

## Texas Resource Review Response Public Comments on the K-8 and High School Second Draft Science Quality Rubrics (Updated 05/10/2023)

This chart provides a summary of specific feedback received from stakeholders on grades K–8 and High School Science third draft quality rubrics and TEA’s response.

Written into statute in 2017 (Texas Education Code §§31.081 and 31.082), TEA will conduct an independent analysis of instructional materials to evaluate their quality. The resulting reviews will provide local education agencies (LEAs) across Texas with free, clear, and user-friendly information about the quality of materials, which LEAs may choose to use as part of their local review and adoption processes.

Indicator	Summarized Comment	TEA Response to Feedback and Rationale
<b>2.1</b>	In guidance bullet 1 (K-8 and 9-12), there be a change in the order of "practice, develop, and demonstrate" to read "develop, practice, and demonstrate." The act to "develop" a skill in instruction happens before it is "practiced."	Refinement and copyediting.
<b>2.1</b>	In guidance bullet 4 (K-8 and 9-12), add "an" between the words, "develop" and "understanding."	Copyediting.
<b>3.1</b>	In guidance bullet 3 (K-8), "grade level-specific" replaces "course-specific" to appropriately fit grade requirements.	Refinement and copyediting.
<b>3.1</b>	In guidance bullet 4 (K-8) "grade level" replaces "course" to appropriately fit grade requirements.	Refinement and copyediting.
<b>3.2</b>	In the indicator language (K-8 and 9-12), "coherence knowledge" should be "knowledge coherence."	Refinement and copyediting.
<b>3.2</b>	In guidance bullet 2 (K-8 and 9-12), add a comma after concepts and add "the" after support. Also, change grade-level to course-level in the high school rubric to appropriate fit course requirements.	Refinement and copyediting.
<b>5.1</b>	In guidance bullet 3 (K-8), remove the hyphen between grade level. A hyphen is included when the word is used as an adjective. Since this word is in noun form, the hyphen is not needed.	Copyediting.
<b>5.1</b>	In guidance bullet 4 (K-8 and 9-12), include "and" with "or" to read as "and/or" because not all students use speech as their method of communication.	Refinement and copyediting.
<b>5.1</b>	In guidance bullet 1 (K-8 and 9-12), recommend removing "including correct, incorrect, and partially correct student	Refinement.

	responses” from the guidance bullet for the guidance bullet to read, “Materials provide teacher guidance on anticipating student responses and the use of questioning to depend on student thinking.” Publisher materials will showcase correct exemplars responses; however, including “incorrect and partially correct” would <u>require</u> that publishers meet this part of the indicator.	
<b>6.1</b>	In guidance bullet 1 (K-8 and 9-12), recommend removing “that include formal and informal opportunities” because formal is redundant in this guidance bullet since it is included in formative and summative assessments; informal is more of an instructional strategy. Informal opportunities were covered in 5.1 and 5.2 (students sharing thinking), although they were not named such.	Refinement.
<b>6.1</b>	In guidance bullet 2 (K-8), this word should be “indicate” due to subject-verb agreement; the guidance bullet is accurately written in the 9-12 rubric.	Refinement and copyediting.
<b>6.1 and 6.2</b>	In K-8, delete the extra blank bullet after the 4 <sup>th</sup> guidance bullet.	Copyediting.
<b>6.2</b>	In guidance bullet 2 (K-8 and 9-12), recommend changing “teachers” to “teachers’ analysis of assessment data.” The indicator uses the language of “how to analyze” however, none of the guidance bullets include the analysis of assessment data which happens before teachers plan to respond to data.	Refinement and copyediting.
<b>7.2</b>	In guidance bullet 2 (K-8 and 9-12), suggest adding “partners” to the, e.g., list to show various groupings.	Refinement.
<b>7.2</b>	In guidance bullet 3 (K-8 and 9-12), examples should read “(e.g., modeled, guided, collaborative, independent).” Suggest adding “modeled” and reorganizing the other types of practices.	Refinement.
<b>7.3</b>	In indicator (K-8 and 9-12), suggest a change to the order of language domains listed and suggest the use of the term “emergent bilingual students.” New language: Materials include listening, speaking, reading, and writing supports (remove comma) to assist emergent bilingual students in meeting grade-level content expectations.	Refinement.
<b>7.4</b>	In guidance bullet 3 (K-8 and 9-12), suggest the word “contain” be replaced with “include” to better fit the context.	Refinement.

<b>8.1</b>	In guidance bullet 2, suggest rewording the guidance bullet for clarity: Materials provide clear teacher guidance for facilitating student-made connections across core concepts, scientific and engineering practices, and recurring themes and concepts.	Refinement.
<b>8.2</b>	In guidance bullet 2 (K-8), change explains to explain for subject-verb agreement; remove hyphen in grade-level (change to grade level) for the noun form.	Refinement.
<b>8.2</b>	In guidance bullet 4 (K-8 and 9-12), insert a comma before "including."	Copyediting.
<b>9.1</b>	In guidance bullet 1 (K-8 and 9-12), the wording appeared broad and not aligned with the intent of the indicator. Reworded version adds word "technical" to state: "Materials include digital components that are free of technical errors." Technical is to be defined as related to technology.	Refinement.
<b>9.2</b>	In guidance bullet 1 (K-8 and 9-12), recommend removing "without being distracting or chaotic" because it overlaps with 9.1 GB 1 visual design (...supports and does not distract from student learning). Additionally, this would preserve the focus on learning and engagement and prevent duplicate evidence.	Refinement.
<b>9.2</b>	Recommend removing the comma. Was it left over from the K-8 rubric, which includes a list of recurring themes? No comma is needed to separate the SEPs and course-specific content.	Refinement and copyediting.
<b>9.3</b>	In guidance bullet 1 (K-8), grade level should not be hyphenated because it is a noun, not a modifier.	Copyediting.
<b>9.3</b>	In guidance bullet 1 (K-8), there is a discrepancy between the use of "and" in the indicator and the use of "or" in the guidance bullet. The use of "and" will replace "or."	Refinement and copyediting.
<b>9.3</b>	In guidance bullet 3 (K-8 and 9-12), recommend adding "with digital technology and online components" to the end of the guidance bullet language to clearly distinguish this GB from 7.4, where online and digital materials are referenced as well.	Refinement.

## Texas Resource Review Response Public Comments on the K-8 and High School Second Draft Science Quality Rubrics (Updated 10/28/2022)

This chart provides a summary of specific feedback received from stakeholders on grades K–8 and High School Science second draft quality rubrics and TEA’s response.

Written into statute in 2017 (Texas Education Code §§31.081 and 31.082), TEA will conduct an independent analysis of instructional materials to evaluate their quality. The resulting reviews will provide local education agencies (LEAs) across Texas with free, clear, and user-friendly information about the quality of materials, which LEAs may choose to use as part of their local review and adoption processes.

Indicator	Summarized Comment	TEA Response to Feedback and Rationale
<b>2.1</b>	In the third bullet, will "sufficient opportunities" be quantified for the reviewers so they can consistently and reliably score this indicator? How much is considered "sufficient?"	TEA will add a glossary to the rubric that defines frequency terms. The glossary will be available by the end of the year.
<b>2.1</b>	In the fourth point, I would like to see sufficient opportunities better defined to be aligned with the TEKS time and I would like the rubric to include wording around students designing their own investigations.	<p>TEA will add a glossary to the rubric that defines frequency terms. The glossary will be available by the end of the year.</p> <p>TEA made the following changes for clarity and alignment to the TEKS:</p> <p>K–8: Materials include sufficient opportunities, as outlined in the TEKS, for students to ask questions and plan and conduct classroom, laboratory, and field investigations and to engage in problem-solving to make connections across disciplines and develop understanding of science concepts.</p> <p>9–12: Materials include sufficient opportunities, as outlined in the TEKS, for students to ask questions and plan and conduct classroom, laboratory, and field investigations and to engage in problem-solving to develop understanding of science concepts.</p>

Indicator	Summarized Comment	TEA Response to Feedback and Rationale
<b>2.2</b>	The first two guidance bullets appear to be redundant. Not sure how "construct, build, and develop" the three dimensions as outlined in the TEKS is different from "develop and apply" the three dimensions as outlined in the TEKS.	<p>TEA combined the first and second bullets for clarity.</p> <p>K–8 Combined to read: Materials embed phenomena and problems across lessons to support students to in constructing, building, and developing knowledge through authentic application and performance of scientific and engineering practices, recurring themes and concepts, and grade-level content as outlined in the TEKS.</p> <p>9–12 Combined to read: Materials embed phenomena and problems across lessons to support students to in constructing, building, and developing knowledge through authentic application and performance of scientific and engineering practices and grade-level content as outlined in the TEKS.</p>
<b>2.2</b>	In the first bullet: the word "engineering" is omitted, although this is probably not consequential given that it is elsewhere in this indicator.	<p>TEA removed the specificity of "engineering problems" from the indicator statement and guidance bullets to be consistent with the TEKS. In K–12, the TEKS consistently use "engineering" to define the practices, not the problems.</p> <p>K–12 rubrics were modified to read: Materials anchor the learning in phenomena and problems as the key lever for driving learning and student mastery of disciplinary knowledge and skills.</p>
<b>3.2</b>	The scoring box is missing its 0/3/6 numbers.	TEA added the appropriate scoring box 0/3/6.
<b>3.2</b>	In the first bullet: Please define your usage of “vertical alignment” and clarify expectations in the context of high school science.	<p>TEA added clarifying language</p> <p>9–12 rubric was changed to read: Materials support teachers in understanding the vertical alignment of course-appropriate prior knowledge and skills guiding the development of course-level content and scientific and engineering practices</p>

Indicator	Summarized Comment	TEA Response to Feedback and Rationale
<b>4.1 and 4.5</b>	In the third bullet (4.1) first and fourth bullets (5.1) appear redundant. All three are about using evidence. Two of the three specify "in scientific writing" or "written" as being included. It would seem better to consolidate these, especially so they are not split across different sections, to prevent "double jeopardy."	TEA made changes to 4.1 for clarification:  K–12 rubrics were changed to read: Materials provide multiple opportunities for students to engage in various written and graphic modes of communication to support students in developing and displaying understanding of scientific concepts.  No changes were made to indicator 5.1 because the first and third bullets refer to evidence being used in different stages of the scientific process.
<b>4.1</b>	I would like to see an indicator that captures whether the resource has labs where students are planning the procedures for investigations (guided inquiry), or whether all the labs in the resource are written at the confirmation inquiry level. (The 1.A and 1.B of the high school course TEKS)	TEA did not make a change because a change was made to indicator 2.1 to address concern.
<b>5.2</b>	In the first bullet: please clarify “guidance on anticipating student responses”; should this be “anticipated student responses”, in that guidance is expected for likely student responses?	TEA did not make a change because the guidance bullet is related to the teacher's actions not the students. Guidance on student responses is covered in indicator 6.2.
<b>6.3</b>	With STAAR changing to use a variety of item types, I would like to see the publisher's assessments follow suit with offering unit/chapter assessments that incorporate a variety of ways for students to demonstrate their knowledge. The pre-made assessments in our previous and current resources in our district have only provided multiple choice tests.	The rubric addresses the use of different variety of assessments in indicator 6.1 in bullet one.
<b>7.1</b>	In the third bullet point, there are many competing interpretations about what "acceleration" means, and whether "acceleration" is appropriate for all students, as the guidance states. It would be helpful if the intent of this guidance was clarified.	TEA will add a glossary to the rubric that defines frequency terms. The glossary will be available by the end of the year.
<b>8.1</b>	In the first bullet specify what the “scope and sequence” should show in the high school context. A “scope and sequence” is usually used to show year-to-year progression.	TEA made the change for clarification.  9–12 rubric was updated to read: Materials are accompanied by a TEKS-aligned scope and sequence outlining the order in which knowledge and skills are taught and built in the course materials.

Indicator	Summarized Comment	TEA Response to Feedback and Rationale
<b>8.2</b>	In the second bullet "cross-content standards" should be clarified or specified.	TEA will add a glossary to the rubric that defines frequency terms. The glossary will be available by the end of the year and "cross-content standards" will be explained further in the evidence guides.
<b>9.2</b>	The words distracting or chaotic is subjective. Perhaps provide examples and non-examples.	TEA did not make a change. This will be explained further using examples and non-examples provided in the evidence guides.
<b>10.1</b>	Provide the TRR definition of the devices in the Device Compatibility section. Define eBook	TEA did not make a change. TEA will provide guidance to publishers regarding how to complete the forms in section 10 in the publisher handbook.
<b>10.1</b>	Define how student data is purged after use by the product. If yes, indicate how and when below. Are data elements encrypted at rest (i.e. in a database or file system) If yes, specify which data elements are encrypted below IMS CASE.	TEA did not make a change. TEA will provide guidance to publishers regarding how to complete the forms in section 10 in the publisher handbook.
<b>None (General Comment)</b>	I do not see anything specifically about Tier 1-Tier 3 strategies. I do not see anything specifically discussing differentiation. I do not see anything about vocabulary use or strategies.	TEA did not make a change. Vocabulary is listed in indicators 5.1 and 6.2, differentiation is addressed in indicator 6.2, and scaffolding is listed several times in the document.
<b>None (General Comment)</b>	The description associated with Productive Struggle: the phrase 'the heavy thinking' should not be hyphenated. I also feel like this phrase is too colloquial for such a document. Recommend something like "applying disciplinary practices to engage in deep thinking."	TEA made an updated the description for Productive Struggle to ensure TEKS alignment and improve clarity.  K–12 rubrics were updated to read: Materials are designed to support students in applying disciplinary practices to engage in critical thinking and scientific decision-making.

## Texas Resource Review Response to K-8 and High School Science Quality Rubrics Public Comments 9/27/22

This chart provides a summary of specific feedback received from stakeholders on grades K–8 and High School Science quality rubric and TEA’s response.

Written into statute in 2017 (Texas Education Code §§31.081 and 31.082), TEA will conduct an independent analysis of instructional materials to evaluate their quality. The resulting reviews will provide local education agencies (LEAs) across Texas with free, clear, and user-friendly information about the quality of materials, which LEAs may choose to use as part of their local review and adoption processes.

Indicator	Summarized Comment	TEA Response to Feedback and Rationale
<b>General</b>	It would be helpful to include a glossary for frequency terms (e.g., consistently, multiple opportunities).	TEA will add a glossary to the rubric that defines frequency terms. The glossary will be available by the end of the year.
<b>Introduction</b>	On page 1, it may be helpful to include some clarification on the term "program," as this term could indicate more than just a resource under consideration for purchase.	The word “program” was replaced with “instructional materials” to improve clarity. We will define “instructional materials” in the glossary.
<b>Introduction</b>	On page 3, the terms Student TEKS and Teacher TEKS are unclear.	This data represents the percentage of TEKS that are covered in the student materials and the teacher materials. For clarification, TEA added “%” to the end of each label. The percentage of TEKS covered in the student and teacher materials will be included in the final TRR reports.



Indicator	Summarized Comment	TEA Response to Feedback and Rationale
<b>Section 1</b>	The rubric states, “to be eligible for adoption by the State Board of Education, instructional materials must meet at least 50% of the TEKS and 100% of the required ELPS in the components intended for student use and the components intended for teacher use” The materials should cover 100% of the TEKS.	<p>TEA did not make this change. Texas Education Code, Chapter 31, requires the SBOE to adopt materials that cover at least half of the TEKS. Districts must certify each year prior to accessing allotment funds that they have materials that cover 100% of the TEKS (<a href="#">TEC §31.0213</a>). That can be a single material for a given subject or a combination of materials. To raise the minimum threshold of TEKS coverage, the legislature would have to change the law.</p> <p>The actual TEKS percentage will be included in the Texas Resource Review report.</p>
<b>2.1</b>	When looking at the scientific and engineering practices language, that is what teachers associate with labs. I would like to see the word embedded and that students apply knowledge.	<p>TEA added the following bullet point</p> <p>K-8: Materials include sufficient opportunities for students to engage in classroom, laboratory, and field investigations and problem-solving to make connections across disciplines and develop understanding of science concepts.</p> <p>HS: Materials include sufficient opportunities for students to engage in classroom, laboratory, and field investigations and problem-solving to develop understanding of science concepts.</p>
<b>2.1</b>	The first guidance bullet seems redundant. My recommendation would be to keep the last three but not the first one.	The first bullet was deleted to avoid redundancy.
<b>2.1</b>	On the high school rubric, add course-level content as defined in the TEKS.	TEA made this change and edited the indicator by adding “as outlined in the TEKS.”

Indicator	Summarized Comment	TEA Response to Feedback and Rationale
<b>2.1</b>	"Recurring themes are not specifically identified as a standard in the HS courses so I don't feel it is appropriate to use that as criteria" [Comment applies to 9-12 rubric only.]	TEA deleted recurring themes throughout the high school rubric.
<b>2.2</b>	The first guidance bullet does not align with the indicator. It should read "phenomena AND engineering problems" vs. "phenomena OR problems."	The word "and" was added in the science indicator to be consistent with the TEKS.
<b>2.2</b>	Include "science problems" with "phenomena."	TEA did not make this change. In the indicator, phenomena refers to detectable events that are observed through the senses or technology and can be explained through scientific laws, ideas, principles, and theories, which would include science problems.
<b>2.2</b>	Can phenomena be narrowed down further by using "relevant" or "local" in the second guidance bullet?	Language was changed to read; "Materials are designed to include relevant phenomena..." and relevant phenomena will be further defined in the glossary to include connections to student's local context.
<b>3.1 and 3.2</b>	The bullet points appear to be redundant.	TEA condensed the three Science Indicators to two Science Indicators to avoid redundancy.
<b>3.2</b>	The use of the wording "intentional sequencing" is unclear.	Indicator 3.2 was removed and some of the guidance bullets were moved to indicator 3.1. The guidance bullet that originally contained "intentional sequencing" was changed to read, "Materials are intentionally sequenced to scaffold learning in a way that allows for increasingly deeper conceptual understanding." The focus of this guidance bullet is to provide guidance on the order in which content should be taught. Indicator 8.3 focuses on the guidance provided regarding the amount of time that should be spent on each lesson. TEA will add a glossary and include a definition of intentional sequencing.

Indicator	Summarized Comment	TEA Response to Feedback and Rationale
3.3	Suggest using “background knowledge” instead of “self-knowledge” to support teacher development in the first guidance bullet.	TEA made a change in the Science Guidance to replace “self-knowledge” with “teacher’s subject knowledge”
4.1	Consider the use of the term "persistence" in place of "productive struggle" or “connections in place of “sensemaking.”	TEA did not make this change. The terms will be defined in the glossary.
4.1	Consider adding language around support for scientific writing.	The support was added under Educator Supports.
4.1	In the fourth guidance bullet use “scientists or engineers” instead of “scientists and engineers” to not treat the terms a separate.	TEA did not make this change. The TEKS, at all grade levels, emphasize student participation in scientific and engineering practices. Changing the wording to “scientists or engineers” would imply that materials could do one or the other but do not have to do both.
5.1	"Hypotheses" would be a better term than "opinions."	Change was made to reflect suggestion, “Materials prompt students to use evidence to support their hypotheses and claims to align with scientific language.”
5.1	Consider edits to narrow down focus of student actions.	Change made to simplify language and focus on student actions, “Materials promote students' use of evidence to develop, communicate, and evaluate explanations and solutions”
5.1	Use "argumentation and discourse" and not “discussion” in the third guidance bullet.	Change made to include “argumentation and discourse” for clarity and alignment with the TEKS
5.1	Consider the word choice in the second guidance bullet to increase accountability for students to use vocabulary.	Language was changed from “strengthen” to “utilize” to increase student accountability.
5.1	Consider removing "using evidence" from the final bullet point due to redundancy.	TEA did not make a change. The TEKS specifically have "use evidence" with scientific and engineering practices.

Indicator	Summarized Comment	TEA Response to Feedback and Rationale
5.2	The first guidance bullet can be improved by adding teacher guidance on anticipating both correct and incorrect student responses.	TEA did not make a change. Both correct and incorrect student responses are implied with “student responses”
5.2	Provide consistent feedback for educators around providing exemplars of writing to best support students in skill building.	Added as a bullet point, “Materials provide teacher guidance on preparing for student discourse and supporting students in using evidence to written and verbal claims”
5.2	Suggestion changing "anticipating" to "anticipation of" and "their" to "student" In the first guidance bullet.	Changes were made for clarity. The guidance now reads, “Materials provide teacher guidance on the anticipation of student responses and the use of questions to deepen student thinking.”
5.2	Clarify the term heavy thinking.	TEA updated the indicator to read, “Materials provide teacher guidance to support student reasoning and communication skills.”
6.1	“Diagnostic tools” sounds like a technical word to evaluate student learning and suggest common descriptors like informal, formal, or summative assessment.	The indicator and associated guidance bullets were updated to replace diagnostic tools with assessment tools. “Additionally, the first guidance bullet was updated to read, “Materials include a range of diagnostic, formative, and summative assessments that include formal and informal opportunities to assess student learning in a variety of formats.”
6.2	Consider adding “planning for intervention and extension” in the third guidance bullet	TEA made this change.
6.3	Consider replacing the word "meaningful" with "relevant" in the third guidance bullet point.	TEA made this change.
6.3	The fourth guidance bullet is unclear.	TEA changed the guidance bullet to read, “Materials include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned to learning goals.”

Indicator	Summarized Comment	TEA Response to Feedback and Rationale
<b>6.3</b>	Remove “well written” to reduce subjectivity in the first guidance bullet.	TEA made this change and removed “well written.”
<b>7.1</b>	Clarity is needed in the second guidance bullet.	TEA deleted the second guidance bullet because it was duplicative of the third guidance bullet.
<b>7.2</b>	Consider changing “developmentally” appropriate to “scientifically appropriate” in the first guidance bullet.	TEA did not make this change. This language speaks to where the students are cognitively. The scientific instructional approaches were addressed in Sections 2 through 5.
<b>7.4</b>	The first guidance bullet point cannot be evaluated.	TEA deleted the guidance bullet.
<b>8.1</b>	The first guidance bullet is too large to evaluate.	TEA deleted the second part of the bullet point, however moved the first part to 3.1.
<b>8.3</b>	Suggest moving the third guidance bullet to the top and re-write the third bullet point, “Materials support scheduling considerations and include guidance and recommendations on required time for lessons and activities.”	TEA made both changes.
<b>Anchor Statement 9</b>	Consider changing the anchor statement to read, “Materials are intentionally designed and engage and support student learning with the integration of digital technology.”	TEA did not make this change on the Anchor Statement because the suggestion does not match the intent of the Design Features section of the rubric; however, Science Indicator 9.2 was updated to match the suggestion provided.
<b>9.1</b>	Consider adding a bullet point for materials to be age appropriate.	TEA modified the second guidance bullet to include “age appropriate.” The guidance now reads, “Materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting.”
<b>9.2</b>	Consider adding an additional guidance bullet that reads, “Materials integrate with a variety of Learning Management Systems.”	TEA added a fourth guidance bullet that reads, “Materials integrate digital technology that is compatible with a variety of learning management systems.”