# Texas Collaborative for Science Innovation (TxCSI)

### **Transforming Science Education Continuum**

The new Texas science standards for 6th - 8th grades provide an opportunity to transform science teaching and learning for all students. This tool is intended to support TxCSI districts with:

- reflecting on the components of their system that can serve as levers for improvement,
- creating an action plan,
- monitoring progress in several key system areas, and
- identifying potential next steps for improvement.

This tool provides examples of what progress in each system component might look like in different stages of implementation. It is **important to note that the examples provided describe just one of many pathways to implementation and that some descriptions may not be applicable to all districts, depending on their specific context**. These example descriptions for each stage of implementation are intended to help districts as they reflect on their current state, create an action plan, and monitor progress in several key system areas.

Resources for this continuum include: Key Takeaways from the Early Years of Transforming Science Education for the Next Generation (WestEd, 2020) and NGSS District Implementation Indicators (NextGenScience and Achieve, 2017)

1 - Shared Leadership: Science Leadership Teams2 - H Profe Teach	<u>High Quality</u> ofessional Learning for achers and Leaders	<u>3 – High Quality</u> Instructional Materials	<u>4 – High Quality</u> Assessments	<u>5 – Adequate and Sustained</u> Support for Science	<u>6 – Effective Science</u> Instruction Implementation and Monitoring
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**1 – Shared Leadership: Science Leadership Teams** People from all parts of the education system have important roles to play in designing and managing the implementation of new science standards and transformation of science education.

Sustaining	Developing	Introducing	Not Evident
A – A Science Leadership Team (SLT) that includes district, school, classroom, and community level leaders is <b>established</b> , with <b>specified systems and processes for their</b> <b>collaborative work</b> , and authority to make policy decisions about the district science program.	A – A Science Leadership Team (SLT) that includes district, school, classroom, and community level leaders is identified and developing the systems and processes to function as a collaborative group.	A – A Science Leadership Team (SLT) is identified, but at least one important leadership role (district, school, and classroom, or community) is missing from the team OR the team has not yet begun developing systems and processes for working collaboratively.	A – The district does not have plans to create a Science Leadership Team (SLT).
<b>B</b> – In addition to the SLT, stakeholders <b>representing all parts of the education</b> <b>system</b> (e.g., teachers, parents, administrators, students, community members, local organizations) are <b>systematically included in</b> <b>decision making processes</b> for the district science program.	<b>B</b> – Stakeholders representing <b>some parts of</b> <b>the education system</b> (e.g., teachers, parents, administrators, students, community members, local organizations) are <b>regularly included in</b> <b>decision making processes</b> for the district science program.	<b>B</b> – The district <b>sometimes collects feedback</b> <b>from stakeholders from some parts of the</b> <b>education system</b> (e.g., teachers, parents, administrators, students, community members, local organizations) on the decisions made for the district science program.	<b>B</b> – The district does not seek input from education stakeholders other than administrators when decisions are made for the district science program.
C – A current state analysis of the district science program is complete and areas of need identified.	C – A current state analysis of the district science program is <b>complete and data is</b> <b>being analyzed to determine areas of need.</b>	C – A current state analysis of the district science program is planned but data has not yet been collected.	C – A current state analysis of the district science program is not planned nor is the collection of data.
D – The SLT has created a fully developed vision, action plan, and progress monitoring process based on input from additional district, school and community stakeholders.	D – The SLT is in the process of developing a district vision, action plan, and progress monitoring process based on input from district, school and community stakeholders.	<ul> <li>D – The district may have an existing science vision and development plan that are not aligned to the new TEKs or instructional model.</li> <li>The district intends to update the vision for science and develop an action plan.</li> </ul>	<b>D/E</b> – The district <b>does not have an existing</b> <b>science vision or development plan, and</b> <b>does not intend to develop</b> a science vision and action plan to align with the new TEKS.
<ul> <li>E - The district's science action plan is being implemented, and includes individual responsibilities, timelines, budgets, annual goals, and metrics related to <ul> <li>Educator and leader professional learning</li> <li>Instructional materials selection and refurbishment</li> <li>A system of high quality assessments</li> <li>Internal and external communications</li> <li>Collaborations with community stakeholders</li> <li>District policies related to school structures, staffing, and time for science</li> <li>Funding and resources for sustainable implementation.</li> </ul> </li> </ul>	<ul> <li>E – The district's science action plan is under development and does not yet include one or more of the following areas: <ul> <li>Educator and leader professional learning</li> <li>Instructional materials selection and refurbishment</li> <li>A system of high quality assessments</li> <li>Internal and external communications</li> <li>Collaborations with community stakeholders</li> <li>District policies related to school structures, staffing, and time for science</li> <li>Funding and resources for sustainable implementation.</li> </ul> </li> </ul>	<ul> <li>E - When developing the district action plan, the district plans to include fewer than half of the following areas: <ul> <li>Educator and leader professional learning</li> <li>Instructional materials selection and refurbishment</li> <li>A system of high quality assessments</li> <li>Internal and external communications</li> <li>Collaborations with community stakeholders</li> <li>District policies related to school structures, staffing, and time for science</li> <li>Funding and resources for sustainable implementation.</li> </ul> </li> </ul>	



<b>F</b> – The SLT has <b>implemented a district-wide</b> <b>communications campaign</b> about the district science vision and its relation to the new science standards that is designed to develop buy-in and support from all stakeholders.	<b>F</b> – The SLT <b>is planning a communications</b> <b>campaign</b> about the district science vision and the new science TEKS.	<b>F</b> –The SLT <b>intends to develop a</b> <b>communications campaign</b> about the district science vision and the new science TEKS.	F –The district has no plan to develop a communications campaign about the new science TEKS.
<b>G</b> – The SLT <b>routinely measures the impact</b> <b>of their work</b> , adjusting the action plan as needed based on the results.	<b>G</b> – The SLT occasionally measures the impact of their work, adjusting the work as needed based on the results. However, the action plan is not changed.	<b>G</b> – The SLT <b>plans to include a process and</b> <b>timelines for measuring the impact</b> of their work in their action plan.	G – The district <b>does not plan to measure the</b> <b>impact</b> of the science program.
Sustaining	Developing	Introducing	Not Evident
Evidence of Implementation from –			
District Survey:			
Focus Groups:			
Other:			



**2 – High Quality Professional Learning for Teachers and Leaders** *Professional learning is the means by which teachers, administrators, and other staff acquire, enhance, and refine knowledge, skills, practices, and mindsets* necessary to create and support high levels of learning for all students.

Sustaining	Developing	Introducing	Not Evident
<ul> <li>A – Long-term district-wide professional learning plans for leaders and teachers are developed and implemented.</li> </ul>	A – Long-term district-wide professional learning plans for leaders and teachers are developed and in the process of being implemented.	<ul> <li>A – The district's action plan is under development and the SLT plans to include strategies for district-wide professional learning for leaders and teachers.</li> </ul>	A – Long-term district-wide professional learning plans for leaders and teachers have not yet been developed.
B – Teacher professional learning focuses on curriculum-based study, learning, and practice, including in-depth unit and lesson internalizations.	<b>B</b> – The district <b>plans to shift</b> teacher professional learning to <b>curriculum-based</b> <b>study, learning, and practice</b> once new instructional materials are selected	<b>B</b> – The district <b>plans to shift some, but not</b> <b>all</b> , teacher professional learning to <b>curriculum-based study, learning, and</b> <b>practice</b> once new instructional materials are selected.	<b>B</b> – The district has <b>no plans</b> to focus teacher professional learning on <b>curriculum-based study, learning, or practice.</b>
<ul> <li>C - All district 6th - 8th science teachers participate in ongoing and differentiated high quality professional learning, including practice sessions, that meet their individual needs and prepare them for implementing instructional strategies aligned to the districts' science vision including:         <ul> <li>Three-dimensional learning,</li> <li>Anchoring instruction in phenomena or problems,</li> <li>Students learning through the use of SEPs (e.g., creating and revising models, constructing scientific explanations, etc.), and</li> <li>Centering student discourse and sensemaking in the classroom</li> <li>Analyzing and interpreting student assessment data including student work samples</li> </ul> </li> </ul>	<ul> <li>C - At least 50% of 6th - 8th science teachers participate in ongoing and differentiated high quality professional learning, including practice sessions, that meet their individual needs and prepare them for implementing instructional strategies aligned to the districts' science vision including:         <ul> <li>Three-dimensional learning,</li> <li>Anchoring instruction in phenomena or problems,</li> <li>Students learning through the use of SEPs (e.g., creating and revising models, constructing scientific explanations, etc.), and</li> <li>Centering student discourse and sensemaking in the classroom</li> <li>Analyzing and interpreting student assessment data including student work samples</li> </ul> </li> </ul>	<ul> <li>C - Fewer than 50% of 6th - 8th science teachers participate in ongoing and differentiated high quality professional learning, including practice sessions, that meet their individual needs and prepare them for implementing instructional strategies aligned to the districts' science vision including: <ul> <li>Three-dimensional learning,</li> <li>Anchoring instruction in phenomena or problems,</li> <li>Students learning through the use of SEPs (e.g., creating and revising models, constructing scientific explanations, etc.), and</li> <li>Centering student discourse and sensemaking in the classroom</li> <li>Analyzing and interpreting student assessment data including student work samples</li> </ul> </li> </ul>	C – The district does not offer high quality, differentiated professional learning for teachers that focuses on the features of effective science instruction in relation to the district's science vision.
D – All leaders in the district participate in ongoing high quality professional learning and deeply understand the features of effective science instruction, preparing them to evaluate teacher effectiveness in relation to the district's vision for science.and to provide appropriate and responsive coaching and support for teachers.	D – At least 50% of leaders in the district participate in ongoing high quality professional learning and deeply understand the features of effective science instruction, preparing them to evaluate teacher effectiveness in relation to the district's vision for science.and to provide appropriate and responsive coaching and support for teachers.	D – Fewer than 50% of leaders in the district participate in ongoing high quality professional learning and deeply understand the features of effective science instruction, preparing them to evaluate teacher effectiveness in relation to the district's vision for science.and to provide appropriate and responsive coaching and support for teachers.	<b>D</b> – The district <b>does not offer high quality</b> <b>professional learning for leaders</b> that focuses on the features of effective science instruction in relation to the district's vision for science.
E – Teachers and leaders have sufficient protected time to participate in science professional learning.	E – At least 50% of the time needed for teachers and leaders to participate in science professional learning is protected in their	E – Less than 50% of the time needed for teachers and leaders to participate in science professional learning is protected in their	<ul> <li>E – Teachers and leaders have no protected time to participate in science professional learning.</li> </ul>



	schedules.	schedules.	
F –Multiple teachers and leaders regularly provide input for and participate in the development of professional learning.	F –. At least one teacher and one leader regularly provide input for and participate in the development of professional learning.	F –. Teachers and leaders provide input in, but do not participate in the development of professional learning.	F –. Teachers and leaders are not consulted in the development of professional learning.
<b>G</b> –Confidential <b>feedback from professional</b> <b>learning participants is consistently</b> <b>collected and analyzed</b> to identify what is working well and where there are opportunities for improvement.	G – Feedback from professional learning participants is occasionally collected and analyzed to identify what is working well and where there are opportunities for improvement.	G – Feedback is rarely elicited from professional learning participants or is not used to identify opportunities for improvement.	<b>G</b> – <b>Feedback is not elicited</b> from professional learning participants.
H – Future professional learning facilitators from within the district are regularly identified and trained.	<ul> <li>H – Future professional learning facilitators from within the district are regularly identified but not trained.</li> </ul>	H – Future professional learning facilitators from within the district are rarely identified and may or may not receive training.	H – No future professional learning facilitators from within the district are identified or trained.
Sustaining	Doveloping	Introducing	Net Evident
Sustaining	Developing	introducing	NOT EVIDENT
Evidence of Implementation from –	Developing	Introducing	NOT Evident
Evidence of Implementation from – District Survey:	Developing	Introducing	Not Evident
Evidence of Implementation from – District Survey:	Developing	Introducing	Not Evident
Evidence of Implementation from – District Survey: Focus Groups:	Developing	Introducing	
Sustaining         Evidence of Implementation from –         District Survey:         Focus Groups:	Developing	Introducing	Not Evident
Sustaining         Evidence of Implementation from –         District Survey:         Focus Groups:         Other:			



## **3 – High Quality Instructional Materials**

High quality instructional materials are the academic content in a course of study that include curriculum and supporting student and teacher resources all of which feature instructional strategies that use phenomena or problems to focus all classroom activities; authentically engage students in initiating their own learning; and build toward student understanding and combined use of all three dimensions of science.

Sustaining	Developing	Introducing	Not Evident
A – A transparent and clearly communicated process for review and selection of 6th - 8th science instructional materials is established and implemented. The selection process incorporates input from stakeholders representing other content areas, non-educators, students, and parents, all of whom are trained on how to evaluate instructional materials for their quality and alignment with the TEKS.	A – A process for reviewing and selecting high quality 6th - 8th science instructional materials aligned to the new TEKs is outlined but not yet communicated or implemented. Various stakeholders are included in the selection plan but are not yet trained on how to evaluate instructional materials for their quality and alignment with the TEKS.	A – The SLT plans to develop a process for selecting high quality instructional materials aligned to the TEKs but the plan is not yet drafted OR representation of various stakeholders is limited (ex. – only district administrators are included).	A – The district does not plan to specify a selection process for 6th - 8th science materials.
<ul> <li>B - The selected materials align with the district's science vision and meet or exceed most of the criteria outlined in the <u>TEA HQIM</u></li> <li><u>Rubric K-8 Science - 2nd DRAFT</u> including:</li> <li>units and lessons that are vertically aligned;</li> <li>make horizontal connections to other content areas;</li> <li>use phenomena or problems to focus all learning;</li> <li>build toward student understanding and combined use of all three components of science (content, scientific and engineering practices (SEPs), and recurring themes and concepts (RTCs)</li> <li>are accessible to all students, and explicitly include supports to engage diverse learners.</li> </ul>	<ul> <li>B - All materials under consideration align with the district's science vision and meet or exceed most of the criteria outlined in the <u>TEA HQIM Rubric K-8 Science - 2nd DRAFT</u> including:</li> <li>units and lessons that are vertically aligned;</li> <li>make horizontal connections to other content areas;</li> <li>use phenomena or problems to focus all learning;</li> <li>build toward student understanding and combined use of all three components of science (content, scientific and engineering practices (SEPs), and recurring themes and concepts (RTCs)</li> <li>are accessible to all students, and explicitly include supports to engage diverse learners.</li> </ul>	B – Criteria for materials to be considered somewhat align with the district's science vision and the TEA HQIM Rubric K-8 Science <u>– 2nd DRAFT</u> . However, some of the critical aspects of the district's science vision for materials or the TEA rubric are missing from the criteria.	B – Criteria for selection of materials do not align with the district's science vision or with the criteria outlined in the TEA HQIM <u>Rubric K-8 Science – 2nd DRAFT</u> . However, some of the critical aspects of the district's science vision for materials or the TEA rubric are missing from the criteria
C – A process is in place in the district for regular inventories of all science instructional materials and equipment, including supplemental materials and consumables, that are used in classrooms.	C – The district has collected some data about the science instructional materials and equipment used in classrooms but a regular process for inventories is not implemented.	C – The district plans to periodically collect some data about the science instructional materials and equipment used in classrooms but <b>data is not yet collected.</b>	<b>C</b> – The district <b>has no plans to collect data</b> about the science instructional materials and equipment used in classrooms.
D – Long-term procurement and funding strategies are in place to ensure that all	D – The district has allocated funding for the one-time selection and procurement of new	D – The district plans to allocate funding for the one-time selection and procurement of	D – The district does not have funding for selection and procurement of 6th - 8th



students and teachers will continue to have access to high quality science instructional materials, including classroom consumables.	6th - 8th science instructional materials.	new 6th - 8th science instructional materials.	science instructional materials.
E – The district has developed and is implementing a multi-year plan that ensures all educators receive differentiated professional learning that prepares them to become expert users of the new materials; all school administrators receive professional learning to support and monitor curriculum implementation in their classrooms. NOTE: Ties to domain 2, <u>Professional Learning</u>	E – The district has developed, but is not yet implementing, a multi-year plan that ensures all educators receive differentiated professional learning that prepares them to become expert users of the new materials; all school administrators receive professional learning to support and monitor curriculum implementation in their classrooms.	E – The district intends to develop a multi-year plan that ensures all educators receive differentiated professional learning that prepares them to become expert users of the new materials; all school administrators receive professional learning to support and monitor curriculum implementation in their classrooms.	E – The district does not intend to develop a multi-year plan that ensures leaders and educators receive differentiated professional learning that prepares them to become expert users of the new materials.
F – An evaluation plan is in place and consistently used to identify successes and challenges of implementation across district classrooms and determine where supports are needed to improve implementation (professional learning, district-created adaptations, instructional coaching, curricular guidance documents, supplemental programs, etc.). NOTE: Ties to domains 2 and 6, <u>Professional</u> <u>Learning</u> and <u>Effective Science Instruction</u> <u>Implementation and Monitoring</u>	F –.An evaluation plan to identify successes and challenges of implementation across district classrooms and determine where supports are needed to improve is developed but not yet put into practice.	F –The SLT intends to develop an evaluation plan to identify successes and challenges of implementation across district classrooms and determine where supports are needed to improve.	F – The district does not plan to evaluate successes and challenges of implementation
Sustaining	Developing	Introducing	Not Evident
Evidence of Implementation from –			
District Survey:			
Focus Groups:			
Other:			

## 4 – High Quality, Aligned Assessments

Assessments support student progress toward science learning goals and drive conversations about ways to adjust instruction to better support student learning. High quality formative and summative assessments in science are phenomena/problem driven and incorporate all three components of science outlined in the TEKs – core content; scientific and engineering practices; and recurring themes and concepts.

Sustaining	Developing	Introducing	Not Evident
A – The district assessment plan for 6th - 8th science is complete and includes strategies for supporting student learning with a variety of assessment types aligned to the district's science vision and designed for different purposes including assessments in all 3 grades that prepare students to meet or exceed expectations on the 8th science STAAR.	A – The district assessment plan for 6th - 8th science is complete and includes strategies for supporting student learning with a variety of assessment types aligned to the district's science vision and designed for different purposes. However, assessments that prepare students to meet or exceed expectations on the science STAAR are limited to 8th grade.	A – The district assessment plan for 6th - 8th science is under development and the SLT plans to include strategies for assessing student learning with a variety of assessment types aligned to the district's science vision and designed for different purposes. However, assessments that prepare students to meet or exceed expectations on the science STAAR are not included.	A – The district does not plan to assess student learning in science with a variety of assessment types.
<b>B</b> – High quality <b>formative and summative</b> <b>assessments</b> aligned to the new science TEKS and designed to reflect the district's science vision (phenomena/problem driven; using all three components of science) <b>are embedded in the</b> <b>curriculum</b> . These can include both assessments from the curriculum developer and assessments developed or adapted by the district. <i>Ties to domain 3<u>High Quality Instructional Materials</u></i>	<b>B</b> – Formative and summative assessments aligned to the new science TEKS are <b>embedded in the curriculum but require</b> <b>additions or revisions</b> to reflect the district's science vision (phenomena/problem driven; using all three components of science). A system for evaluating, making, and vetting the needed revisions is in place and being implemented.	<b>B</b> – Either formative or summative assessments aligned to the new science TEKS and the district's science vision are not embedded in the curriculum but a system for producing and vetting the missing assessments is being developed.	<b>B</b> – Neither formative nor summative assessments aligned to the new science TEKS are embedded in the curriculum and a system to produce and vet them is not determined.
C – A system is in place within the district for future curriculum-embedded assessments to evaluate, vet, and make any needed adjustments to ensure the assessments align to the district's vision for science and the science TEKS.	<b>C</b> – A system is under development by the SLT for future curriculum-embedded assessments to be evaluated, vetted, and any needed adjustments made to ensure the assessments align to the district's vision for science and the science TEKS.	C – The SLT plans to develop a system for future curriculum-embedded assessments to be evaluated, vetted, and any needed adjustments made to ensure the assessments align to the district's vision for science and the science TEKS.	C – The district does not plan to develop a system for evaluating, adjusting, and vetting future 6 - 8 science assessments.
D – All educators receive professional learning that prepares them to use formative assessment data related to all three components of science (core content, SEPs, and RTCs) to monitor and inform instructional activities and provide individualized feedback to students. NOTE: Ties to domain 2, <u>Professional Learning</u>	D – At least 50% of educators receive professional learning that prepares them to use formative assessment data related to all three components of science (core content, SEPs, and RTCs) to monitor and inform instructional activities and provide individualized feedback to students.	D – Fewer than 50% of educators receive professional learning that prepares them to use formative assessment data related to all three components of science (core content, SEPs, and RTCs) to monitor and inform instructional activities and provide individualized feedback to students.	D – The district does not support educator professional learning related to formative assessment in 6th - 8th science.
E – The district assessment plan for 6th - 8th science specifies strategies to ensure coherence of the assessment system, including outlining the frequency and timeline for administration of	E – The district assessment plan for 6th - 8th science outlines the frequency and timeline for administration of summative assessments but does not address assessment system	E – The district is developing a plan to include science summative assessments but does not plan to outline the frequency and timeline for summative assessments and/or	E – The district does not have a plan for s science summative assessments.



summative assessments to ensure that students and teachers are not overburdened.	coherence.	address assessment system coherence.	
F – The district assessment plan for 6th - 8th science specifies adequate time and support for data analysis and interpretation, including student work samples.	F – The district assessment plan for 6th - 8th science specifies support for data analysis and interpretation, including analysis of student work samples, but the time allotted is not adequate for productive analysis	F –The district plans to include analysis and interpretation of student assessment data in the district action plan but does not plan to specify the amount of time AND/OR does not include analysis of student work samples.	F – The district does not have a specified plan to analyze and interpret student assessment data in 6th - 8th science.
<b>G</b> – The district assessment plan for 6th - 8th science specifies strategies for using assessment results, including from student work samples, to continuously inform and adjust the district science program. NOTE: Ties to domain 2, <u>Professional Learning</u>	G – The district assessment plan for 6th - 8th science states that assessment results should be used to continuously inform and adjust the district science program but specific strategies are not included OR student work samples are not listed as part of the assessment results used.	G – The SLT intends to include the use of assessment results to inform and adjust the district science program in the district assessment plan but has not specified strategies or named student work samples as part of the assessment results to be used.	G – The district does not plan to inform or adjust the district science program based on assessment results.
H – The district assessment plan for 6th - 8th science ensures that all stakeholders receive clear, targeted, and timely communications about the purpose and intended use of all assessments. NOTE: Ties to domain 1 <u>Shared Leadership: Science</u> <u>Leadership Teams</u>	H – The district assessment plan for 6th - 8th science ensures that all stakeholders receive clear, targeted, and timely communications that are limited to the purpose and intended use of district benchmark or EOY assessments for science.	H – The district assessment plan for 6th - 8th science provides for public (non-targeted) communication about assessments that is unclear AND/OR does not describe both the purpose and intent of science assessments.	H – The district does not provide public or targeted communication about the purpose and intent of science assessments
Sustaining	Developing	Introducing	Not Evident
Evidence of Implementation from –			
District Survey:			
Focus Groups:			

**5 – Adequate and Sustained Support for Science** To be sustainable, science education systems need adequate funding; supportive policies and practices; and the support of partners within the community, including parents and local organizations.

Sustaining	Developing	Introducing	Not Evident
A – The district has identified and acquired sufficient infrastructure and funding to accomplish the transition to the instructional model and new curriculum and to sustain continued growth and development of leaders, teachers, and students.	A – The district action plan includes strategies for identifying and acquiring sufficient infrastructure and funding to accomplish the transition to the instructional model and new curriculum and to sustain continued growth and development of leaders, teachers, and students.	A – The district action plan is under development but the SLT plans to include strategies for identifying and acquiring sufficient infrastructure and funding to accomplish the transition to the instructional model and new curriculum and to sustain continued growth and development of leaders, teachers, and students	A – No plans exist to identify and acquire sufficient infrastructure or funding to support the transformation of science education.
B – District policies have been analyzed and determined that they provide sufficient time and support (staff, equipment, course sequencing, etc.) for all students to reach all 6th - 8th science standards	B – District policies have been analyzed and determined to be a barrier to the science program in at least one area (staff, equipment, course sequencing, etc.) preventing some students from reaching all 6th - 8th science standards.	B – District policies have been analyzed and determined to be a barrier to the science program in several areas (staff, equipment, course sequencing, etc.) preventing some students from reaching all 6th - 8th science standards.	<b>B</b> – <b>District policies have not been analyzed</b> to determine their effect on the science program or their impact.
C –All the supports identified in the district plan for science education are fully implemented or in the process of being implemented including: <ul> <li>Curriculum, assessments and other instructional resources</li> <li>Professional learning for leaders and teachers</li> <li>Staffing at the school and district level</li> <li>Adequate time for science instruction</li> <li>Course sequencing</li> <li>Equipment and materials</li> <li>Community partnerships</li> </ul> NOTE: Ties to domain 2 <u>Professional Learning</u> ; domain 3 <u>High Quality Instructional Materials</u> ; and domain 4 <u>High Quality Assessments</u>	<ul> <li>C – More than half of the supports identified in the district plan for science education are fully implemented or in the process of being implemented including: <ul> <li>Curriculum, assessments and other instructional resources</li> <li>Professional learning for leaders and teachers</li> <li>Staffing at the school and district level</li> <li>Adequate time for science instruction</li> <li>Course sequencing</li> <li>Equipment and materials</li> <li>Community partnerships</li> </ul> </li> </ul>	C – The district plan for science education is under development but, through the current state analysis, the SLT has identified some supports that are fully implemented or in the process of being implemented.	C – A district plan for science education does not exist OR the existing plan does not include specified supports for the science program.
Sustaining	Developing	Introducing	Not Evident
Evidence of Implementation from –			
District Survey:			



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Focus Groups:	
Other:	

### 6 – Effective Science Instruction: Implementation and Monitoring

Leaders and educators who have a deep understanding of three dimensional, phenomena-driven science learning and the research-based instructional strategies that support it are better able to formulate and put into practice a long-term plan that promotes, supports, and sustains the transformation of science education.

Sustaining	Developing	Introducing	Not Evident
A – The district plan for science education details the process, timeline, and monitoring systems for implementing three-dimensional, phenomena-driven science instruction and the research-based strategies that support it. The Plan is being fully implemented in all 6th - 8th science classrooms throughout the district. NOTE: Ties to domain 2 <u>Professional Learning</u> : domain 3 <u>High Quality Instructional Materials</u> ; and domain 4 <u>High Quality Assessments</u>	A – The district plan for science education details the process, timeline, and monitoring systems for implementing three-dimensional, phenomena-driven science instruction and the research-based strategies that support it. The plan is being piloted or implemented in some 6th - 8th science classrooms in the district.	A – The SLT plans to include details in the district's plan for science education related to the process, timeline, and monitoring systems for implementing three-dimensional, phenomena-driven science instruction and the research-based strategies that support it	A – A district plan for science education does not exist OR the existing plan does not detail the process, timeline, and monitoring systems for implementing three-dimensional, phenomena-driven science instruction.
<b>B</b> – The district's action plan <b>outlines the</b> <b>frequency and timeline of classroom</b> <b>observations</b> to gauge progress toward the identified focus areas and the plan is being <b>executed with fidelity.</b>	<b>B</b> – The district's action plan <b>includes</b> <b>observations of science classrooms</b> to gauge progress toward the identified focus areas <b>but</b> <b>the frequency or timeline are not defined</b> .	B – The district's action plan is under development but the SLT plans to include details related to the frequency and timeline of science classroom observations.	B – Plans do not exist to include science classroom observations in the district's action plan.
C – Science classroom observations throughout the district are conducted using a common tool – the <u>TxCSI 6th - 8th Science</u> <u>Instruction Look Fors Guide</u> – or a similar tool agreed upon by the SLT and TxCSI team.	C – Observations are conducted using a common tool – the TxCSI 6th - 8th Science Instruction Look Fors Guide – or a similar tool agreed upon by the SLT and TxCSI team in at least 50% of science classrooms in the district.	C – Observations are conducted using a common tool – the TxCSI 6th - 8th Science Instruction Look Fors Guide – or a similar tool agreed upon by the SLT and TxCSI team in fewer than 50% of science classrooms in the district	C – No common tool designed specifically for science classroom observations is used.
D – All classroom observers have a deep and common understanding of the new vision of science education and the features of the district classroom observation tool. NOTE: Ties to domain 2 <u>Professional Learning</u>	D – All classroom observers are familiar with the features of the district science classroom observation tool but might not have a common understanding of the new vision of science education.	D – Some of the administrators and educators tasked with conducting classroom observations are familiar with the features of the district classroom observation tool, but others are not familiar, OR do not have a common understanding of the new vision of science education.	D – Administrators and educators tasked with conducting observations have varied perceptions and understandings of what to look for in science classrooms.
E – Quantitative and qualitative data from classroom observations are consistently used to help define needs and gauge progress towards effective implementation and monitoring of science instruction as detailed	E – Quantitative and qualitative data from classroom observations are sometimes used to help define needs and gauge progress towards effective implementation and monitoring of science instruction as detailed	E – Quantitative and qualitative data from classroom observations are rarely used to help define needs and gauge progress towards effective implementation and monitoring of science instruction as detailed in the district's	E – Quantitative and qualitative data from classroom observations are not collected OR not considered in defining instructional needs.



in the district's vision and action plan.	in the district's vision and action plan.	vision and action plan.	
Sustaining	Developing	Introducing	Not Evident
Evidence of Implementation from –			
District Survey:			
Focus Groups:			
Observation Data:			
Other:			

Overall Summary of Current State: