



Multilingual Learner Supports
Evidence Guide v2.0

**Science
High School**

Criterion 1: MLLs' Full and Complete Participation in Grade-Level Content

Necessary components of curriculum to allow MLLs to fully participate in grade-level content, integrated into content-area tools in key places crucial to content. The following MLL indicators are connected to the content indicators in the High School Science tool focusing on Phenomena and Problems and the Three Dimensions (SEPs, DCIs, and CCCs). The evidence guide for each High School Science indicator is shown alongside the embedded MLL indicator.

HS Science Criterion 1.1	Phenomena and Problems Drive Learning: Materials leverage science phenomena and engineering problems in the context of driving learning and student performance.
Indicator 1a	<p>1a Materials are designed to include both phenomena and problems.</p> <p>1a.MLL-1 Materials provide support for MLLs' full and complete participation in grade-level learning of phenomena as included in the materials.</p> <p>1a.MLL-2 Materials provide support for MLLs' full and complete participation in grade-level learning of problems as included in the materials.</p>

1a Scoring:		
<p>4 points</p> <ul style="list-style-type: none"> Materials consistently provide learning opportunities that include phenomena or problems. 	<p>2 points</p> <ul style="list-style-type: none"> Materials provide learning opportunities that include phenomena or problems, but inconsistently. 	<p>0 points</p> <ul style="list-style-type: none"> Materials provide few to no learning opportunities that include phenomena. OR Materials provide few to no learning opportunities that include problems.
1a.MLL-1 Scoring		
<p>2 points</p> <ul style="list-style-type: none"> Materials consistently provide strategies and supports for MLLs 	<p>1 point</p> <ul style="list-style-type: none"> Materials provide strategies and supports 	<p>0 points</p> <ul style="list-style-type: none"> Materials do not provide strategies and supports for MLLs

to fully and completely participate in grade-level learning of phenomena as included in the materials.	<p>for MLLs to participate in grade-level learning of phenomena as included in the materials, but these supports do not consistently provide for full and complete participation by MLL students.</p> <p>OR</p> <ul style="list-style-type: none"> Materials provide some strategies and supports for MLLs to participate in grade-level learning of phenomena as included in the materials, but they are not employed consistently throughout the program. 	to fully and completely participate in grade-level learning of phenomena as included in the materials.
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1a.MLL-2 Scoring

<p>2 points</p> <ul style="list-style-type: none"> Materials consistently provide strategies and supports for MLLs to fully and completely participate in grade-level learning of problems as included in the materials. 	<p>1 point</p> <ul style="list-style-type: none"> Materials provide strategies and supports for MLLs to participate in grade-level learning of problems as included in the materials, but these supports do not consistently provide for full and complete participation by MLL students. OR Materials provide some strategies and supports for MLLs to participate in grade-level learning of problems as included in the materials, but they are not employed consistently throughout the program. 	<p>0 points</p> <ul style="list-style-type: none"> Materials do not provide strategies and supports for MLLs to fully and completely participate in grade level learning of problems as included in the materials.
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About this indicator:

What is the purpose of this Indicator?

This indicator

- examines the presence, structure, function, and use of phenomena and problems in materials.
- sets the stage for review of indicators 1b, 1c, and 1d, as those indicators are dependent on identification of phenomena and/or problems.

The purpose of 1a.MLL-1 and 1a.MLL-2

Complex tasks require deliberate language supports that maintain the cognitive demand by amplifying—rather than simplifying—the content, practices, and associated language. Language supports should “scaffold up” to provide appropriate assistance for learners. Supports that maintain the rigor of the tasks and prioritize peer interaction create conditions for new learning, and provide opportunities for teachers to observe, understand, and respond to learners’ current knowledge.

Research or Standards connection:

For 1a:

Read information for Gateway 1, Criterion 1.

“CONCLUSION 2: Teachers can use students’ curiosity to motivate learning by choosing phenomena and design challenges that are interesting and engaging to students, including those that are locally and/or culturally relevant. Science investigation and engineering design give middle and high school students opportunities to engage in the wider world in new ways by providing agency for them to develop questions and establish the direction for their own learning experiences.” (Science and Engineering for Grades 6-12: Investigation and Design at the Center, p. 4)

For 1a.MLL-1 and 1a.MLL-2:

- Bailey, A. L., Butler, F. A., Stevens, R., & Lord, C. (2007). Further specifying the language demands of school. In A.L. Bailey (Ed.), *The language demands of school: Putting academic English to the test* (pp. 103-156)
- ELSF Science Guidelines: <https://www.elsuccessforum.org/science-guidelines>
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Walqui, A., & Bunch, G. C. (2019). *Amplifying the curriculum: Designing quality learning opportunities for English learners*. Teachers College Press.
- WIDA ELD Framework: <https://wida.wisc.edu/teach/standards/eld/2020>
- WIDA, June 2023. *Focus Bulletin: Words for Science Learning: Which Words and When?*.
<https://wida.wisc.edu/sites/default/files/resource/FocusBulletin-Words-for-Science-Learning.pdf>

Resources:

- [Next Generation Science Standards \(NGSS\)](#)
- [A Framework for K-12 Science Education](#)
- [Science and Engineering for Grades 6-12: Investigation and Design at the Center](#)

- [STEM Teaching Tools Practice Brief 71](#)

Indicator 1a Guiding Question:

Are the materials designed to include both phenomena and problems?

Evidence Collection

For 1a:

Locations to review:

- Review all learning sequences and learning opportunities where the materials claim the presence of a phenomenon or problem in both student and teacher materials across the course.

Record evidence:

- Describe where students are presented with a specific, observable event that can be explained by science content as an introduction to a learning opportunity or sequence (phenomenon).
- Describe where students are presented with a challenge or situation that people want to change (problem) or a solution to optimize (design challenge) as an introduction to a learning opportunity or sequence.
- Determine if students return to the phenomenon, problem, or design challenge in the learning opportunity or sequence after its initial introduction.
- Determine if the phenomenon is unexplained or if the materials immediately provide students with an explanation.
- Determine if the materials provide context for the problem or design challenge and if students understand why they are solving the problem or design challenge.

For 1a.MLL-1 and 1a.MLL-2

- Describe how the materials provide strategies, appropriate support, and accommodations that will foster MLL students' regular and active participation. Include opportunities for speaking, listening, reading, and writing to develop practices and knowledge of the subject matter. This may include scaffolding, but should scaffold up towards grade-level work.
- Describe content-specific or lesson-specific strategies and/or materials provided for supporting MLL students engaging in grade-level/grade-band instruction. There must be more than a statement at the beginning of the chapter or lesson that is generic or states that the same strategy could be used with every lesson.
 - Describe how specific supports and/or routines allow MLL students to access grade-level instruction/content and negotiate meaning.
 - Describe how language supports and scaffolds are aligned to academic tasks and address the four domains of language (speaking, listening, reading, and writing).
 - Describe how language supports and scaffolds support MLL students' understanding of entire tasks: what the task is asking them to do, their full participation in the task (including navigating and negotiating resources), and their demonstration of understanding through what the task asks them to produce.
 - Describe how language supports, strategies, and resources allow all MLL students including SIFE/SLIFE (Students with Limited or Interrupted Formal Education), those literate in their primary language, long-term MLLs, and those at varying levels of English proficiency to attain grade-level standards.

- Describe ways in which materials amplify rather than simplify English language structures and forms.
- Describe targeted opportunities for MLL students to use and develop language.
- Describe ways in which the materials focus supports around language functions and the disciplinary practices they are intertwined with, moving beyond concentrating solely on vocabulary.
- Describe ways in which the materials encourage MLL students to use interdisciplinary words and phrases that can be used across subjects, as well as content-area words and phrases specific to the discipline being taught.
- Describe opportunities for MLLs to engage in structured academic discourse with teachers and peers, and how these interactions build conceptual understandings and disciplinary language use.
- Describe ways in which the materials support MLL students' meaning-making of vocabulary in context.
- Describe ways in which the materials provide activities to help distinguish between common everyday meanings of language and content-specific meanings (ex: *gas = makes a car run or a state of matter*).

Cluster Meeting

During the cluster meeting:

For 1a:

Discuss and answer the following questions to support consensus scoring conversations:

- Which instances of phenomena, problems, and design challenges are returned to and not only used as an introduction?
- Are phenomena, problems, and design challenges present at the learning opportunity or learning sequence level, or a combination of the two?
- Which instances of problems and design challenges provide students the opportunity to develop multiple solutions? Which instances only provide students with a single solution or design to build?
- How many phenomena, problems, and design challenges are present in the materials?

For 1a.MLL-1 and 1a.MLL-2

- Do the materials include guidance for teachers in supporting MLLs in learning opportunities with phenomenon and problems in meaningful ways?
- Where and how do materials help teachers use supports while maintaining the cognitive demand of tasks?
- Where and how do materials support learners' understanding of tasks and concepts with the use of specific language resources?
- Where and how do the supports assist students in producing the language to demonstrate their understanding (language models and frames)?
- Do the supports oversimplify or water down the content?
- Do the materials provide language supports that enable students to have meaningful interactions through extended conversation to build understanding?

HS Science Criterion 1.2	Three-Dimensional Learning: Materials are designed for three-dimensional learning and assessment.
Indicator 1g	<p>1g. Materials consistently support meaningful student sensemaking with the three dimensions.</p> <p>1g.MLL-1 Materials provide support for MLLs’ full and complete participation in sensemaking of the Science and Engineering Practices.</p> <p>1g.MLL-2 Materials provide support for MLLs’ full and complete participation in sensemaking of Disciplinary Core Ideas.</p> <p>1g.MLL-3 Materials provide support for MLLs’ full and complete participation in sensemaking of Cross Cutting Concepts.</p>

1g Scoring:

<p>4 points</p> <ul style="list-style-type: none"> Materials are designed for the three dimensions to consistently and meaningfully support student sensemaking across the learning sequences. <p style="text-align: center;">AND</p> <ul style="list-style-type: none"> Materials consistently provide opportunities for students to iterate on their thinking as they engage in sensemaking. 	<p>2 points</p> <ul style="list-style-type: none"> Materials are designed for two dimensions to consistently and meaningfully support student sensemaking across the learning sequences. <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Materials are designed for the three dimensions to meaningfully support sensemaking across the learning sequences, but not consistently. <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Materials provide opportunities for students to iterate on their thinking as they engage in sensemaking, but not consistently. 	<p>0 points</p> <ul style="list-style-type: none"> Materials are designed to meaningfully support student sensemaking with two dimensions across the learning sequences, but not consistently. <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Materials do not provide opportunities for students to iterate on their thinking as they engage in sensemaking.
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1g.MLL-1 Scoring

<p>2 points</p> <ul style="list-style-type: none"> Materials consistently provide strategies and supports for MLLs to fully and completely participate in grade-level learning of phenomena as included in the materials. 	<p>1 point</p> <ul style="list-style-type: none"> Materials provide strategies and supports for MLLs to participate in sensemaking of Science and Engineering Practices, but these supports do not consistently provide for full and complete participation by MLL students. <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Materials provide some strategies and supports for MLLs to participate in sensemaking of Science and Engineering Practices, but they are not employed consistently throughout the program. 	<p>0 points</p> <ul style="list-style-type: none"> Materials do not provide strategies and supports for MLLs to fully and completely participate in sensemaking of Science and Engineering Practices.
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1g.MLL-2 Scoring

<p>2 points</p> <ul style="list-style-type: none"> Materials consistently provide strategies and supports for MLLs to fully and completely participate in sensemaking of Disciplinary Core Ideas. 	<p>1 point</p> <ul style="list-style-type: none"> Materials provide strategies and supports for MLLs to participate in sensemaking of Disciplinary Core Ideas, but these supports do not consistently provide for full and complete participation by MLL students. <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Materials provide some strategies and supports for MLLs to participate in sensemaking of Disciplinary Core Ideas, but they are not employed 	<p>0 points</p> <ul style="list-style-type: none"> Materials do not provide strategies and supports for MLLs to fully and completely participate in sensemaking of Disciplinary Core Ideas.
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	consistently throughout the program.	
1g.MLL-3 Scoring		
2 points <ul style="list-style-type: none"> Materials consistently provide strategies and supports for MLLs to fully and completely participate in sensemaking of Cross Cutting Concepts. 	1 point <ul style="list-style-type: none"> Materials provide strategies and supports for MLLs to participate in sensemaking of Cross Cutting Concepts, but these supports do not consistently provide for full and complete participation by MLL students. <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Materials provide some strategies and supports for MLLs to participate in sensemaking of Cross Cutting Concepts, but they are not employed consistently throughout the program. 	0 points <ul style="list-style-type: none"> Materials do not provide strategies and supports for MLLs to fully and completely participate in sensemaking of Cross Cutting Concepts.

About this indicator:

What is the purpose of this Indicator?

1g

- supports the Next Generation Science Standards (NGSS) innovation related to integration of the three dimensions in learning experiences to support sensemaking.

1g.MLL-1, 1g.MLL-2, and 1g.MLL-3

Complex tasks require deliberate language supports that maintain the cognitive demand by amplifying —rather than simplifying—the content, practices, and associated language. Language supports should “scaffold up” to provide appropriate assistance for learners. Supports that maintain the rigor of the tasks and prioritize peer interaction create conditions for new learning, and provide opportunities for teachers to observe, understand, and respond to learners’ current knowledge.

Research or Standards connection:

1g

“Each NGSS standard integrates one specific SEP, CCC, and DCI into a performance expectation that details what students should be proficient in by the end of instruction. In past standards the separation of skills and knowledge often led to an emphasis (in both instruction and assessment) on science concepts and an omission of inquiry and practices. It is important to note that the NGSS performance expectations do not specify or limit the intersection of the three dimensions

in classroom instruction. Multiple SEPs, CCCs, and DCIs that blend and work together in several contexts will be needed to help students build toward competency in the targeted performance expectations. (2015 Achieve NGSS Innovations, pp. 1-2)

“To capture the vision in the Framework, students should be assessed on the extent to which they have achieved a coherent scientific worldview by recognizing similarities among core ideas in science or engineering that may at first seem very different, but are united through crosscutting concepts.” (NGSS Appendix G: Crosscutting Concepts, p. 3)

“The framework is designed to help realize a vision for education in the sciences and engineering in which students, over multiple years of school, actively engage in scientific and engineering practices and apply crosscutting concepts to deepen their understanding of the core ideas in these fields.” (A Framework for K-12 Science Education, p. 10)

“...learning about science and engineering involves integration of the knowledge of scientific explanations (i.e., content knowledge) and the practices needed to engage in scientific inquiry and engineering design. Thus the framework seeks to illustrate how knowledge and practice must be intertwined in designing learning experiences in K–12 science education.” (A Framework for K-12 Science Education, p. 11)

“Curricula based on the framework and resulting standards should integrate the three dimensions—scientific and engineering practices, crosscutting concepts, and disciplinary core ideas—and follow the progressions articulated in this report.” (A Framework for K-12 Science Education, p. 246)

“...sensemaking is a dynamic process of building or revising an explanation in order to “figure something out”—to ascertain the mechanism underlying a phenomenon in order to resolve a gap or inconsistency in one's understanding. One builds this explanation out of a mix of everyday knowledge and formal knowledge by iteratively proposing and connecting up different ideas on the subject. One also simultaneously checks that those connections and ideas are coherent, both with one another and with other ideas in one's knowledge system. (Defining sensemaking: Bringing clarity to a fragmented theoretical construct, p. 191-192)

1g.MLL-1, 1g.MLL-2, and 1g.MLL-3

- Bailey, A. L., Butler, F. A., Stevens, R., & Lord, C. (2007). Further specifying the language demands of school. In A.L. Bailey (Ed.), *The language demands of school: Putting academic English to the test* (pp. 103-156)
- ELSF Science Guidelines: <https://www.elsuccessforum.org/science-guidelines>
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Walqui, A., & Bunch, G. C. (2019). *Amplifying the curriculum: Designing quality learning opportunities for English learners*. Teachers College Press.
- WIDA ELD Framework: <https://wida.wisc.edu/teach/standards/eld/2020>
- WIDA, June 2023. *Focus Bulletin: Words for Science Learning: Which Words and When?*

<https://wida.wisc.edu/sites/default/files/resource/FocusBulletin-Words-for-Science-Learning.pdf>

Resources:

- [2015 Achieve NGSS Innovations](#)
- [NGSS Appendix G: Crosscutting Concepts](#)
- [A Framework for K-12 Science Education](#)
- Tor Ole B. Odden & Rosemary S. Russ (2018) Defining sensemaking: Bringing clarity to a fragmented theoretical construct, *Science Education*, 103:1, 187-205, DOI: <https://doi.org/10.1002/sce.21452>

Indicator 1g Guiding Question:

Are the materials designed to support meaningful student sensemaking with the three dimensions?

Evidence Collection

1g

Locations to review:

- Review the learning sequences and learning opportunities in both student and teacher materials across the course.

Resources to use:

- Review NGSS progression documents and standards as needed. Use the [Codes for NGSS Elements](#) document.

Record evidence:

- Determine where students engage with novel, uncertain, or unexplained phenomena, problems, or scientific concepts.
- Determine where students use their prior knowledge, new information, and evidence to figure out novel, uncertain, or unexplained phenomena, problems, or scientific concepts.
- Determine where students have the opportunity to iterate on their thinking as they figure out novel, uncertain, or unexplained phenomena, problems, or scientific concepts. This includes both discourse and individual reflection.
- Determine where student sensemaking requires meaningful, intentional, and integrated use of SEPs, CCCs, and DCIs.
- Determine where meaningful and intentional presence of two-dimensional integration of SEPs and DCIs, CCCs and DCIs, or CCCs and SEPs occurs.
- Identify the presence of above and/or below grade band elements associated with sensemaking.

1g.MLL-1, 1g.MLL-2, and 1g.MLL-3

- Describe how the materials provide strategies, appropriate support, and accommodations that will foster MLL students' regular and active participation. Include opportunities for speaking, listening, reading, and writing to develop practices and knowledge of the subject matter. This may include scaffolding, but should scaffold up towards grade-level work.

- Describe content-specific or lesson-specific strategies and/or materials provided for supporting MLL students engaging in grade-level/grade-band instruction. There must be more than a statement at the beginning of the chapter or lesson that is generic or states that the same strategy could be used with every lesson.
 - Describe how specific supports and/or routines allow MLL students to access grade-level instruction/content and negotiate meaning.
 - Describe how language supports and scaffolds are aligned to academic tasks and address the four domains of language (speaking, listening, reading, and writing).
 - Describe how language supports and scaffolds support MLL students' understanding of entire tasks: what the task is asking them to do, their full participation in the task (including navigating and negotiating resources), and their demonstration of understanding through what the task asks them to produce.
 - Describe how language supports, strategies, and resources allow all MLL students including SIFE/SLIFE (Students with Limited or Interrupted Formal Education), those literate in their primary language, long-term MLLs, and those at varying levels of English proficiency to attain grade-level standards.
- Describe ways in which materials amplify rather than simplify English language structures and forms.
- Describe targeted opportunities for MLL students to use and develop language.
- Describe ways in which the materials focus supports around language functions and the disciplinary practices they are intertwined with, moving beyond concentrating solely on vocabulary.
- Describe ways in which the materials support MLL students' meaning-making of vocabulary in context.
- Describe ways in which the materials encourage MLL students to use interdisciplinary words and phrases that can be used across subjects, as well as content-area words and phrases specific to the discipline being taught.
- Describe ways in which the materials provide activities to help distinguish between common everyday meanings of language and content-specific meanings (*ex: gas = makes a car run or a state of matter*).
- Describe opportunities for MLLs to engage in structured academic discourse with teachers and peers, and how these interactions build conceptual understandings and disciplinary language use.

Cluster Meeting

During the cluster meeting:

1g

- How often do learning sequences contain three-dimensional sensemaking?
- How often do learning sequences contain two-dimensional sensemaking?
- How often do learning sequences contain opportunities for students to iterate on their thinking as they engage in sensemaking?

1g.MLL-1, 1g.MLL-2, and 1g.MLL-3

- Do the materials include guidance for teachers in supporting MLLs in learning opportunities that integrate all three dimensions in meaningful ways?
- Do the materials include guidance for teachers in supporting MLLs in actively engaging in the SEPs and CCCs to deepen understanding and use of DCIs?
- Do the materials include guidance for teachers to support MLL students' intentional and meaningful use of all three dimensions to support sensemaking?
- Where and how do materials help teachers use supports while maintaining the cognitive demand of tasks?
- Where and how do materials support learners' understanding of tasks and concepts with the use of specific language resources?
- Where and how do the supports assist students in producing the language to demonstrate their understanding (language models and frames)?
- Do the supports oversimplify or water down the content?
- Do the materials provide language supports that enable students to have meaningful interactions through extended conversation to build understanding?
- How do language supports align to the academic tasks (beyond turn and talk, and generic/basic sentence frames)?
- How do language supports provide opportunities to develop language using the four domains of language (speaking, listening, reading, and writing)?

Criterion 2: Coherence of MLL Supports

MLL supports are intentionally developed over time and reflect the interdependence of language and content.

HS Science Criterion 2.1	Coherence and Full Scope of the Three Dimensions: Materials are coherent in design, scientifically accurate, and support claims made for all three dimensions.
2.1.MLL-1	Materials intentionally develop language in ways valued by disciplinary practices over time, across lessons, units, and throughout the course.

2.1.MLL-1 Scoring:

2 points

- Materials show evidence of the intentional development of language in ways valued by disciplinary practices over time, through lessons, units, and throughout the course.

1 point

- Materials show some evidence of the intentional development of language in ways valued by disciplinary practices over time, through lessons, units, and throughout the course, but the development is inconsistent.

0 points

- Materials do not show evidence of the intentional development of language in ways valued by disciplinary practices over time, through lessons, units, and the overall scope and sequence.

About this indicator:

What is the purpose of this Indicator?

Just as content develops across lessons and units, so too, does disciplinary language evolve over lessons and units. In the same way that content is carefully sequenced to build upon ideas, disciplinary language can also be organized and planned in a way that intentionally builds across lessons, bridging students' everyday language to more academic language. The colloquial, day-to-day language serves as a bridge to the disciplinary ways of communicating with the larger academic community.

Research or Standards connection:

From ELSF: “Students utilize a large repertoire of language as they engage in science sense-making. They bring their own linguistic resources in the form of their everyday and home language to understand, illustrate, and communicate about scientific ideas in meaningful ways; other times, they might utilize specialized language, like passive voice, nominalization, or multimodal representations, to communicate a specific concept. To provide students with language-rich science learning environments, and ensure true comprehension and learning, teachers must see and leverage **all** the ways language is used for doing science.”

Resources:

- Bailey, A. L., Butler, F. A., Stevens, R., & Lord, C. (2007). Further specifying the language demands of school. In A.L. Bailey (Ed.), *The language demands of school: Putting academic English to the test* (pp. 103-156)
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Walqui, A., & Bunch, G. C. (2019). *Amplifying the curriculum: Designing quality learning opportunities for English learners*. Teachers College Press.
- WIDA ELD Framework: <https://wida.wisc.edu/teach/standards/eld/2020>

2.1.MLL-1 Guiding Question:

Do materials intentionally develop language in ways valued by disciplinary practices over time, through lessons, units, and throughout the course, and any framing of the interdependence of content, practices, and language?

Evidence Collection

In the instructional materials being reviewed:

- Describe any plan in the materials to intentionally develop language in ways valued by disciplinary practices over time.
- Describe any framing in the materials of the interdependence of content, practices, and language.
- Describe how the materials present a plan for teachers to bridge between students’ informal and everyday ways of communicating and formal academic ways of communicating.
- Describe how the materials introduce and support development of disciplinary ways of communicating.

****Note:** Materials may plan to develop language through integrating language learning goals over time into the overall math scope and sequence document of the course. The plan itself should be described here, in 2.1.MLL-1. The way the language learning goals manifest in the scope and sequence should be described in 2.1.MLL-2 in accordance with the evidence collection bullets.

Cluster Meeting

- Is language addressed throughout the curriculum?
- Within lessons and units, is there a bridge between everyday and disciplinary ways of talking and if so, is the bridge described?
- Over the course of the curriculum, do language goals/objectives reflect an expectation of increasing participation in disciplinary discourse practices?
- Where and how do materials provide guidance for teachers to foster conversations using everyday and disciplinary language and distinguishing between the two?
- Do materials guide teachers to connect students' everyday and informal language to disciplinary language and if so, how?
- Do materials provide consistent opportunities for students to develop disciplinary language?
- Are disciplinary discourse practices highlighted in the materials?

HS Science Criterion 2.1	Coherence and Full Scope of the Three Dimensions: Materials are coherent in design, scientifically accurate, and support claims made for all three dimensions.
2.1.MLL-2	Materials include a scope & sequence that develops different language learning goals over time (activities, lessons, units, courses), similar to the progression of content and practice learning objectives, to build toward student independence.

Scoring:

1 point

- Materials include a scope & sequence that develops different language learning goals over time (activities, lessons, units, courses), similar to the progression of content and practice learning objectives, to build toward student independence.

0 points

- Materials do not include a scope & sequence that develops different language learning goals over time (activities, lessons, units, courses), similar to the progression of content and practice learning objectives, to build toward student independence.

About this indicator:

What is the purpose of this Indicator?

In recent years, instructional materials have increasingly included disciplinary language development, adding key vocabulary and language objectives. At times, however, these language objectives have not been well-integrated with the content, giving the impression that the language objectives are ancillary or optional. Instead, content and language are interdependent so that as students learn content, they also need to be apprenticed into its language in a planful way. It's important for the scope and sequence documents within materials to make the connections between content and language clear to teachers for language development.

Research or Standards connection:

From ColorinColorado: "Implementing language objectives can be a powerful first step in ensuring that English learners have equal access to the curriculum even though they may not be fully proficient in the language. This is because the second language acquisition process requires opportunities for the language learner to be exposed to, practice with, and then be assessed on their language skills (Echevarria, Short, & Vogt, 2008)."

Resources:

- Bailey, A. L., Butler, F. A., Stevens, R., & Lord, C. (2007). Further specifying the language demands of school. In A.L. Bailey (Ed.), *The language demands of school: Putting academic English to the test* (pp. 103-156)

- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Walqui, A., & Bunch, G. C. (2019). *Amplifying the curriculum: Designing quality learning opportunities for English learners*. Teachers College Press.
- WIDA ELD Framework: <https://wida.wisc.edu/teach/standards/eld/2020>

2.1.MLL-2 Guiding Question:

Do materials include a scope & sequence that develops different language learning goals over time (activities, lessons, units, courses), describing the language goals at the lesson and unit level?

Evidence Collection

In the instructional materials being reviewed:

- Describe how the scope & sequence develops different language learning goals over time (activities, lessons, units, courses), similar to the progression of content and practice learning objectives, to build toward student independence.
- Describe whether and how the language learning goals address the four domains of speaking, listening, reading, and writing, and whether there is a balance of the domains over time.
- Describe the scope and sequence of content-specific or lesson-specific goals for students using language to learn grade-level content and engage in disciplinary practices.
- Describe how the curriculum spirals concepts, skills, and language throughout with increasing sophistication, precision, and/or complexity to give students consistent exposure and multiple opportunities to learn them over time.
- Describe the alignment between lessons' language and content learning goals as shown in the scope and sequence.

Cluster Meeting

- Is there a scope and sequence devoted to language development, or is language development clearly outlined in the content scope and sequence?
- Does the curriculum spiral language skills to give students consistent exposure and multiple opportunities to learn them over time?
- How are language goals/objectives integrated with content goals/objectives at the lesson and unit level, as described by the scope and sequence?
- Do the language goals/objectives incorporate speaking, listening, reading, and/or writing in a balanced way or are some modes overrepresented?
- Do materials guide teachers to balance the four domains of language development across lessons and over the course of units and if so, how?

HS Science Criterion 2.1	Coherence and Full Scope of the Three Dimensions: Materials are coherent in design, scientifically accurate, and support claims made for all three dimensions.
2.1.MLL-3	Materials include language goals/objectives that are incorporated at the individual lesson level.

2.1.MLL-3 Scoring

4 points	3 points	2 points	0 points
<p>Materials include language goals/objectives incorporated at the lesson level that are:</p> <ul style="list-style-type: none"> • clear, measurable, and tied directly to the content objectives AND • written according to what designers want students to do with language (language functions), and the language structures and vocabulary that are used to support those functions (language forms). AND • clearly focused on at least one of the four domains of language: speaking, listening, reading, and writing. 	<p>Materials include language goals/objectives incorporated at the lesson level that include two out of three of the following, conditions. They are</p> <ul style="list-style-type: none"> • clear, measurable, and tied directly to the content objectives AND/OR • written according to what designers want students to do with language (language functions), and the language structures and vocabulary that are used to support those functions (language forms). AND/OR • clearly focused on at least one of the four domains of language: speaking, listening, reading, and writing 	<p>Materials include language goals/objectives incorporated at the lesson level that include only one of three of the following, conditions. They are</p> <ul style="list-style-type: none"> • clear, measurable, and tied directly to the content objectives OR • written according to what designers want students to do with language (language functions), and the language structures and vocabulary that are used to support those functions (language forms). OR • clearly focused on at least one of 	<ul style="list-style-type: none"> • Materials include language goals/objective incorporated at the lesson level, but these objectives are not clear, measurable and tied directly to the content objectives, nor are they written according to what designers want students to do with language, nor are they clearly focused on one of the four domains of language. OR • The materials do not include language goals/objectives at the lesson level.

		the four domains of language: speaking, listening, reading, and writing	
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What is the purpose of this Indicator?

In recent years, instructional materials have increasingly included disciplinary language development, adding key vocabulary and language objectives. At times, however, these language objectives have not been well-integrated with the content, giving the impression that the language objectives are ancillary or optional. Instead, content and language are interdependent so that as students learn content, they also need to be apprenticed into its language in a planful way.

Research or Standards connection:

From ColorinColorado: “Implementing language objectives can be a powerful first step in ensuring that English learners have equal access to the curriculum even though they may not be fully proficient in the language. This is because the second language acquisition process requires opportunities for the language learner to be exposed to, practice with, and then be assessed on their language skills (Echevarria, Short, & Vogt, 2008).”

Resources:

- California Department of Education (2017). English learner roadmap. Element 2.A. Integrated and designated English language development. Retrieved from <https://www.cde.ca.gov/sp/el/rm/rmpolicy.asp>
- Himmel, J. (2012, January 31). Language objectives: The key to effective content area instruction for English learners. Colorín Colorado; Colorín Colorado. Retrieved from <https://www.colorincolorado.org/article/language-objectives-key-effective-content-area-instruction-english-learners>
- Mandell, R., & Russell, F. (2019, June 20). How does my lesson stack up? ELSF. Retrieved from <https://www.elsuccessforum.org/blog/how-does-my-lesson-stack-up>
- Staples, M., Truxaw, M. P., & Cruz, V. (2020). Developing and writing language objectives. *Mathematics Teacher: Learning and Teaching PK-12*, 113(10), 828-834.

2.1.MLL-3 Guiding Question:

Do materials include language goals/objectives at the lesson level?

Evidence Collection

In the instructional materials being reviewed:

- Describe how language goals/objectives are incorporated at the individual lesson level.
- Describe whether language goals/objectives are clear, measurable, and tied directly to the content objectives. Will the language objective help students to be able to say, depict, and/or write what is asked for in the content objective?
- Describe whether language goals/objectives are written according to what students need to do with language (language functions), and/or the language structures and vocabulary that are used to support those functions (language forms).
- Describe whether the language objectives in the lesson clearly focus on at least one of the four domains of speaking, listening, reading, and writing and include.

Cluster Meeting

- Will the language goals/objectives help students to be able to say, depict, and/or write what is asked for in the content objective?
- Are the language goals/objectives formulaic and not connected to the content?
- How are language goals/objectives integrated with content goals/objectives at the lesson and unit level?
- How are language goals/objectives connected to what students will do with the language needed for learning content and/or how students learn language?

Criterion 3: Teacher Guidance

Materials provide guidance for all teachers to effectively implement the provided strategies and supports for MLLs.

HS Science Criterion 3.1	The program includes opportunities for teachers to effectively plan and utilize materials with integrity and to further develop their own understanding of the content.
Indicator 3e	<p>3e Materials provide explanations of the instructional approaches of the program and identification of the research-based strategies.</p> <p>3e.MLL Materials provide explanations of the instructional approaches of the program for MLLs and the identification of the research-based strategies.</p>

3e Scoring:

<p>2 points</p> <ul style="list-style-type: none"> Materials explain the instructional approaches of the program. AND Materials include and reference research-based strategies. 	<p>1 point</p> <ul style="list-style-type: none"> Materials explain the instructional approaches of the program. OR Materials include and reference research-based strategies. 	<p>0 points</p> <ul style="list-style-type: none"> Materials do not explain the instructional approaches of the program. AND Materials do not include and reference research-based strategies.
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3e.MLL Scoring:

<p>2 points</p> <ul style="list-style-type: none"> Materials explain the instructional approaches of the program for MLLs. AND 	<p>1 point</p> <ul style="list-style-type: none"> Materials explain the instructional approaches of the program for MLLs. OR Materials include and reference research-based 	<p>0 points</p> <ul style="list-style-type: none"> Materials do not explain the instructional approaches of the program for MLLs. AND
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<ul style="list-style-type: none"> Materials include and reference research-based strategies for the MLL approach. 	strategies for the MLL approach.	<ul style="list-style-type: none"> Materials do not include and reference research-based strategies for the MLL approach.
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About this indicator:

What is the purpose of this Indicator?

3e This indicator examines the materials to determine whether they explain the instructional approaches of the program and whether they identify research-based strategies that have informed the design of the materials.

3e.MLL In addition, it's important that publishers delineate their instructional approach for MLLs as well as their research base for that approach.

Indicator 3e Guiding Question:

Do the materials provide explanations of the instructional approaches of the program and identification of the research-based strategies?

Evidence Collection

Review the materials across the series.

For 3e:

Look for and record evidence to:

- Describe how and where the materials explain the instructional approaches of the program.
- Describe how and where the materials identify and reference research-based strategies that are used in the design.

For 3e.MLL:

- Describe how the materials frame their MLL approach and supports throughout the program for the explicit purpose of ensuring they are able to meet the standards. Meeting standards means having opportunities to use language to do disciplinary practices, in addition to accessing the material.
- Describe how and where the materials explain the instructional approaches of the program for MLLs.
- Describe how and where the materials identify and reference research-based strategies that are used in the MLL approach.

Cluster Meeting

During the cluster meeting:

For 3e:

Discuss and answer the following questions to support consensus scoring conversations:

- Where and how well do the materials explain the instructional approaches of the program?
- Where and how well do the materials identify and reference research-based strategies used in and throughout the program?

For 3e.MLL:

Discuss and answer the following questions to support consensus scoring conversations:

- Where and how well do the materials explain the instructional approaches of the program for MLLs?
- Where and how well do the materials identify and reference research-based strategies used in and throughout the program for MLLs?

HS Science Criterion 3.1	The program includes opportunities for teachers to effectively plan and utilize materials with integrity and to further develop their own understanding of the content. HS Science
3.1.MLL-1	Materials provide teacher guidance to support MLL students and to utilize the strategies, supports, and/or accommodations found.

Scoring		
2 points <ul style="list-style-type: none"> Materials provide comprehensive guidance that will assist teachers in supporting MLL students and to utilize the strategies, supports, and/or accommodations found. AND Materials include sufficient and useful annotations and suggestions that are presented within the context of the lessons where the strategies, supports, and/or accommodations are to be used. 	1 point <ul style="list-style-type: none"> Materials provide comprehensive guidance that will assist teachers in supporting MLL students and to utilize the strategies, supports, and/or accommodations found. OR Materials include sufficient and useful annotations and suggestions that are presented within the context of the lessons where the strategies, supports, and/or accommodations are to be used. 	0 points <ul style="list-style-type: none"> Materials do not provide comprehensive guidance that will assist teachers in supporting MLL students and to utilize the strategies, supports, and/or accommodations found. AND Materials do not include sufficient and useful annotations and suggestions that are presented within the context of the lessons where the strategies, supports, and/or accommodations are to be used.

About this indicator:

What is the purpose of this Indicator?

All teachers come into their classrooms with different backgrounds and levels of understanding in teaching MLLs. It is important for materials to not only provide supports for MLL students to access the content and build language, but to also provide guidance for teachers in how to best implement and use those supports.

3.1.MLL-1 Guiding Question:

Do materials provide teacher guidance to support MLL students and to utilize the strategies, supports,

and/or accommodations found?

Evidence Collection

Review the materials across the series.

Look for and record evidence to:

- Describe teacher guidance to support MLL students and to utilize the strategies, supports, and/or accommodations found.
 - Describe how teacher supports are aligned to lessons' language and content learning goals. Lessons should specify the necessary academic language and vocabulary to master the concepts without sacrificing the grade-level content or rigor.
 - Describe how materials support teachers in anticipating potential language demands, challenges, and opportunities in a lesson along the progression of language acquisition.
 - Describe suggestions included for teachers to notice student moves relevant to language and content learning goals. This guidance may include language look-fors and listen-fors to attune teachers to specific needs of MLLs.
 - Describe suggestions providing guidance for teacher responses, including probing questions and feedback, aligned with language and content learning goals. This guidance may include a range of suggested teacher responses that are flexible and fluid and may be connected to specific student moves, but should not be rigidly tied to any language proficiency hierarchy.
- Describe how guidance to teachers is inclusive of all levels of understanding in instructing MLLs. Guidance should be delivered in a way that facilitates understanding in teachers new to the work while simultaneously refining the knowledge of MLL experts.
- Describe teacher guidance on when and how to support productive struggle before intervening.

Cluster Meeting

During the cluster meeting:

- Is teacher guidance to support MLLs available at the lesson level as well in an overview document?
- Does teacher guidance support MLL students to use the strategies, supports, and/or accommodations consistently?
- Are teacher supports aligned to lessons' language and content goals?
- Do materials support teachers in anticipating potential language demands, challenges, and opportunities in a lesson? If so, do they do this along the progression of language acquisition?
- Do materials include suggestions providing guidance for teacher responses, including probing questions and feedback, aligned with language and content learning goals?
- Does guidance include a range of suggested teacher responses that are flexible and fluid and may be connected to specific student moves, but are not rigidly tied to any language proficiency hierarchy?

HS Science Criterion 3.1	The program includes opportunities for teachers to effectively plan and utilize materials with integrity and to further develop their own understanding of the content.
3.1.MLL-2	Materials include guidance for teachers to engage students in drawing attention to the use and development of language functions within disciplinary practices, allowing students to link language to concepts.

Scoring

1 point

- Materials include guidance for teachers to engage students in drawing attention to the use and development of language functions within disciplinary practices, allowing students to link language to concepts.

0 points

- Materials do not include guidance for teachers to engage students in drawing attention to the use and development of language functions within disciplinary practices, allowing students to link language to concepts.

About this indicator:

What is the purpose of this Indicator?

It's important to not only explicitly teach the language students need to be successful in the content area, but also for students to be aware of this connection. Certain language functions are used more often in certain ways in certain disciplines. Linking language to concepts allows students to more deeply learn disciplinary practices while building their academic language skills.

3.1.MLL-2 Guiding Question:

Do materials provide teacher guidance to engage students in drawing attention to the use and development of language functions within disciplinary practices, allowing students to link language to concepts?

Evidence Collection

Review the materials across the series.

Look for and record evidence to:

- Describe guidance for teachers to engage students in drawing attention to the use and development of language functions within disciplinary practices, allowing students to link language to concepts.

- Describe where and how teachers are guided to highlight the connections between language functions and disciplinary practices.
- Describe where and how teachers are guided to support students in linking language to concepts.

Cluster Meeting

During the cluster meeting:

- Is guidance for teachers provided to draw students' attention to the use and development of language functions within disciplinary practices?
- Is guidance provided for teachers to highlight the connections between language functions and disciplinary practices?
- Is guidance provided for teachers to support students in linking language to concepts?

HS Science Criterion 3.1	The program includes opportunities for teachers to effectively plan and utilize materials with integrity and to further develop their own understanding of the content.
3.1.MLL-3	Materials guide teachers on how to match students with language supports, progressing along a continuum, and to be responsive to students' current language development in relation to the content.

Scoring

2 points	1 point	0 points
<ul style="list-style-type: none"> Materials guide teachers on how to match students with language supports, progressing along a continuum. <p style="text-align: center;">AND</p> <ul style="list-style-type: none"> Materials guide teachers on how to be responsive to students' current language development in relation to the content. 	<ul style="list-style-type: none"> Materials guide teachers on how to match students with language supports, progressing along a continuum. <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Materials guide teachers on how to be responsive to students' current language development in relation to the content. 	<ul style="list-style-type: none"> Materials do not guide teachers on how to match students with language supports, progressing along a continuum. <p style="text-align: center;">AND</p> <ul style="list-style-type: none"> Materials do not guide teachers on how to be responsive to students' current language development in relation to the content.

About this indicator:

What is the purpose of this Indicator?

All MLLs bring strengths and interests to their content area learning environments. Since new knowledge, language, and skills are dependent upon pre-existing knowledge and skills, it is vital to identify what learners know and can do in order to responsively support new learning and the language needed for participation. Intentionally designed opportunities for learners to show what they know about a topic activates schema and background knowledge, and provides teachers the opportunity to observe and respond.

3.1.MLL-3 Guiding Question:

Do materials guide teachers on how to match students with language supports, progressing along a continuum, and to be responsive to students' current language development in relation to the content?

Evidence Collection

Review the materials across the series.

Look for and record evidence to:

- Describe how language supports are provided at **varying language proficiency levels**.
- Describe whether language supports include guidance for teachers on how to **match students** with supports.
- Describe how language supports and scaffolds are responsive.
- Describe whether guidance adheres solely to a strict correspondence to any hierarchy of language acquisition.

Cluster Meeting

During the cluster meeting:

- How do the materials guide teachers to utilize language supports for MLLs contingent upon learners' knowledge and information gathered about the student? (e.g., cue teachers to observe, listen, and gather information about students' current understandings and proficiencies).
- Where is there evidence of language development and levels of support (light, moderate, high)?
- Are language supports presented as fluid and responsive instead of a strict, linear language progression?

HS Science Criterion 3.1	The program includes opportunities for teachers to effectively plan and utilize materials with integrity and to further develop their own understanding of the content.
3.1.MLL-4	Materials provide guidance for teachers around using suggested scaffolds and supports with different program models for MLLs.

Scoring		
1 point <ul style="list-style-type: none"> Materials include guidance for teachers around using suggested scaffolds and supports with different program models for MLLs. 	0 points <ul style="list-style-type: none"> Materials do not include guidance for teachers around using scaffolds and supports with different program models for MLLs. 	1 point <ul style="list-style-type: none"> Materials include guidance for teachers around using suggested scaffolds and supports with different program models for MLLs.

About this indicator:

What is the purpose of this Indicator?

Different program models require different implementation of the same best-practices for MLLs. A scaffold or support that has a group of MLLs doing something slightly different than the rest of the class needs to be reasonable and accessible to a linguistically heterogeneous classroom taught solely by a content-area teacher, a similar class co-taught by a content-area teacher and an MLL specialist, and a linguistically homogeneous class taught solely by an MLL specialist. The success or failure of scaffolds to support MLL students in achieving grade-level disciplinary skills should not be predicated on the program model chosen by a school building or district.

3.1.MLL-4 Guiding Question:

Do materials provide guidance for teachers around using suggested scaffolds and supports with different program models for MLLs?

Evidence Collection

Review the materials across the series.

Look for and record evidence to:

- Describe guidance provided for teachers around using suggested scaffolds and supports with different program models, such as classes of linguistically heterogeneous students taught solely by a content-area teacher, classes of linguistically heterogeneous students co-taught by a

content-area teacher and an MLL specialist, and classes of linguistically homogeneous students taught solely by an MLL specialist.

- Describe any instances in which the materials seem to provide guidance for one program model without addressing others, for example: “Split the class based on the assessment results. The MLL specialist can teach Lesson B to those students needing more linguistic support while the classroom teacher uses Lesson A for those students who need less linguistic support.”
- Describe scaffolds and supports that do not provide reasonable guidance for teachers to implement in different program models. For example, guidance for teachers to read an additional text with recent immigrants on the American Civil War to provide context for an upcoming novel study may not account for how that strategy may be implemented while keeping the whole class on the same pacing, how it impacts students who do not need this particular support and what they might be doing while it is implemented, or provide any realistic timeframe in which this support may be employed.

Cluster Meeting

During the cluster meeting:

- Do the materials address different program models?
- If the materials address different program models, how do they do so?
- If the materials do not address different program models, are their scaffolds and supports designed in such a way that any program model can implement them with ease?
- Are there instances in which the materials seem to provide guidance for one program model without addressing others?
- What scaffolds and supports present in the materials seem like they might cause problems in different program models?

HS Science Criterion 3.2	The program includes materials designed for each student's regular and active participation in grade-level/grade-band/series content.
Indicator 3m	<p>3m Materials provide opportunities for teachers to use a variety of grouping strategies.</p> <p>3m.MLL Materials include guidance for intentional and flexible grouping structures for MLLs to ensure equitable participation.</p>

3m Scoring: Narrative Evidence Only

Note: No score is given for this indicator. Only qualitative evidence is provided.

3m.MLL Scoring

2 points	1 point	0 points
<ul style="list-style-type: none"> Materials include guidance for intentional and flexible grouping structures for MLLs. AND Materials include guidance to ensure equitable participation for MLLs in group work. 	<ul style="list-style-type: none"> Materials include guidance for intentional and flexible grouping structures for MLLs. OR Materials include guidance to ensure equitable participation for MLLs in group work. 	<ul style="list-style-type: none"> Materials provide no guidance for intentional and flexible grouping structures for MLLs or for equitable participation in group work.

About this indicator:

What is the purpose of this Indicator?

3m This indicator examines the materials to determine the types and frequency of grouping strategies for teachers to use and to determine if guidance is provided to teachers on how and when to use specific grouping strategies.

3m.MLL Flexible grouping for MLLs that is responsive to both students' language needs and the lesson content creates opportunities for learners to meaningfully interact with peers, co-create ideas, share assets and build classroom culture. Language supports in this context allow MLLs to participate fully while developing language.

Indicator 3m Guiding Question:

Do the materials provide opportunities for teachers to use a variety of grouping strategies?

Evidence Collection

Review teacher and student materials across the series.

For 3m:

Look for and record evidence to:

- Describe how and where the materials provide grouping strategies for students.
- Describe how and where the materials provide for interaction among students and the types of interactions provided.
- Describe how and where the materials provide guidance for the teacher on grouping students in a variety of grouping formats.

For 3m.MLL:

- Describe teacher guidance around using grouping strategies with Multilingual Learners.
 - Describe teacher guidance on using grouping strategies that encourage students to leverage their oral language resources in order to engage with complex disciplinary ideas and practices, and to support each other in developing disciplinary language in English
 - Describe teacher guidance on how to use language proficiency in grouping students depending upon the lessons' purpose and tasks, (i.e., when to group students by home language or by language proficiency, either heterogeneously or homogeneously).
 - Describe scaffolds included for group work to provide support for varying levels of English proficiency.
- Describe teacher guidance on intentional grouping structures for equitable participation and monitoring for effective collaboration opportunities.

Cluster Meeting

During the cluster meeting:

Discuss and answer the following questions to support consensus scoring conversations:

For 3m:

- How and where do materials provide different grouping strategies? How does this differ based on the needs of particular students?
- How and where do materials balance whole group, small group, and individual instruction to provide for interaction among students?
- How and where do the materials provide guidance for the teacher on how and when to use specific grouping strategies?

For 3m.MLL:

- Where and how do materials prompt teachers to create intentional groups of students?
- Across the curriculum, do materials suggest varied ways of grouping? Are MLLs always grouped together? Are they always separated?
- Where and how do materials guide teachers to create explicit structures for equitable peer collaboration to practice communicating disciplinary thinking (share ideas, defend claims, develop/critique lines of reasoning)?
- Where and how do materials prompt teachers to monitor groups so that all students equitably

participate?

HS Science Criterion 3.2

The program includes materials designed for each student's regular and active participation in grade-level/grade-band/series content.

3.2.MLL-1

Materials provide guidance to encourage teachers to draw upon student home language to facilitate learning.

Scoring:

2 points

- Materials consistently provide guidance to encourage teachers to draw upon student home language to facilitate learning.

1 point

- Materials provide guidance to encourage teachers to draw upon student home language to facilitate learning, but not consistently.

0 points

- Materials do not provide guidance to encourage teachers to draw upon student home language to facilitate learning.

About this indicator:

What is the purpose of this Indicator?

This indicator examines the materials for teacher guidance on connecting learning opportunities to students through use of student home language. Students benefit when they have access to all of their linguistic resources as they learn science and engineering practices. This includes students' everyday ways of talking, home language, and familiar participation structures (e.g., norms for communicating with adults, familiar communication styles). When students have access to all of their linguistic resources, they have more opportunities to make meaning of content.

Indicator 3.2.MLL-1 Guiding Question:

Do the materials provide guidance to encourage teachers to draw upon student home language to facilitate learning?

Evidence Collection

Review teacher and student materials across the series.

Look for and record evidence to:

- Describe how the materials provide suggestions and strategies to use the home language to support students in learning grade-level/grade-band science and engineering.
- Describe how the materials present multilingualism as an asset in reading and learning grade-level/grade-band science and engineering, and how to use students' home language strategically for learning how to negotiate text in the target language.
- Describe how teacher materials include guidance on how to garner information that will aid in learning, including the family's preferred language of communication, schooling experiences in other languages, literacy abilities in other languages, and previous exposure to academic or

everyday English. Include whether and how the materials guide teachers to use this information strategically in instruction.

Cluster Meeting

During the cluster meeting:

Discuss and answer the following question to support consensus scoring conversations:

- What strategies are present to utilize student home language in context with the materials? Are these strategies generalized or specific to certain content?
- Do materials promote home language and knowledge as an asset to engage students in the content material?
- Do the materials use student home language as an additional support to gain access to the content, or rely on students understanding the content in their home language?
- Do the materials recognize all languages, or rely on known information about some of the more prevalent languages (i.e., cognates in Spanish)?

HS Science Criterion 3.2

The program includes materials designed for each student's regular and active participation in grade-level/grade-band/series content.

3.2.MLL-2

Materials provide scaffolds and supports for MLLs in an equitable way.

3.2.MLL-2 Scoring

1 point

- Materials provide scaffolds and supports in an equitable way.

0 points

- Materials do not provide scaffolds and supports in an equitable way.

About this indicator:

What is the purpose of this Indicator?

This indicator aims to determine whether any barriers to using supports for MLLs exist within the materials. Sometimes, scaffolds and supports for MLLs are presented as supplements that must be purchased separately from the core materials. Sometimes, scaffolds and supports are only available digitally and not in print. Stakeholders should be aware of any separate purchasing needs, or how, for example, schools without one-to-one technology may be impacted by the presentation of scaffolds and supports for MLLs.

3.3.MLL-1 Guiding Question:

Do scaffolds and supports for MLLs manifest in an equitable way?

Evidence Collection

Review teacher and student materials across the series.

Look for and record evidence to:

- Describe how scaffolds and supports manifest in materials in an equitable way.
- Describe the accessibility of supplementary materials (for example, materials for MLLs should not only be available online if all other students get workbooks).
- Describe the availability of supplementary materials (for example, 3-D models may be suggested for better student understanding of a concept, but unlike core materials, not provided as part of the program).
- Describe the pacing guides provided for using supplementary materials and support lessons for MLLs. Can teachers easily supplement grade-level materials within the time provided, or will they be forced to supplant grade-level materials to keep the whole class on pace to finish instruction within a given time period?

Cluster Meeting

During the cluster meeting:

Discuss and answer the following questions to support consensus conversations:

- Are scaffolds and supports for MLLs included in the core curricular materials, or do they need to be purchased separately?
- Are scaffolds and supports built in to any print materials, or are they only available online?
- Are there suggested supplementary materials for MLLs that require additional purchases?
- Is overall pacing considered when scaffolds and supports for MLLs are suggested?

Criterion 4: Assessment

Materials provide guidance for teachers on how MLLs can demonstrate their knowledge and understanding of grade-level content, regardless of language ability, as well as providing guidance on formatively assessing for language alongside content.

HS Science Criterion 3.2	The program includes materials designed for each student's regular and active participation in grade-level/grade-band/series content.
Indicator 3n	<p>3n Assessments offer accommodations that allow students to demonstrate their knowledge and skills without changing the content of the assessment.</p> <p>3n.MLL Assessments offer accommodations that allow MLLs to demonstrate their knowledge and skills without changing the content of the assessment.</p>

3n Scoring: Narrative Evidence Only

Note: No score is given for this indicator. Only qualitative evidence is provided.

3n.MLL Scoring

1 point

- Assessments offer accommodations that allow MLLs to demonstrate their knowledge and skills without changing the content of the assessment

0 points

- Assessments do not offer accommodations that allow MLLs to demonstrate their knowledge and skills without changing the content of the assessment.
- OR
- Assessments offer accommodations for MLLs, but change the content of the assessment.

About this indicator:

What is the purpose of this Indicator?

3n This indicator examines the series' assessments and assessment guidance documentation to determine what accommodations are available.

3n.MLL This part of the indicator zeroes in on the ways in which the series' assessments and assessment guidance account for MLLs, allowing them to demonstrate their knowledge and understanding of grade-level content regardless of language ability.

Research and Resources

Gottlieb, Margo. "Breaking Down the Monolingual Wall VIII: Our Students Are Multilingual. Shouldn't Assessment Be?" *Language Magazine*, 17 Sept. 2024, www.languagemagazine.com

Indicator 3n Guiding Question:

Do the assessments offer accommodations that allow students to demonstrate their knowledge and skills without changing the content of the assessment?

Evidence Collection

Review assessments and corresponding assessment guidance across the series.

3n

Look for and record evidence to:

- Describe where and how accommodations are offered that ensure all students can access the assessment,(e.g. text to speech, increased font size, etc.) without changing the content of the assessment.
- Describe any guidance for teachers on the use of provided accommodations.
- Describe whether any accommodations alter grade-level/course expectations or the content of the assessment for students.

3n.MLL

Look for and record evidence to:

- Describe any guidance provided for teachers to account for varied levels of English language proficiency without changing the content of the assessment, yet still allowing MLLs to show grade level mastery regardless of language ability.
- Describe any accommodations provided specifically to ensure that MLLs can access assessments. General accommodations that might benefit MLLs but are provided for all students will be covered in 3n.
- Describe whether current instructional supports for MLLs are maintained throughout the assessment process.

Cluster Meeting

During the 3n cluster meeting:

Discuss and answer the following questions to support consensus scoring conversations:

- Where and how do the assessments provide accommodations for students?
- Where and how is guidance provided for teachers to use the accommodations?
- Do accommodations alter grade-level/course expectations for students?

During the 3n.MLL cluster meeting:

Discuss and answer the following questions to support consensus scoring conversations:

- Are current instructional supports for MLLs maintained through the assessment process?

HS Science Criterion 1.2

Three-Dimensional Learning and Assessment: Materials are designed for three-dimensional learning and assessment.

1.2.MLL-1

Materials include a formative assessment plan for language alongside content that includes a connection to established unit/lesson language goals.

Scoring:

<p>2 points</p> <ul style="list-style-type: none"> Materials include a formative assessment plan for language alongside content that consistently includes a connection to established unit/lesson language goals. 	<p>1 point</p> <ul style="list-style-type: none"> Materials include formative assessments for language alongside content, but they are not consistently connected to unit/lesson language goals AND/OR Materials include some formative assessments for language, but they appear inconsistently across the course. 	<p>0 points</p> <ul style="list-style-type: none"> Materials do not include any formative assessments for language.
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About this indicator:

What is the purpose of this Indicator?

Formative assessment is a critical process to improving learning, and a driver for supporting MLLs who are learning new language and content simultaneously. Just as materials guide teachers to collect formative assessment data connected to content goals, they can also provide guidance for collecting data connected to the language goals.

1.2.MLL-1 Guiding Question:

Do materials include a formative assessment plan for language alongside content that includes a connection to established unit/lesson language goals?

Evidence Collection

Review assessments and corresponding assessment guidance across the series.

Look for and record evidence to:

- Describe whether and to what extent formative assessments are aligned to lessons' language and content learning goals.
- Describe teacher guidance for conducting consistent formative assessments to support students' language proficiencies and content understanding.
- Describe guidance for teachers to collect formative assessment data around language at key points throughout the unit.

Cluster Meeting

During the cluster meeting:

Discuss and answer the following questions to support consensus scoring conversations:

- Where and how do the materials connect the language goals to the formative assessments?

- Is there guidance for teachers to collect formative assessment data (with a focus on oral and written language samples) throughout the unit? Is it across key points or only at the end?
- How do the assessment materials capture both students' content knowledge and language development?
- How do rubrics and other assessment criteria specifically identify and describe expected content, practice, and language?

HS Science Criterion 1.2

Three-Dimensional Learning and Assessment: Materials are designed for three-dimensional learning and assessment.

1.2.MLL-2

Materials include guidance for gathering, analyzing, using, and communicating language and content data from formative assessments in a cycle of continuous improvement.

Scoring

2 points <ul style="list-style-type: none"> Materials consistently include guidance for gathering, analyzing, using, and communicating language and content data from formative assessments in a cycle of continuous improvement. 	1 point <ul style="list-style-type: none"> Materials include guidance for gathering, analyzing, using, and communicating language and content data from formative assessments in a cycle of continuous improvement, but not consistently. 	0 points <ul style="list-style-type: none"> Materials do not include guidance for gathering, analyzing, using, and communicating language and content data from formative assessments in a cycle of continuous improvement. <p><i>*Note: Materials that receive a score of 0 for 1.2.MLL-1 automatically receive a score of 0 for 1.2.MLL-2, as guidance on formative assessments can only be present in materials that contain formative assessments.</i></p>
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About this indicator:

What is the purpose of this Indicator?

Guidance for formative assessment practices helps teachers and students determine next steps in content and language learning. Collecting and analyzing student assessment data is a continuous cycle that includes the teacher gathering evidence and making decisions about students' speaking, listening, reading, and writing skills related to language and content; providing feedback; and using this evidence to adjust instruction while teaching or when planning. Instead of focusing on MLLs' formally assessed language proficiency levels as the sole metric for decision-making, formative assessment practices focus on what the teacher knows about the students' strengths, assets, and needs in the context of the learning. When this data is communicated to all stakeholders, content and language learning continue to move forward and students can take a more active role in their learning.

1.3.MLL-2 Guiding Question:

Do materials include guidance for gathering, analyzing, using, and communicating language and content data from formative assessments in a cycle of continuous improvement?

Evidence Collection

Review assessments and corresponding assessment guidance across the series.

Look for and record evidence to:

- Describe guidance for teachers around using formative assessments to gauge student use of disciplinary language practices in addition to content understanding.

- Describe how the learning opportunities and assessments help teachers identify and follow-up on whether the student has success in content vs. language acquisition, as well as identify when students may have misconceptions with content vs. language demands, to ensure the two are not conflated.
- Describe teacher guidance for providing informative, timely, and actionable feedback to support students' language proficiencies and content understanding.
 - Describe how rubrics and other assessment criteria specifically identify and describe typical content, practice, and language achievements. These tools may also suggest ways to capture students' progress from everyday language to language for more formal academic purposes.
 - Describe guidance for teachers on how to respond to formative assessment performance and give specific feedback on content and language understandings.
- Describe how student materials provide guidance for student self-awareness of their progress in disciplinary language practices as well as opportunities for students to reflect on that progress, using appropriate scaffolds and supports.
- Describe any examples of quality work provided for teachers and students and whether these exemplars are inclusive of varying levels of language proficiency. This work may include written model tasks, examples of teacher-student and student-student interactions, or examples and non-examples of intended practices. This work should be presented in a way that highlights student potential for English proficiency, and not be deficit-based.

Cluster Meeting

During the cluster meeting:

- Where and how do the materials provide guidance for how teachers will give informative, timely, and actionable feedback for disciplinary language development?
- Where is the guidance (i.e. look fors, listen fors) for how teachers will use and analyze student language assessments to adjust instruction as needed, by adding scaffolds or amplifying language?
- How do materials provide students with opportunities to self-assess? Peer assess? Is there sufficient structure to ensure the feedback is actionable?
- Is there guidance and time allocated for how students will incorporate teacher feedback to revise their work?
- Where are examples of quality work provided for teachers and students? Do the examples represent different stages of language development? Are the examples presented in a way that highlights student potential for developing language?
- Do the materials provide guidance for how teachers communicate assessment data and progress to the student? To the student's family? To other teachers?
- Do they do so in a way that promotes an asset-based view of students? Do they highlight what students can do along with areas of growth?
- Do they provide actionable suggestions to support content and language development?