education, and informal education partnerships are identified.</p>				
Organizational Capacity for STEM					

Factors that affect sustainability (Domains)	Develop a sustainability goal for each domain based on your STEM program sustainability assessment results	Develop action steps with timelines that will help you to achieve each goal.	Who needs to be involved to implement each step?	What resources are needed to implement each step?	What are the evaluation checkpoints that will help to ensure progress towards goals?
Tools from the TEA STEM Toolkit to support this domain	<p>*Teaching and Learning Progressions - This document provides an overview of the progression of STEM teaching and learning from starting-point implementation to a more advanced level of implementation and can assist in identifying professional development needs. Throughout the progression as teaching and learning becomes more authentic, there is a need for more real-world authentic experiences. Stakeholder partnerships that support authentic learning, specifically industry, higher education, and informal education partnerships are identified.</p> <p>*Leadership Roles and Responsibilities - This document provides an overview of STEM program responsibilities for a variety of leadership roles. This tool can assist with identifying the ways in which organizational leaders support a STEM program.</p> <p>*STEM School-wide Implementation and Planning Guide - This guide can be referenced to align organizational capacity sustainability for STEM with STEM program quality indicators such as School Climate, Culture, and Structure; Curricular Aspects of the STEM Program; Stakeholder Engagement; and Communication/Marketing strategies.</p> <p>*Teacher Survey - This survey provides a communication and information gathering mechanism that works to determine the capacity of teachers in regard to STEM teaching and learning and beliefs about STEM education. This tool can assist with identifying appropriate professional development opportunities for teachers.</p> <p>*STEM Needs Assessment – This assessment works to determine the specific needs of the STEM program. Information gathered from this assessment can assist in identifying appropriate human capital resources, as well as instructional/programmatic resources.</p> <p>*High-Quality STEM Model Identification Guide – This rubric provides an overview of STEM program models at various levels of immersion: Exploratory Model (Starting Point); Introductory Model (Developing); Partial Immersion (Intermediate); Full Immersion (Advanced). This tool can assist a district/campus in determining which model is aligned to current programming.</p>				
Evaluation of the STEM Program					
Tools from the TEA STEM Toolkit to support this domain	<p>*High-Quality Fidelity of Implementation Rubric – This tool assists in evaluating the quality of the STEM program based on a variety of indicators. Information gathered using this assessment can be used to inform program planning and implementation, demonstrate successes to funders and other key stakeholders, and can provide strong evidence to the public that the program works.</p>				
Adaptation of the STEM Program					

Factors that affect sustainability (Domains)	Develop a sustainability goal for each domain based on your STEM program sustainability assessment results	Develop action steps with timelines that will help you to achieve each goal.	Who needs to be involved to implement each step?	What resources are needed to implement each step?	What are the evaluation checkpoints that will help to ensure progress towards goals?
Tools from the TEA STEM Toolkit to support this domain	<p>*STEM School-wide Implementation and Planning Guide - This guide can be referenced to develop appropriate STEM program adaptations. Aligned quality indicators include: Equity and Access; School Climate, Culture and Structure; STEM Program Design and Timeline; Curricular Aspects of the STEM Program; Stakeholder Engagement; Communication/Marketing strategies.</p> <p>*STEM Implementation Reflection Tool for Teachers – This document provides example questions that can be used for introspection, reflection, and discussion after the implementation of a STEM lesson, unit, project or experience. The questions and the resulting reflective answers can assist in identifying and implementing improvements and/or adjustments to STEM teaching and learning experiences.</p>				
Communications about STEM Program					
Tools from the TEA STEM Toolkit to support this domain	<p>*STEM School-wide Implementation and Planning Guide - This guide can be referenced to determine appropriate communication mechanisms for communicating about the STEM program. Aligned quality indicators include: Communication/Marketing strategies.</p> <p>*Leadership Roles and Responsibilities - This document provides an overview of STEM program responsibilities for a variety of leadership roles. This tool can assist with identifying the ways in which organizational leaders communicate with other stakeholders.</p>				
Strategic Planning for STEM programming					
Tools from the TEA STEM Toolkit to support this domain	<p>*STEM School-wide Implementation and Planning Guide - This guide can be referenced to determine future resource needs, financial planning, communication of STEM program’s goals, and roles and responsibilities of stakeholders. Quality indicators include: Equity and Access; School Climate, Culture and Structure; STEM Program Design and Timeline; Curricular Aspects of the STEM Program; Stakeholder Engagement; Communication/Marketing strategies</p> <p>*Leadership Roles and Responsibilities - This document provides an overview of STEM program responsibilities for a variety of leadership roles and can assist with identifying roles and responsibilities of leaders needed for strategic planning.</p> <p>*High-Quality STEM Model Identification Guide – This rubric provides an overview of STEM program models at various levels of immersion: Exploratory Model (Starting Point); Introductory Model (Developing); Partial Immersion (Intermediate); Full Immersion (Advanced). This tool can assist in identifying appropriate resource needs, financial planning needs, communication of STEM program’s goals, and roles and responsibilities of stakeholders based on the model being implemented.</p> <p>*High-Quality Fidelity of Implementation Rubric – This tool assists in evaluating the quality of the STEM program based on a variety of indicators. Information gathered using this assessment can be used to inform strategic planning.</p>				