

District/Campus STEM Overview for Stakeholders Cover Page

Audience

Template – District/Campus Administration

Finished Product – All stakeholders

Purpose

The District/Campus STEM Overview for Stakeholders template aims to provide stakeholders with a succinct overview of local STEM programming aligned to the Texas STEM Framework (PDF). This overview allows district/campus administration to communicate STEM programming with their local STEM ecosySTEM (families, institutes of higher education, business/industry, and non-profits). It provides stakeholders with information about the district/campus's STEM programming components, including the theory of action, strategies to success, implementation model progression, and high-quality educational indicators.

Components

Theory of Action

This section provides an overview of leadership, educator, and student strategies used and implemented to meet STEM education objectives.

STEM Education Model

This section provides an overview of the Model of STEM Education that the district/campus has an alignment too. These models are defined within the Texas STEM Model Progression. The Model Identification Tool (PDF) was created to assist districts in identifying the model to which they are most aligned and set goals for moving toward their targeted STEM model.

High-Quality Indicators for STEM Program Components

This section provides an overview of the district's/campus program strengths and goals for growth for each of the Domains of the Texas STEM Education Framework. The TEA has developed a <u>PK-20 STEM Education Program Planning Guide (PDF)</u> to assist in breaking down each high-quality indicator and setting goals for local STEM education programming.



District/Campus STEM Overview for Stakeholders

Insert District/Campus Logo

Insert District/Campus Name

Texas Definition of STEM Education

STEM (Science, Technology, Engineering, and Mathematics) education is a method of hands-on teaching and learning where students learn to apply academic content by creatively solving real-world problems with innovative design-based thinking to prepare students for future career opportunities.

What is the STEM Education Framework?

This district framework aligns with the statewide <u>Texas STEM Education Framework (PDF)</u>. It provides stakeholders with **[district/school's]** STEM programming components, including the theory of action, strategies to success, implementation model progression, and high-quality educational indicators.

Theory of Action

District/School Objectives	Strategies to Success			
	Leadership	Educators	Students	
Insert district/school objectives related to STEM education	Insert strategies involving district/school leadership that will assist in meeting each objective. Examples might include but are not limited to strategies related to leaders • providing support for instructional materials, scheduling, professional development, planning time • engaging and communicating with stakeholders about the program • advocating for the inclusion of STEM program components • providing accountability measures for staff	Insert strategies involving educators that will assist in meeting each objective. Examples might include but are not limited to strategies related to educators • engaging in STEM professional development activities • aligning instruction with the TEKS and STEM education framework • integrating content across disciplines • implementing learning experiences for students that include scientific inquiry, the engineering design process, and problem-based learning	Insert strategies involving students that will assist in meeting each objective. Examples might include but are not limited to strategies related to students • engaging in high-quality STEM learning experiences in the classroom • engaging in authentic STEM learning experiences beyond the classroom • applying math and science knowledge and practices across all courses (both STEM and non-STEM) • using math and science knowledge and skills in informal and after-school experiences	

Texas STEM Model Progression

Exploratory: Starting Point	Introductory: Developing	Partial Immersion: Intermediate	Full Immersion: Advanced
STEM experiences are stand- alone events	Stem experiences are available for a limited number of students	STEM experiences are embedded into the lesson cycle regularly	STEM experiences are taught across all content areas with a cross-curricular approach for all students
▼	▼	•	▼
STEM experiences are not connected to content	STEM experiences are anchored in one elective area throughout the school	STEM experiences are cross- curricular within each grade	STEM experiences are taught through PBL/Design-based challenges
▼	•	•	▼
STEM experiences are not aligned to TEKS	STEM experiences might be aligned to TEKS	STEM experiences are embedded in core content and aligned to TEKS	STEM experiences address multiple TEKS and subject areas

Exploratory Model - Students periodically experience STEM through stand-alone events offered by the school or the community **Introductory Model** - A designated group of students engage in STEM experiences tied to content during the school year **Partial Immersion Model** - All students experience academic content through integrated STEM activities regularly throughout the year

<u>High-Quality Indicators</u> for STEM Program Components

Domains	Program Strengths	Goals for Growth	
Domain 1 Equity of STEM Programming	List examples of the program's strengths related to Indicator 1.1	List the district/school's goal(s) related to Indicator 1.1	
Domain 2 STEM Climate and Culture	List examples of the program's strengths related to Indicators 2.1 and 2.2	List the district/school's goal(s) related to Indicators 2.1 and 2.2	
Domain 3 STEM Program Design	List examples of the program's strengths related to Indicators 3.1-3.4	List the district/school's goal(s) related to Indicators 3.1-3.4	
Domain 4 Curricular Aspects of the STEM Program	List examples of the program's strengths related to Indicators 4.1-4.8	List the district/school's goal(s) related to Indicators 4.1-4.8	
Domain 5 Stakeholder Engagement in STEM	List examples of the program's strengths related to Indicators 5.1-5.5	List the district/school's goal(s) related to Indicators 5.1-5.5	
Domain 6 Communication/ Marketing Strategies	List examples of the program's strengths related to Indicator 6.1	List the district/school's goal(s) related to Indicator 6.1	