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Multilingual Learner Supports Evidence Guide v2.0

Mathematics

High School

Figure 1: MLL Criteria for Review of Math Materials (Grades K-12)

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

Do the materials include necessary components of curriculum to allow MLLs to fully participate in grade-level content?These indicators are integrated into content-area tools in key places crucial to content.

Criterion 2: Coherence of MLL Supports

Are MLL supports intentionally developed over time and do they reflect the interdependence of language and content?

Criterion 3: Teacher Guidance

Do materials provide guidance for all teachers to effectively implement the provided strategies and supports for MLLs?

Criterion 4: Assessment

Do 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?

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

To identify the Criterion rating, educators use evidence gathered to score indicators related to each indicator.

Criterion 1 MLL indicators are connected to the content indicators focusing on grade-level standards and the CCSS expectations for rigor and mathematical practices in each tool. Indicator names reflect the content indicator they are connected to using this naming convention: *(Content Indicator).MLL*. Each indicator in this criterion relies on the same research-based measures of quality for MLLs' simultaneous development of content and language, which are detailed in the Evidence Guide. To ensure that MLLs can fully and completely participate in all aspects of the content crucial to high-quality instructional materials, each indicator in this criterion has been constructed in the following manner: "Materials provide support for MLLs' full and complete participation in *(connected content indicator language).*"

Criterion 1: Materials include 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.

HS Math Criterion 1.1	Materials are coherent and consistent with "the high school standards that specify the mathematics which all students should study in order to be college and career ready" (p. 57 of CCSSM).
Indicator 1b	**1b** Materials provide students with opportunities to work with all high school standards and do not distract students with prerequisite or additional topics that do not support the high school standards. • **1b.i** Materials, when used as designed, allow students to spend the majority of their time on the content from CCSSM widely applicable as prerequisites for a range of college majors, postsecondary programs, and careers. • **1b.ii** Materials, when used as designed, allow students to fully learn each standard. **1b.MLL** Materials provide support for MLLs' full and complete participation in fully learning each standard.

1b.i Scoring:	
2 points • Evidence clearly describes how the materials for the SERIES, when used as designed, allows students to spend the majority of their time (>50%) on the content widely applicable as prerequisites (WAPs) for a range of college majors, postsecondary programs, and careers.	0 points • Materials do not present all students with extensive work with grade-level problems. AND • Materials do not present opportunities for all students to meet the full intent of grade-level standards.

1b.ii Scoring:		
4 points • Evidence clearly describes how the materials for the series, when used as designed, enable students to fully learn all or most of the non-plus standards.	2 points • Materials for the series, when used as designed, do not enable students to fully learn some of the non-plus standards.	0 points • Materials for the series, when used as designed, do not enable students to fully learn most of the non-plus standards.
1d.MLL Scoring:		
2 points • Materials consistently provide strategies and supports for MLLs to fully and completely participate in fully learning each standard.	1 point • Materials provide strategies and supports for MLLs to participate in fully learning each standard, 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 fully and completely participate in fully learning each standard, but they are not employed consistently throughout the program.	0 points • Materials do not provide strategies and supports for MLLs to fully and completely participate in fully learning each standard.

About this indicator:

What is the purpose of Indicator 1b?
This indicator, along with the other indicators of Gateway 1, determines the shifts of focus and coherence. Indicator 1b.i attends to the shift of focus by specifically examining if a majority of the instructional materials are designed to engage students in content from the CCSSM widely applicable as prerequisites for a range of college majors, postsecondary programs, and careers. Indicator 1b.i attends to the shift of coherence because much of the content from the CCSSM widely applicable as prerequisites for opportunities after high school not only spans multiple courses at the high school level but also incorporates the application of key takeaways from grades 6 through 8. Indicator 1b.ii attends to the shift of focus by examining the non-plus standards. Indicator 1b.ii attends to the shift of coherence by determining if the materials of a series, when used as designed, enable all students to fully learn every aspect of each non-plus standard.

What is the purpose of Indicator 1b.MLL?
MLLs can and will reach grade-level standards when provided the appropriate scaffolds, supports, and opportunity to do so. 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

create conditions for new learning, and provide opportunities for teachers to observe, understand, and respond to learners' current knowledge.

Research or Standards connection for Indicator 1b:

- Common Core State Standards for Mathematics (CCSSM)
- High School Publishers' Criteria for the CCSSM (Spring 2013)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for High School Mathematics
- Achieve EQuIP Rubric for Lessons & Units
- CCSS Mathematics Curriculum Materials Analysis Project

Research or Standards connection for Indicator 1b.MLL:

- 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)
- Chu, H. & Hamburger, L. (2019). Designing mathematical interactions for English learners. *Mathematics Teaching in the Middle School, 24*(4), 218–225.
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- Hakuta, K., Butler, Y. G., & Witt, D. (2000). How long does it take English learners to attain proficiency? *The University of California Linguistic Minority Research Institute, (2000-1)*.
- Moschkovich, J. (2013). Principles and guidelines for equitable mathematics teaching practices and materials for English language learners. Journal of Urban Mathematics Education. 6(1). 45-57.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Saunders, W., Goldenberg, C., & Marcelletti, D. (2013). English language development: Guidelines for instruction. *American Educator, 37*(2), 13.
- Torff, B., & Murphy, A. (2020). Teachers' beliefs about English learners: Adding linguistic support to enhance academic rigor. *Phi Delta Kappan*, 101, 14-18.
- 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

Resources for Indicator 1b:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- Review Table 1 on page 8 of High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) to become familiar with the content from the CCSSM widely applicable as prerequisites for a range of college majors, postsecondary programs, and careers (WAPs).

Resources for Indicator 1b.MLL:

- Chval, K. & Renaldi, C. (2022). ELSF: Amplify and facilitate student curiosity about language. *English Learners Success Forum*. Retrieved from https://www.elsuccessforum.org/resources/amplify-and-facilitate-student-curiosity-about-language

Indicator 1b Guiding Questions:

1b.i Do the materials, when used as designed, focus on the Widely Applicable as Prerequisites (WAPs) for a range of college majors, postsecondary programs, and careers?

1b.ii Do the materials, when used as designed, allow students to fully learn each non-plus standard?

Evidence Collection

For Indicator 1b.i:
Review all instructional materials provided, including assessments. For each course in the series, document how often the WAPs are addressed through any instructional materials provided, including assessments.

For each course in the series, document how often prerequisite or additional topics are included in a way that distracts students from the WAPs or non-plus standards. When noting a distraction, reviewers should clearly describe how the prerequisite or additional topics are drawing students' learning away from the WAPs or non-plus standards.

The following examples are non-conclusive guides for illustrative purpose only:

- In a first-year high school course, numerous activities, lessons, or chapters that merely review content standards from grades 6 through 8 could be distracting, prerequisite topics.
- A unit or chapter addressing the concept of limits and the skills associated with calculating limits could be a distracting additional topic.
- A unit on fractals or tessellations where the CCSSM are not intertwined would be considered an additional, distracting topic if the unit does not strengthen, support, or introduce CCSSM.

For the series, analyze how often the WAPs are addressed by the instructional materials, including assessments.

Analysis of how often the materials focus on WAPs could include, but is not limited to:

- amount of instructional materials, including assessment items, aligned to the WAPs;
- amount of instructional materials, not including assessment items, aligned to the WAPs; and
- amount of instructional materials that include distracting prerequisite or additional topics.

For Indicator 1b.ii:
Review the HS CCSSM to become familiar with the non-plus standards and clusters.

Review the tables of contents for both the student and teacher editions, any standards-alignment information in the materials, and any scope and sequence information provided by the publisher to establish a foundation of where and how often the non-plus standards are addressed.

Review chapters, lessons, activities, and assessments throughout the series to verify any standards-alignment information in the materials or given by the publishers.

For each course in the series, reviewers should note what aspects, how often those aspects, and in what ways those aspects of non-plus standards are addressed through any instructional materials provided, including assessments.

Aspects could include, but are not limited to:

- types of mathematical objects (equation, expression, inequality);
- types of numbers;
- families of mathematical objects (polynomial, exponential, logarithmic, rational, etc.); and
- tools used (paper and pencil, graphing calculators, software, etc.).

For the series, reviewers should examine all provided materials to document when ***STUDENTS*** are provided with sufficient opportunities to fully learn a non-plus standard, paying careful attention to each aspect of the standard.

- For example, if students are given numerous opportunities to decide if two figures are similar by using the definition of similarity in terms of transformations, articulate the transformations required to show the similarity, and explain the meaning of similarity- all verified with formative assessments and given further opportunities if needed- then the materials allow students to fully learn standard G-SRT.2.

For the series, reviewers should document when aspects of non-plus standards are addressed on limited occasions through any instructional materials provided, including assessments.

The following examples are non-conclusive guides for illustrative purpose only:

- If the materials provide only one lesson where students use function notation, then the materials do not allow students to fully learn F-IF.2.
- If students are required to explain each step in solving a simple equation a limited number of times within the series, then the materials do not allow students to fully learn A-REI.1.
- If students only calculate average rate of change of linear functions and all other aspects of F-IF.6 are addressed, then the materials do not allow students to fully learn F-IF.6.
- If materials provide limited exercises for students to practice a standard, then the materials do not allow students to fully learn the standard.

For the series, reviewers should consider the numbers, equation types, contexts, etc. that students should encounter as indicated by the non-plus standards. The following examples are non-conclusive guides for illustrative purpose only:

- If students solve systems of linear equations only with equations in slope-intercept form, then the materials do not allow students to fully learn A-REI.6.
- If students only factor quadratics with a leading coefficient of 1, then the materials do not allow students to fully learn A-SSE.3 or A-APR.3.

For the series, reviewers should note where the materials employ formative assessments to help teachers and students know if students are ready to move on or if students require more work on non-plus standards. When this occurs, document how teachers and students will know what to do in order to fully learn non-plus standards.

For Indicator 1b.MLL:

In the Instructional Materials being reviewed:

- 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 all students in 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 student 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: table = furniture or a list of numbers showing the results of a calculation*).

Cluster Meeting

For the Indicator 1b.i cluster meeting:
Do a majority of the materials in the series, when used as designed, engage students in the WAPs?

- If yes, be able to clearly explain what evidence has been collected and how the evidence justifies your conclusion.
- If no, be able to clearly justify with evidence how the materials fall short of having a majority. Evidence could include how the materials might be supplemented to achieve a majority.

Do the materials in the series, when used as designed, distract students with prerequisite or additional topics? In what ways might topics that align to standards from grades 6 through 8 or the plus standards not be considered distracting, prerequisite, or additional?

For the Indicator 1b.ii cluster meeting:
Do the materials, when used as designed, enable students to fully learn each non-plus standard?

- If yes, be able to clearly describe the various ways in which the materials enable all students to learn all of the aspects of the non-plus standards.
- If no, be able to clearly describe what characteristics the series is missing and how those characteristics would inhibit students from fully learning each non-plus standard.

If the series has not enabled all students to fully learn each non-plus standard, then what are the specific characteristics (for example, limited opportunities for practice, extensive scaffolding, etc.) that the series is missing?

Do the available materials provide ample opportunity for students to demonstrate that they have mastered the standard by the end of the series?

Discussion questions for the Indicator 1b.MLL cluster meeting:

- 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)?

HS Math Criterion 2.1	Materials reflect the balances in the Standards and help students meet the Standards' rigorous expectations by giving appropriate attention to: developing students' conceptual understanding; procedural skill and fluency; and engaging applications.
Indicator 2a	**2a** Materials support the intentional development of students' conceptual understanding of key mathematical concepts, especially where called for in specific content standards or clusters. **2a.MLL** Materials provide support for MLLs' full and complete participation in the intentional development of students' conceptual understanding of key mathematical concepts.

2a Scoring:

2 points	1 point	0 points
• Materials develop conceptual understanding throughout the series. AND • Materials provide opportunities for students to independently demonstrate conceptual understanding throughout the series.	• Materials do not develop conceptual understanding throughout the series. OR • Materials do not provide opportunities for students to independently demonstrate conceptual understanding throughout the series.	• Materials do not develop conceptual understanding throughout the series. AND • Materials do not provide opportunities for students to independently demonstrate conceptual understanding series.

2a.MLL Scoring:

2 points	1 point	0 points
• Materials consistently provide strategies and supports for MLLs to fully and completely participate in the intentional development of students' conceptual understanding of key mathematical concepts.	• Materials provide strategies and supports for MLLs to participate in the intentional development of students' conceptual understanding of key mathematical concepts, 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 fully and completely participate in the intentional development of students'	• Materials do not provide strategies and supports for MLLs to fully and completely participate in the intentional development of students' conceptual understanding of key mathematical concepts.

	conceptual understanding of key mathematical concepts, but they are not employed consistently throughout the program.	

About this indicator:

What is the purpose of Indicator 2a?
This indicator, along with 2b, 2c, and 2d, determines the shift of Rigor. Conceptual understanding of key concepts will allow students to be able to access concepts from a number of perspectives in order to see mathematics as more than a set of algorithmic procedures.

What is the purpose of Indicator 2a.MLL?
MLLs can and will reach grade-level standards when provided the appropriate scaffolds, supports, and opportunity to do so. 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 create conditions for new learning, and provide opportunities for teachers to observe, understand, and respond to learners' current knowledge.

Research or Standards connection for Indicator 2a:
- Common Core State Standards for Mathematics (CCSSM)
- High School Publishers' Criteria for the CCSSM (Spring 2013)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for K-8 Mathematics
- Achieve EQuIP Rubric for Lessons & Units
- Achieve Framework to Evaluate Cognitive Complexity in Mathematics Assessments
- CCSS Mathematics Curriculum Materials Analysis Project

Research or Standards connection for Indicator 2a.MLL:

- 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)
- Chu, H. & Hamburger, L. (2019). Designing mathematical interactions for English learners. *Mathematics Teaching in the Middle School, 24*(4), 218–225.
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- Hakuta, K., Butler, Y. G., & Witt, D. (2000). How long does it take English learners to attain proficiency? *The University of California Linguistic Minority Research Institute, (2000-1)*.
- Moschkovich, J. (2013). Principles and guidelines for equitable mathematics teaching practices and materials for English language learners. Journal of Urban Mathematics Education. 6(1). 45-57.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Saunders, W., Goldenberg, C., & Marcelletti, D. (2013). English language development: Guidelines for instruction. *American Educator, 37*(2), 13.
- Torff, B., & Murphy, A. (2020). Teachers' beliefs about English learners: Adding linguistic support to enhance academic rigor. *Phi Delta Kappan*, 101, 14-18.
- 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

Resources for Indicator 2a:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- Video: “Building Conceptual Understanding in Mathematics” (NCTM)
- Video: “Conceptual Understanding Excerpt” (The Hunt Institute)
- Review criterion 2a on page 9 of the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
- Concrete Representational Abstract: Instructional Sequence for Mathematics
- Reading: “Principles To Actions”, (NCTM) p. 42-48

Resources for Indicator 2a.MLL:

- Chval, K. & Renaldi, C. (2022). ELSF: Amplify and facilitate student curiosity about language. *English Learners Success Forum*. Retrieved from https://www.elsuccessforum.org/resources/amplify-and-facilitate-student-curiosity-about-language

Indicator 2a Guiding Questions:

Do the materials develop students’ conceptual understanding?
Do the materials provide opportunities for students to independently demonstrate conceptual understanding throughout the grade level?

Evidence Collection

For Indicator 2a:
Conceptual Understanding is a flexible web of connections and relationships within and between ideas, interpretations, and images of mathematical concepts that supports students in making sense of the main ideas of mathematics. Students with conceptual understanding can apply and adapt prior knowledge to new tasks.

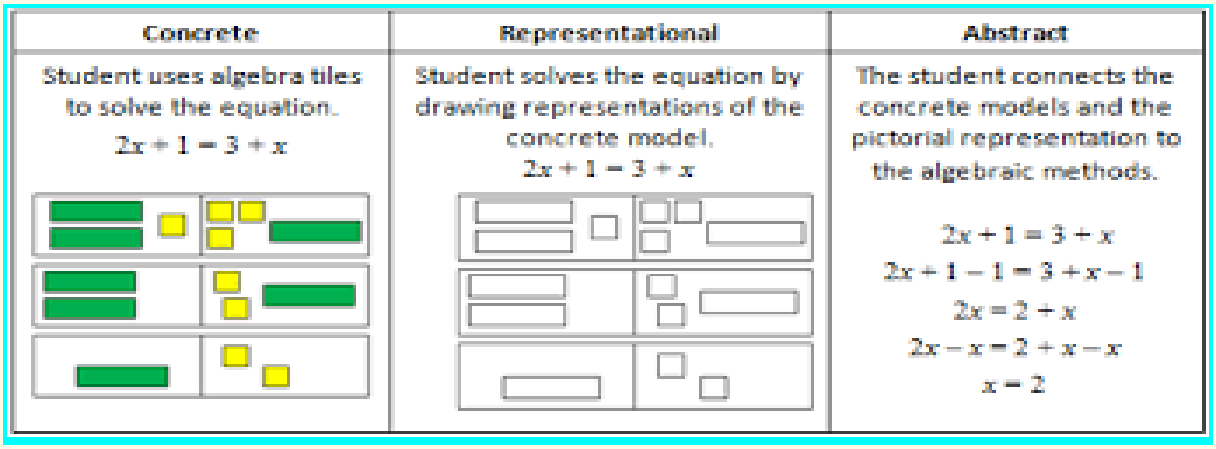
Select cluster(s) or standard(s) that specifically relate to conceptual understanding. Be aware that some cluster(s) and standard(s) lend themselves to more than one aspect of rigor. In such cases, look for evidence of conceptual understanding.

Look for the evidence in lessons, review lessons, chapter and/or unit assessments, homework assignments, concept checks (if included), hands-on activities (if included), investigations (if included), simple tasks and problems, and other areas that appear to be conceptual in nature.

Evaluate whether conceptual understanding present in lessons/chapters/units aligns to the aspect of rigor indicated by the standard(s).

Determine if the materials feature high-quality conceptual problems and conceptual discussion questions, including brief conceptual problems with low computational difficulty.

Determine if the materials offer opportunities for students to engage with concrete and representational (semi-concrete) representations, in writing and/or discussion, when developing conceptual understanding. For example:



Determine if the materials feature opportunities to identify correspondences across mathematical representations in order to further develop conceptual understanding.

- Example: Through the series, the materials do not just offer opportunities for students to engage with different families of functions through equations, tables, graphs, and contexts, but the materials offer opportunities for students to make connections between the different representations for the various families of functions.

Evidence must include specific examples from the instructional materials. If evidence is addressing clusters or standards that relate specifically to conceptual understanding, list the specific clusters/standards and explain how the evidence demonstrates conceptual understanding. If opportunities to develop conceptual understanding are missed, specifically list the clusters/standards/opportunities that are missed.

The use of concrete representations (manipulatives) does not necessarily indicate conceptual understanding. If evidence includes concrete and/or visual representations, explain how the representations are being used to develop/enhance conceptual understanding. For example, students using algebra tiles to factor quadratic expressions should be able to explain the connections between the algebra tiles, the process of factoring, and the corresponding algebraic representations.

Note whether the instructional materials include a specific section in units/chapters/lessons, etc that are specifically designed for conceptual understanding. Include Unit, Lesson, Lesson Part and page numbers for reference for all examples.

Examples include, but are not limited to:

Clusters/Standards that relate to Conceptual Understanding
N-RN.1 – Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents.
A-APR.B – Understand the relationship between zeros and factors of polynomials.
A-REI.A – Understand solving equations as a process of reasoning and explain the reasoning.

A-REI.10 – Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).
A-REI.11 – Explain why the x-coordinates of the points where the graphs of the equations y = f(x) and y = g(x) intersect are the solutions of the equation f(x) = g(x); find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.★
F-IF.A – Understand the concept of a function and use function notation.
F-LE.1 – Distinguish between situations that can be modeled with linear functions and with exponential functions.
G-SRT.2 – Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.
G-SRT.6 – Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.
S-ID.7 – Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.

For Indicator 2a.MLL:
In the Instructional Materials being reviewed:

- 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 all students in 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 student 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: table = furniture or a list of numbers showing the results of a calculation*).

Cluster Meeting

For the Indicator 2a cluster meeting:
Consider the following question(s) as evidence is synthesized:

- What does intentional development of conceptual understanding look like in materials?
- What specific evidence illustrates intentional development of conceptual understanding?
- How do the materials in the series enable students to reason in settings involving the careful application of concept definitions, relations, or representations?
- Do the materials attend to conceptual understanding throughout the series?
- Do the instructional materials provide opportunities for students to independently demonstrate conceptual understanding throughout the series?

For the Indicator 2a.MLL cluster meeting:

- Do teacher materials provide models, protocols, and plans to support developing conceptual understanding that keep in mind the specific supports and scaffolds needed by MLLs?
- 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 generic/basic sentence frames)?
- How do language supports provide opportunities to develop language using the four domains of language (speaking, listening, reading, and writing)?
- Do materials support opportunities for MLL students to revise and build on new learnings?

HS Math Criterion 2.1	Materials reflect the balances in the Standards and help students meet the Standards' rigorous expectations by giving appropriate attention to: developing students' conceptual understanding; procedural skill and fluency; and engaging applications.
Indicator 2b	**2b** Materials provide intentional opportunities for students to develop procedural skills and fluencies, especially where called for in specific content standards or clusters. **2b.MLL** Materials provide support for MLLs' full and complete participation in opportunities for students to develop procedural skills and fluencies

2b Scoring:

2 points	1 point	0 points
• Materials develop procedural skills and fluencies throughout the series. AND • Materials provide opportunities for students to independently demonstrate procedural skills and fluencies throughout the series.	• Materials do not develop procedural skills and fluencies throughout the series. OR • Materials do not provide opportunities for students to independently demonstrate procedural skills and fluencies throughout the series.	• Materials do not develop procedural skills and fluencies throughout the series. AND • Materials do not provide opportunities for students to independently demonstrate procedural skills and fluencies throughout the series.

2b.MLL Scoring:

2 points	1 point	0 points
• Materials consistently provide strategies and supports for MLLs to fully and completely participate in opportunities for students to develop procedural skills and fluencies.	• Materials provide strategies and supports for MLLs to participate in opportunities for students to develop procedural skills and fluencies, 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 fully and completely participate in opportunities for students to develop procedural skills and fluencies, but they are not employed consistently throughout the program.	• Materials do not provide strategies and supports for MLLs to fully and completely participate in opportunities for students to develop procedural skills and fluencies.

About this indicator:

What is the purpose of Indicator 2b?

This indicator, along with 2a, 2c, and 2d, determines the shift of Rigor. In order to meet the expectations of the standards materials must attend to three aspects of rigor, attending to a balance among conceptual understanding, procedural skills and fluency, and application as called for by the standards. Procedural skills and fluencies are the call for efficiency and accuracy in calculations. Students need to practice core skills in order to have access to more complex concepts and procedures.

What is the purpose of Indicator 2b.MLL?

MLLs can and will reach grade-level standards when provided the appropriate scaffolds, supports, and opportunity to do so. 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 create conditions for new learning, and provide opportunities for teachers to observe, understand, and respond to learners' current knowledge.

Research or Standards connection for Indicator 2b:

- Common Core State Standards for Mathematics (CCSSM)
- High School Publishers' Criteria for the CCSSM (Spring 2013)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for K-8 Mathematics
- Achieve EQuIP Rubric for Lessons & Units
- Achieve Framework to Evaluate Cognitive Complexity in Mathematics Assessments
- CCSS Mathematics Curriculum Materials Analysis Project

Research or Standards connection for Indicator 2b.MLL:

- 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)
- Chu, H. & Hamburger, L. (2019). Designing mathematical interactions for English learners. *Mathematics Teaching in the Middle School, 24*(4), 218–225.
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- Hakuta, K., Butler, Y. G., & Witt, D. (2000). How long does it take English learners to attain proficiency? *The University of California Linguistic Minority Research Institute, (2000-1)*.
- Moschkovich, J. (2013). Principles and guidelines for equitable mathematics teaching practices and materials for English language learners. Journal of Urban Mathematics Education. 6(1). 45-57.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Saunders, W., Goldenberg, C., & Marcelletti, D. (2013). English language development: Guidelines for instruction. *American Educator, 37*(2), 13.
- Torff, B., & Murphy, A. (2020). Teachers' beliefs about English learners: Adding linguistic support to enhance academic rigor. *Phi Delta Kappan*, 101, 14-18.
- 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

Resources for Indicator 2b:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- Review criterion 2b on page 9 of the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

Resources for Indicator 2b.MLL:

- Chval, K. & Renaldi, C. (2022). ELSF: Amplify and facilitate student curiosity about language. *English Learners Success Forum*. Retrieved from https://www.elsuccessforum.org/resources/amplify-and-facilitate-student-curiosity-about-language

Indicator 2b Guiding Question:

Do the instructional materials develop students' procedural skills and fluencies throughout the series as called for in the standards?

Do the instructional materials provide opportunities for students to independently demonstrate procedural skills and fluencies throughout the series?

Evidence Collection

For Indicator 2b:
Procedural skill includes knowing how and why an algorithm works.
Fluency includes: efficiency, accuracy, flexibility, and appropriate strategy selection.

Select cluster(s) or standard(s) that specifically relate to procedural skills. Be aware that some cluster(s) and standard(s) lend themselves to more than one aspect of rigor. In such cases, look for evidence of procedural skills.

Evaluate whether aspects of rigor present in lessons/chapters/units align to the aspect of rigor in the targeted standard(s).

Look for procedural problems and exercises that include cases in which students use algorithms efficiently/fluently. For example, solve the system $2x + 3y = -(1/2)x + 6 – y$ and $2x + 5 = y + 2$.

Evidence must include specific examples from the instructional materials. If opportunities to develop procedural skills are missed, specifically list the clusters/standards/opportunities that are missed. Note whether the instructional materials include a specific section in units/chapters/lessons, etc that are specifically designed for procedural skills. Include Unit, Lesson, Lesson Part and page numbers for reference for all examples.

Examples include, but are not limited to:

Clusters/Standards that relate to Procedural Skills
N-RN.2 – Rewrite expressions involving radicals and rational exponents using the properties of exponents.
A-SSE.2 – Use the structure of an expression to identify ways to rewrite it.

A-APR.1 – Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.
A-APR.6 – Rewrite simple rational expressions in different forms; write a(x)/b(x) in the form q(x) + r(x)/b(x), where a(x), b(x), q(x), and r(x) are polynomials with the degree of r(x) less than the degree of b(x), using inspection, long division, or, for the more complicated examples, a computer algebra system.
F-BF.4a – Solve an equation of the form f(x) = c for a simple function f that has an inverse and write an expression for the inverse. *For example, f(x) =2 x3 or f(x) = (x+1)/(x-1) for x ≠ 1.*
G-CO.12 - Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.).
G-GPE.4 – Use coordinates to prove simple geometric theorems algebraically.
G-GPE.5 – Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).
G-GPE.6 – Find the point on a directed line segment between two given points that partitions the segment in a given ratio.

For Indicator 2b.MLL:

In the Instructional Materials being reviewed:

- 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 all students in 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 student 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: table = furniture or a list of numbers showing the results of a calculation*).

Cluster Meeting

For the Indicator 2b cluster meeting:
Throughout the series, review evidence of opportunities for students to develop procedural skill and fluency in the materials completed by teachers.

Throughout the series, review evidence of opportunities for students to independently demonstrate procedural skill and fluency in the units as completed by teachers.

The Publishers' Criteria for high school states, "In higher grades, algebra is the language of much of mathematics. Like learning any language, we learn by using it.". In what ways do students have sufficient practice (algebraic or otherwise) in order to be adept/skilled with the operations of mathematics?

How do the materials develop procedural skills over a course? Over a series??

For the Indicator 2b.MLL cluster meeting:
- Do teacher materials provide models, protocols, and plans to support developing procedural skill and fluency that keep in mind the specific supports and scaffolds needed by MLLs?
- 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 generic/basic sentence frames)?
- How do language supports provide opportunities to develop language using the four domains of language (speaking, listening, reading, and writing)?
- Do materials support opportunities for MLL students to revise and build on new learnings?

HS Math Criterion 2.1	Materials reflect the balances in the Standards and help students meet the Standards' rigorous expectations by giving appropriate attention to: developing students' conceptual understanding; procedural skill and fluency; and engaging applications.
Indicator 2c	**2c** Materials support the intentional development of students' ability to utilize mathematical concepts and skills in engaging applications, especially where called for in specific content standards or clusters. **2c.MLL** Materials provide support for MLLs' full and complete participation in the intentional development of students' ability to utilize mathematical concepts and skills in engaging applications.

2c Scoring:

2 points	1 point	0 points
• Materials include multiple routine and non-routine applications of the mathematics throughout the series. AND • Materials provide opportunities for students to independently demonstrate multiple routine and non-routine applications of the mathematics throughout the series.	• Materials do not include multiple routine and non-routine applications of the mathematics throughout the series. OR • Materials do not provide opportunities for students to independently demonstrate multiple routine and non-routine applications of the mathematics throughout the series.	• Materials do not include multiple routine and non-routine applications of the mathematics throughout the series. AND • Materials do not provide opportunities for students to independently demonstrate multiple routine and non-routine applications of the mathematics throughout the series.

2c.MLL Scoring:

2 points	1 point	0 points
• Materials consistently provide strategies and supports for MLLs to fully and completely participate in the intentional development of students' ability to utilize mathematical concepts and skills in engaging applications.	• Materials provide strategies and supports for MLLs to participate in the intentional development of students' ability to utilize mathematical concepts and skills in engaging applications, but these supports do not consistently provide for full and complete participation by MLL students. OR • Materials provide some strategies and supports for	• Materials do not provide strategies and supports for MLLs to fully and completely participate in the intentional development of students' ability to utilize mathematical concepts and skills in engaging applications.

	MLLs to fully and completely participate in the intentional development of students' ability to utilize mathematical concepts and skills in engaging applications, but they are not employed consistently throughout the program.	

About this indicator:

What is the purpose of Indicator 2c?
This indicator, along with 2a, 2b, and 2d, determines the shift of Rigor. Materials should include activities with a variety of contexts for both routine and non-routine applications. Students should apply mathematical knowledge in real-world contexts to make meaning of and access the content.

What is the purpose of Indicator 2c.MLL?
MLLs can and will reach grade-level standards when provided the appropriate scaffolds, supports, and opportunity to do so. 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 create conditions for new learning, and provide opportunities for teachers to observe, understand, and respond to learners' current knowledge.

Research or Standards connection for Indicator 2c:
- Common Core State Standards for Mathematics (CCSSM)
- High School Publishers' Criteria for the CCSSM (Spring 2013)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for High School Mathematics
- Achieve EQuIP Rubric for Lessons & Units
- Achieve Framework to Evaluate Cognitive Complexity in Mathematics Assessments
- CCSS Mathematics Curriculum Materials Analysis Project

Research or Standards connection for Indicator 2c.MLL:

- 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)
- Chu, H. & Hamburger, L. (2019). Designing mathematical interactions for English learners. *Mathematics Teaching in the Middle School, 24*(4), 218–225.
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- Hakuta, K., Butler, Y. G., & Witt, D. (2000). How long does it take English learners to attain proficiency? *The University of California Linguistic Minority Research Institute, (2000-1)*.
- Moschkovich, J. (2013). Principles and guidelines for equitable mathematics teaching practices and materials for English language learners. Journal of Urban Mathematics Education. 6(1). 45-57.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Saunders, W., Goldenberg, C., & Marcelletti, D. (2013). English language development: Guidelines for instruction. *American Educator, 37*(2), 13.

- Torff, B., & Murphy, A. (2020). Teachers' beliefs about English learners: Adding linguistic support to enhance academic rigor. *Phi Delta Kappan*, 101, 14-18.
- 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

Resources for Indicator 2c:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- Review criterion 2c on page 10 of the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
- Reading: Chapter 1 of The GAIMME Report (A link to this report cannot be provided, but it can be downloaded by googling "The GAIMME Report".)
- Reading: "Math Modeling: Getting Started & Getting Solutions" (A link to this handbook cannot be provided, but it can be downloaded by googling "SIAM and Moody's modeling handbook".)
- Reading: "How to Identify Tasks that Engage Students in Mathematical Modeling NCTM-SIAM Committee on Modeling Across the Curriculum

Resources for Indicator 2c.MLL:

- Chval, K. & Renaldi, C. (2022). ELSF: Amplify and facilitate student curiosity about language. *English Learners Success Forum*. Retrieved from https://www.elsuccessforum.org/resources/amplify-and-facilitate-student-curiosity-about-language

Indicator 2c Guiding Questions:

Do the instructional materials develop students' ability to utilize mathematical concepts and skills in engaging applications throughout the series?

Do the instructional materials provide opportunities for students to independently demonstrate application of mathematical concepts and skills in engaging applications throughout the series?

Evidence Collection

For Indicator 2c:

Application problems often, but not always, present a real-world scenario. Applications take the form of problems to be worked on individually as well as classroom activities centered on application scenarios. Students have opportunities to both employ a prescribed mathematical strategy and choose their own strategy to find a solution.

Select cluster(s) or standard(s) that specifically address application of mathematics. Be aware that some cluster(s) and standard(s) lend themselves to more than one aspect of rigor. In such cases, look for evidence of application.

Determine if there is a variety of contextual problems, including non-routine problems, that develop the mathematics of the non-plus standards.

Look for evidence where application problems particularly stress applying the content of the non-plus standards.

Consider if applications build greater levels of complexity over the series.

Determine if the materials include an ample number of contextual problems that develop the mathematics of the course.

Note when the materials:

- afford opportunities for students to engage in and practice problem solving,
- allow or require students to make their own assumptions or simplifications in order to model a situation mathematically, and
- provide problems to be worked individually as well as classroom activities centered on application scenarios.

Evidence must include specific examples from the instructional materials. If opportunities for application are missed, specifically list the clusters/standards/ opportunities that are missed. Note whether the instructional materials include a specific section in units/chapters/lessons, etc that are specifically designed for application. Include Unit, Lesson, Lesson Part and page numbers for reference for all examples.

Examples include, but are not limited to:

Clusters/Standards that relate to Applications
N-Q.A – Reason quantitatively and use units to solve problems.
A-SSE.3 – Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.★
A-CED.3 - Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.
A-REI.11 – Explain why the x-coordinates of the points where the graphs of the equations y = f(x) and y = g(x) intersect are the solutions of the equation f(x) = g(x); find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.★
F-IF.B – Interpret functions that arise in applications in terms of the context.
F-BF.1 – Write a function that describes a relationship between two quantities.★
G-SRT.8 – Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.★
G-GMD.3 – Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.★
G-MG.2 - Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).*
S-ID.2 – Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

S-CP.7 – Apply the Addition Rule, P(A or B) = P(A) + P(B) - P(A and B), and interpret the answer in terms of the model.

For Indicator 2c.MLL:
In the Instructional Materials being reviewed:

- 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 all students in 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 student 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: table = furniture or a list of numbers showing the results of a calculation*).

Cluster Meeting

For the Indicator 2c cluster meeting:
Consider the following question(s) as evidence is synthesized:

- How do the materials include multiple routine and non-routine applications throughout the series?
- How do the materials provide opportunities for students to independently demonstrate multiple routine and non-routine applications throughout the series?
- Do the materials have a consistent lesson structure for including multiple routine and non-routine applications?

- Based on the student-facing materials, how do students independently demonstrate multiple routine and non-routine applications?

For the Indicator 2c.MLL cluster meeting:

- Do teacher materials provide models, protocols, and plans to support engaging applications of mathematics that keep in mind the specific supports and scaffolds needed by MLLs?
- 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 generic/basic sentence frames)?
- How do language supports provide opportunities to develop language using the four domains of language (speaking, listening, reading, and writing)?
- Do materials support opportunities for MLL students to revise and build on new learnings?

HS Math Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 2e	**2e** Materials support the intentional development of MP1: Make sense of problems and persevere in solving them, for students, in connection to the high school content standards, as required by the mathematical practice standards. **2e.MLL** Materials provide support for MLLs' full and complete participation in the intentional development of MP1: Make sense of problems and persevere in solving them, for students, in connection to the high school content standards, as expected by the mathematical practice standards.

2e Scoring:	
1 point • There is intentional development of MP1 to meet its full intent in connection to course-level content across the series.	0 points • There is not intentional development of MP1 to meet its full intent in connection to course-level content across the series.

2e.MLL Scoring:		
2 points • Materials consistently provide strategies and supports for MLLs to fully and completely participate in the intentional development of MP1: Make sense of problems and persevere in solving them, for students, in connection to the high school content standards, as expected by the mathematical practice standards.	1 point • Materials provide strategies and supports for MLLs to participate in the intentional development of MP1, 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 fully and completely participate in the intentional development of MP1, but they are not employed consistently throughout the program.	0 points • Materials do not provide strategies and supports for MLLs full and complete participation in the intentional development of MP1.

About this indicator:

What is the purpose of Indicator 2e?
This indicator, along with 2f, 2g, 2h, 2i, 2j, 2k, and 2l, determines the meaningful integration of the Standards for Mathematical Practice. This indicator specifically looks at MP1 which addresses making sense of problems and

persevere in solving them. It assesses whether the provided opportunities for student engagement with the math practices are a) used to enrich the mathematics content of the courses and b) fully developed across the series to meet the level of expectation of high school mathematical study.

What is the purpose of Indicator 2e.MLL?

MLLs can and will reach grade-level standards when provided the appropriate scaffolds, supports, and opportunity to do so. 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 create conditions for new learning, and provide opportunities for teachers to observe, understand, and respond to learners' current knowledge.

Research or Standards connection for Indicator 2e:

- Common Core State Standards for Mathematics (CCSSM)
- High School Publishers' Criteria for the CCSSM (Spring 2013)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for High School Mathematics
- Achieve EQuIP Rubric for Lessons & Units
- CCSS Mathematics Curriculum Materials Analysis Project

Research or Standards connection for Indicator 2e.MLL:

- 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)
- Chu, H. & Hamburger, L. (2019). Designing mathematical interactions for English learners. *Mathematics Teaching in the Middle School, 24*(4), 218–225.
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- Hakuta, K., Butler, Y. G., & Witt, D. (2000). How long does it take English learners to attain proficiency? *The University of California Linguistic Minority Research Institute, (2000-1)*.
- Moschkovich, J. (2013). Principles and guidelines for equitable mathematics teaching practices and materials for English language learners. Journal of Urban Mathematics Education. 6(1). 45-57.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Saunders, W., Goldenberg, C., & Marcelletti, D. (2013). English language development: Guidelines for instruction. *American Educator, 37*(2), 13.
- Torff, B., & Murphy, A. (2020). Teachers' beliefs about English learners: Adding linguistic support to enhance academic rigor. *Phi Delta Kappan*, 101, 14-18.
- 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

Resources for Indicator 2e:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP1: Make sense of problems and persevere in solving them
- This compilation document

Resources for Indicator 2e.MLL:

- Chval, K. & Renaldi, C. (2022). ELSF: Amplify and facilitate student curiosity about language. *English Learners Success Forum*. Retrieved from https://www.elsuccessforum.org/resources/amplify-and-facilitate-student-curiosity-about-language

Indicator 2e Guiding Questions:

Across the series, is MP1 used to enrich the mathematical content?

Across the series, is there intentional development of MP1 that reaches the full intent of the MP?

Evidence Collection

For Indicator 2e:

Look at all lessons in teacher's manuals and in the student materials to ensure that MP1 is occurring throughout the courses.

Look in unit overviews, scope and sequence charts, and/or other instructional guides to ensure that MP1 is occurring throughout the courses of the series.

Record any instances where MP1 is misidentified in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part addresses that, or vice versa).

To check that MP1 is being used to enrich the mathematics content and are fully developed to meet the level of expectation for high school:

Look at lessons, assessments and any examples/descriptions of anticipated student work. Look for places that require students to:

- analyze and make sense of problems
- find solution pathways
- engage in problem solving
- persevere in solving problems
- monitor and evaluate their progress in solving problems
- determine if their answers make sense
- reflect on and revise their problem solving strategies
- check their answers with different methods

Look at teacher directions and how teachers are guided to carry out the lessons. In particular, look for places where teachers are expected to:

- pose rich problems
- provide time for students to make sense of problems
- provide opportunities for students to engage in problem solving

Check to see if any materials focus only on the Standards for Mathematical Practice (therefore, they are not being used to enrich the mathematical content). Record any instances where the Standards for Mathematical Practice are not being used to enrich course-level, mathematics content.

Verify that student engagement with the lessons and assessments would require use of the Standards for Mathematical Practice so that across the series students will develop their use of the MP to the full intent of the standards.

Record any instances where a MP was identified, however, engagement with the lesson or task would only require minimal or trivial use of the indicated MP.

If the MP is only located in a specific part of the teacher's manuals (e.g. the teacher-led portion of the lesson), you will need to look at other sections (e.g. independent work, homework, assessments) to ensure that the MP is intentionally used to enrich the content. Look not only where the MP is identified, but also look at places where it is not identified.

For Indicator 2e.MLL:
In the Instructional Materials being reviewed:

- 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 all students in 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 student 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: table = furniture or a list of numbers showing the results of a calculation*).

Cluster Meeting

For the Indicator 2e cluster meeting:
Consider the following question(s) as evidence is synthesized:

- When is the MP1 identified and connected to series-level mathematical content?

- In what ways do the students use the MP to its full intent across the series?
- In what ways, if any, do the materials provided for teachers enable students to engage with the MP?

For the Indicator 2e.MLL cluster meeting:

- 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 generic/basic sentence frames)?
- How do language supports provide opportunities to develop language using the four domains of language (speaking, listening, reading, and writing)?
- Do materials support opportunities for MLL students to revise and build on new learnings?

HS Math Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 2f	**2f** Materials support the intentional development of MP2: Reason abstractly and quantitatively, for students, in connection to the high school content standards, as required by the mathematical practice standards. **2f.MLL** Materials provide support for MLLs' full and complete participation in the intentional development of MP2: Reason abstractly and quantitatively, for students, in connection to the high school content standards, as expected by the mathematical practice standards.

2f Scoring:	
1 point • There is intentional development of MP2 to meet its full intent in connection to course-level content across the series.	0 points • There is not intentional development of MP2 to meet its full intent in connection to course-level content across the series.

2f.MLL Scoring:		
2 points • Materials consistently provide strategies and supports for MLLs to fully and completely participate in the intentional development of MP2: Reason abstractly and quantitatively, for students, in connection to the high school content standards, as expected by the mathematical practice standards.	1 point • Materials provide strategies and supports for MLLs to participate in the intentional development of MP2, 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 fully and completely participate in the intentional development of MP2, but they are not employed consistently throughout the program.	0 points • Materials do not provide strategies and supports for MLLs full and complete participation in the intentional development of MP2.

About this indicator:

What is the purpose of Indicator 2f?
This indicator, along with 2e, 2g, 2h, 2i, 2j, 2k, and 2l, determines the meaningful integration of the Standards for Mathematical Practice. This indicator specifically looks at MP2 which addresses the practices of reasoning. It

assesses whether the provided opportunities for student engagement with the math practices are a) used to enrich the mathematics content of the courses and b) fully developed across the series to meet the level of expectation of high school mathematical study.

What is the purpose of Indicator 2f.MLL?

MLLs can and will reach grade-level standards when provided the appropriate scaffolds, supports, and opportunity to do so. 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 create conditions for new learning, and provide opportunities for teachers to observe, understand, and respond to learners' current knowledge.

Research or Standards connection for Indicator 2f:

- Common Core State Standards for Mathematics (CCSSM)
- High School Publishers' Criteria for the CCSSM (Spring 2013)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for High School Mathematics
- Achieve EQuIP Rubric for Lessons & Units
- CCSS Mathematics Curriculum Materials Analysis Project

Research or Standards connection for Indicator 2f.MLL:

- 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)
- Chu, H. & Hamburger, L. (2019). Designing mathematical interactions for English learners. *Mathematics Teaching in the Middle School, 24*(4), 218–225.
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- Hakuta, K., Butler, Y. G., & Witt, D. (2000). How long does it take English learners to attain proficiency? *The University of California Linguistic Minority Research Institute, (2000-1)*.
- Moschkovich, J. (2013). Principles and guidelines for equitable mathematics teaching practices and materials for English language learners. Journal of Urban Mathematics Education. 6(1). 45-57.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Saunders, W., Goldenberg, C., & Marcelletti, D. (2013). English language development: Guidelines for instruction. *American Educator, 37*(2), 13.
- Torff, B., & Murphy, A. (2020). Teachers' beliefs about English learners: Adding linguistic support to enhance academic rigor. *Phi Delta Kappan*, 101, 14-18.
- 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

Resources for Indicator 2f:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP2: Reason abstractly and quantitatively
- This compilation document

Resources for Indicator 2f.MLL:

- Chval, K. & Renaldi, C. (2022). ELSF: Amplify and facilitate student curiosity about language. *English Learners Success Forum*. Retrieved from https://www.elsuccessforum.org/resources/amplify-and-facilitate-student-curiosity-about-language

Indicator 2f Guiding Questions:

Across the series, is MP2 used to enrich the mathematical content?

Across the series, is there intentional development of MP2 that reaches the full intent of the MP?

Evidence Collection

For Indicator 2f:
Look at all lessons in teacher's manuals and in the student materials to ensure that MP2 is occurring throughout the courses.

Look in unit overviews, scope and sequence charts, and/or other instructional guides to ensure that MP2 is occurring throughout the courses of the series.

Record any instances where MP2 is misidentified in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part addresses that, or vice versa).

To check that MP2 is being used to enrich the mathematics content and is fully developed to meet the level of expectation for high school:

Look at lessons, assessments and any examples/descriptions of anticipated student work. Look for places that require students to:

- represent situations symbolically
- consider units involved in a problem and attend to the meaning of quantities
- understand the relationships between problem scenarios and mathematical representations
- explain/discuss what the numbers or symbols in an expression/equation represent
- determine if their answers make sense

Look at teacher directions and how teachers are guided to carry out the lessons. In particular, look for places where teachers are expected to:

- ensure students make connections between mathematical representations and scenarios
- provide opportunities for students to engage in active mathematical discourse
- ask clarifying and probing questions
- model the use of mathematical symbols and notation
- support students in analyzing quantities and their relationships
- facilitate connections between multiple representations

Check to see if any materials focus only on the Standards for Mathematical Practice (therefore, they are not being used to enrich the mathematical content). Record any instances where the Standards for Mathematical Practice are not being used to enrich course-level, mathematics content.

Verify that student engagement with the lessons and assessments would require use of the Standards for Mathematical Practice so that across the series students will develop their use of the MP to the full intent of the standards.

Record any instances where an MP was identified, however, engagement with the lesson or task would only require minimal or trivial use of the indicated MP.

If you found that the MP is only located in a specific part of the teacher's manuals (e.g. the teacher-led portion of the lesson), you will need to look at other sections (e.g. independent work, homework, assessments) to ensure that the MP is intentionally used to enrich the content. Look not only where the MP is identified in the materials, but also look at places where it is not identified.

For Indicator 2f.MLL:
In the Instructional Materials being reviewed:

- 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 all students in 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 student 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: table = furniture or a list of numbers showing the results of a calculation*).

Cluster Meeting

For the Indicator 2f cluster meeting:
Consider the following question(s) as evidence is synthesized:

- When is MP2 identified and connected to series-level mathematical content?
- In what ways do the students use the MP to its full intent across the series?
- In what ways, if any, do the materials provided for teachers enable students to engage with the MP?

Discussion questions for the Indicator 2f.MLL cluster meeting:

- 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 generic/basic sentence frames)?
- How do language supports provide opportunities to develop language using the four domains of language (speaking, listening, reading, and writing)?
- Do materials support opportunities for MLL students to revise and build on new learnings?

HS Math Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 2g	**2g** Materials support the intentional development of MP3: Construct viable arguments and critique the reasoning of others, for students, in connection to the high school content standards, as required by the mathematical practice standards. **2g.MLL** Materials provide support for MLLs' full and complete participation in the intentional development of MP3: Construct viable arguments and critique the reasoning of others, in connection to the high school content standards, as required by the mathematical practice standards.

2g Scoring:	
1 point • There is intentional development of MP3 to meet its full intent in connection to course-level content across the series.	0 points • There is not intentional development of MP3 to meet its full intent in connection to course-level content across the series.

2g.MLL Scoring:		
2 points • Materials consistently provide strategies and supports for MLLs to fully and completely participate in the intentional development of MP3: Construct viable arguments and critique the reasoning of others, in connection to the high school content standards, as required by the mathematical practice standards.	1 point • Materials provide strategies and supports for MLLs to participate in the intentional development of MP3, 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 fully and completely participate in the intentional development of MP3, but they are not employed consistently throughout the program.	0 points • Materials do not provide strategies and supports for MLLs full and complete participation in the intentional development of MP3.

About this indicator:

What is the purpose of Indicator 2g?

This indicator, along with 2e, 2f, 2h, 2i, 2j, 2k, and 2l, determines the meaningful integration of the Standards for Mathematical Practice. This indicator specifically looks at MP3 which addresses the practice of reasoning and

explaining. It assesses whether the provided opportunities for student engagement with the math practices are a) used to enrich the mathematics content of the courses and b) fully developed across the series to meet the level of expectation of high school mathematical study.

What is the purpose of Indicator 2g.MLL?

MLLs can and will reach grade-level standards when provided the appropriate scaffolds, supports, and opportunity to do so. 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 create conditions for new learning, and provide opportunities for teachers to observe, understand, and respond to learners' current knowledge.

Research or Standards connection for Indicator 2g:

- Common Core State Standards for Mathematics (CCSSM)
- High School Publishers' Criteria for the CCSSM (Spring 2013)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for High School Mathematics
- Achieve EQuIP Rubric for Lessons & Units
- CCSS Mathematics Curriculum Materials Analysis Project

Research or Standards connection for Indicator 2g.MLL:

- 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)
- Chu, H. & Hamburger, L. (2019). Designing mathematical interactions for English learners. *Mathematics Teaching in the Middle School, 24*(4), 218–225.
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- Hakuta, K., Butler, Y. G., & Witt, D. (2000). How long does it take English learners to attain proficiency? *The University of California Linguistic Minority Research Institute, (2000-1)*.
- Moschkovich, J. (2013). Principles and guidelines for equitable mathematics teaching practices and materials for English language learners. Journal of Urban Mathematics Education. 6(1). 45-57.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Saunders, W., Goldenberg, C., & Marcelletti, D. (2013). English language development: Guidelines for instruction. *American Educator, 37*(2), 13.
- Torff, B., & Murphy, A. (2020). Teachers' beliefs about English learners: Adding linguistic support to enhance academic rigor. *Phi Delta Kappan*, 101, 14-18.
- 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

Resources for Indicator 2g:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP3: Construct viable arguments and critique the reasoning of others
- This compilation document

Resources for Indicator 2g.MLL:

- Chval, K. & Renaldi, C. (2022). ELSF: Amplify and facilitate student curiosity about language. *English Learners Success Forum*. Retrieved from https://www.elsuccessforum.org/resources/amplify-and-facilitate-student-curiosity-about-language

Indicator 2g Guiding Questions:

Across the series, is MP3 used to enrich the mathematical content?

Across the series, is there intentional development of MP3 that reaches the full intent of the MPs?

Evidence Collection

For Indicator 2g:
Look at all lessons in teacher's manuals and in the student materials to ensure that MP3 is occurring throughout the courses.

Look in unit overviews, scope and sequence charts, and/or other instructional guides to ensure that MP3 is occurring throughout the courses of the series.

Record any instances where MP3 is misidentified in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part addresses that, or vice versa).

To check that MP3 is being used to enrich the mathematics content and are fully developed to meet the level of expectation for high school:

Look at lessons, assessments and any examples/descriptions of anticipated student work. Look for places that require students to:

- explain/justify their reasoning
- construct mathematical arguments.
- create their own conjectures
- listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments
- perform error analysis of provided student work/solutions/arguments.

Look at teacher directions and how teachers are guided to carry out the lessons. In particular, look for places where teachers are expected to:

- ensure students make connections between mathematical representations and scenarios
- provide opportunities for students to engage in active mathematical discourse
- ask clarifying and probing questions
- help students compare methods and strategies.

Check to see if any materials focus only on the Standards for Mathematical Practice (therefore, they are not being used to enrich the mathematical content). Record any instances where the Standards for Mathematical Practice are not being used to enrich course-level, mathematics content.

Verify that student engagement with the lessons and assessments would require use of the Standards for Mathematical Practice so that across the series students will develop their use of the MP to the full intent of the standards.

Record any instances where an MP was identified, however, engagement with the lesson or task would only require minimal or trivial use of the indicated MP.

If you found that the MP is only located in a specific part of the teacher's manuals (e.g. the teacher-led portion of the lesson), you will need to look at other sections (e.g. independent work, homework, assessments) to ensure that the MP is intentionally used to enrich the content. Look not only where the MP is identified in the materials, but also look at places where it is not identified. It may help to search for keywords like conjecture, explain, justify, discuss, analyze, ask, and clarify.

For Indicator 2g.MLL:
In the Instructional Materials being reviewed:

- 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 all students in 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 student 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: table = furniture or a list of numbers showing the results of a calculation*).

Cluster Meeting

For the Indicator 2g cluster meeting:
Consider the following question(s) as evidence is synthesized:

- When is MP3 identified and connected to the series-level mathematical content?
- In what ways do the students use MP3 to its full intent across the series?
- In what ways, if any, do the materials provided for teachers enable students to engage with MP3?

For the Indicator 2g.MLL cluster meeting:

- 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 generic/basic sentence frames)?
- How do language supports provide opportunities to develop language using the four domains of language (speaking, listening, reading, and writing)?
- Do materials support opportunities for MLL students to revise and build on new learnings?

HS Math Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 2h	**2h** Materials support the intentional development of MP4: Model with mathematics, for students, in connection to the high school content standards, as required by the mathematical practice standards. **2h.MLL** Materials provide support for MLLs' full and complete participation in the intentional development of MP4: Model with mathematics, for students, in connection to the high school content standards, as required by the mathematical practice standards.

2h Scoring:	
1 point • There is intentional development of MP4 to meet its full intent in connection to course-level content across the series.	0 points • There is not intentional development of MP4 to meet its full intent in connection to course-level content across the series.

2h.MLL Scoring:		
2 points • Materials consistently provide strategies and supports for MLLs to fully and completely participate in the intentional development of MP4: Model with mathematics, for students, in connection to the high school content standards, as required by the mathematical practice standards.	1 point • Materials provide strategies and supports for MLLs to participate in the intentional development of MP4, 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 fully and completely participate in the intentional development of MP4, but they are not employed consistently throughout the program.	0 points • Materials do not provide strategies and supports for MLLs full and complete participation in the intentional development of MP4.

About this indicator:

What is the purpose of Indicator 2h?
This indicator, along with 2e, 2f, 2g, 2i, 2j, 2k, and 2l, determines the meaningful integration of the Standards for Mathematical Practice. This indicator specifically looks at MP4 which addresses mathematical modeling. It assesses whether the provided opportunities for student engagement with the math practices are a) used to

enrich the mathematics content of the courses and b) fully developed across the series to meet the level of expectation of high school mathematical study.

What is the purpose of Indicator 2h.MLL?

MLLs can and will reach grade-level standards when provided the appropriate scaffolds, supports, and opportunity to do so. 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 create conditions for new learning, and provide opportunities for teachers to observe, understand, and respond to learners' current knowledge.

Research or Standards connection for Indicator 2h:

- Common Core State Standards for Mathematics (CCSSM)
- High School Publishers' Criteria for the CCSSM (Spring 2013)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for High School Mathematics
- Achieve EQuIP Rubric for Lessons & Units
- CCSS Mathematics Curriculum Materials Analysis Project

Research or Standards connection for Indicator 2h.MLL:

- 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)
- Chu, H. & Hamburger, L. (2019). Designing mathematical interactions for English learners. *Mathematics Teaching in the Middle School, 24*(4), 218–225.
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- Hakuta, K., Butler, Y. G., & Witt, D. (2000). How long does it take English learners to attain proficiency? *The University of California Linguistic Minority Research Institute, (2000-1)*.
- Moschkovich, J. (2013). Principles and guidelines for equitable mathematics teaching practices and materials for English language learners. Journal of Urban Mathematics Education. 6(1). 45-57.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Saunders, W., Goldenberg, C., & Marcelletti, D. (2013). English language development: Guidelines for instruction. *American Educator, 37*(2), 13.
- Torff, B., & Murphy, A. (2020). Teachers' beliefs about English learners: Adding linguistic support to enhance academic rigor. *Phi Delta Kappan*, 101, 14-18.
- 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

Resources for Indicator 2h:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP4: Model with mathematics
- This compilation document

Resources for Indicator 2h.MLL:

- Chval, K. & Renaldi, C. (2022). ELSF: Amplify and facilitate student curiosity about language. *English Learners Success Forum*. Retrieved from https://www.elsuccessforum.org/resources/amplify-and-facilitate-student-curiosity-about-language

Indicator 2h Guiding Questions:

Across the series, is MP4 used to enrich the mathematical content?

Across the series, is there intentional development of MP4 that reaches the full intent of the MPs?

Evidence Collection

For Indicator 2h:

Note: If all aspects of the modeling cycle are present in the materials, then the materials meet the full intent of MP4.

Look at all lessons in teacher's manuals and in the student materials to ensure that MP4 is occurring throughout the courses.

Look in unit overviews, scope and sequence charts, and/or other instructional guides to ensure that MP4 is occurring throughout the courses of the series.

Record any instances where MP4 is misidentified in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part addresses that, or vice versa).

To check that MP4 is being used to enrich the mathematics content and are fully developed to meet the level of expectation for high school:

Look at lessons, assessments and any examples/descriptions of anticipated student work. Look for places that require students to:

- engage in the modeling cycle
- apply prior knowledge to new problems
- identify important relationships and map relationships with tables, diagrams, graphs, rules, etc.
- draw conclusions from solutions as they pertain to a situation

Look at teacher directions and how teachers are guided to carry out the lessons. In particular, look for places where teachers are expected to:

- Pose problems connected to previous concepts
- Provide a variety of real world contexts
- Provide meaningful, real-world, authentic performance tasks
- Promote discourse and investigation that could lead to refining and/or revising models

Check to see if any materials focus only on the Standards for Mathematical Practice (therefore, they are not being used to enrich the mathematical content). Record any instances where the Standards for Mathematical Practice are not being used to enrich course-level, mathematics content.

Verify that student engagement with the lessons and assessments would require use of the Standards for Mathematical Practice so that across the series students will develop their use of the MP to the full intent of the standards.

Record any instances where an MP was identified, however, engagement with the lesson or task would only require minimal or trivial use of the indicated MP.

If you found that the MP is only located in a specific part of the teacher's manuals (e.g. the teacher-led portion of the lesson), you will need to look at other sections (e.g. independent work, homework, assessments) to ensure that the MP is intentionally used to enrich the content. Look not only where the MP is identified in the materials, but also look at places where it is not identified.

For Indicator 2h.MLL:
In the Instructional Materials being reviewed:

- 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 all students in 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 student 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: table = furniture or a list of numbers showing the results of a calculation*).

Cluster Meeting

For the Indicator 2h cluster meeting:
Consider the following question(s) as evidence is synthesized:

- When is MP4 identified and connected to series-level mathematical content?
- In what ways do the students use the MP to its full intent across the series?
- In what ways, if any, do the materials provided for teachers enable students to engage with the MP?

For the Indicator 2h.MLL cluster meeting:

- 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 generic/basic sentence frames)?
- How do language supports provide opportunities to develop language using the four domains of language (speaking, listening, reading, and writing)?
- Do materials support opportunities for MLL students to revise and build on new learnings?

HS Math Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 2i	**2i** Materials support the intentional development of MP5: Use appropriate tools strategically, for students, in connection to the high school content standards, as required by the mathematical practice standards **2i.MLL** Materials provide support for MLLs' full and complete participation in the intentional development of MP5: Choose tools strategically, for students, in connection to the high school content standards, as required by the mathematical practice standards.

2i Scoring:	
1 point • There is intentional development of MP5 to meet its full intent in connection to course-level content across the series.	0 points • There is not intentional development of MP5 to meet its full intent in connection to course-level content across the series.

2i.MLL Scoring:		
2 points • Materials consistently provide strategies and supports for MLLs to fully and completely	1 point • Materials provide strategies and supports for MLLs to participate in the intentional development	0 points • Materials do not provide strategies and supports for MLLs full and complete

participate in the intentional development of MP5: Choose tools strategically, for students, in connection to the high school content standards, as required by the mathematical practice standards.	of MP5, 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 fully and completely participate in the intentional development of MP5, but they are not employed consistently throughout the program.	participation in the intentional development of MP5.

About this indicator:

What is the purpose of Indicator 2i?

This indicator, along with 2e, 2f, 2g, 2h, 2j, 2k, and 2l, determines the meaningful integration of the Standards for Mathematical Practice. This indicator specifically looks at MP5 which addresses the use of appropriate tools. It assesses whether the provided opportunities for student engagement with the math practices are a) used to enrich the mathematics content of the courses and b) fully developed across the series to meet the level of expectation of high school mathematical study.

What is the purpose of Indicator 2i.MLL?

MLLs can and will reach grade-level standards when provided the appropriate scaffolds, supports, and opportunity to do so. 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 create conditions for new learning, and provide opportunities for teachers to observe, understand, and respond to learners' current knowledge.

Research or Standards connection for Indicator 2i:

- Common Core State Standards for Mathematics (CCSSM)
- High School Publishers' Criteria for the CCSSM (Spring 2013)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for High School Mathematics
- Achieve EQuIP Rubric for Lessons & Units
- CCSS Mathematics Curriculum Materials Analysis Project

Research or Standards connection for Indicator 2i.MLL:

- 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)
- Chu, H. & Hamburger, L. (2019). Designing mathematical interactions for English learners. *Mathematics Teaching in the Middle School, 24*(4), 218–225.
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- Hakuta, K., Butler, Y. G., & Witt, D. (2000). How long does it take English learners to attain proficiency? *The University of California Linguistic Minority Research Institute, (2000-1)*.
- Moschkovich, J. (2013). Principles and guidelines for equitable mathematics teaching practices and materials for English language learners. Journal of Urban Mathematics Education. 6(1). 45-57.

- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Saunders, W., Goldenberg, C., & Marcelletti, D. (2013). English language development: Guidelines for instruction. *American Educator, 37*(2), 13.
- Torff, B., & Murphy, A. (2020). Teachers' beliefs about English learners: Adding linguistic support to enhance academic rigor. *Phi Delta Kappan*, 101, 14-18.
- 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

Resources for Indicator 2i:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP5: Use appropriate tools strategically
- This compilation document

Resources for Indicator 2i.MLL:

- Chval, K. & Renaldi, C. (2022). ELSF: Amplify and facilitate student curiosity about language. *English Learners Success Forum*. Retrieved from https://www.elsuccessforum.org/resources/amplify-and-facilitate-student-curiosity-about-language

Indicator 2i Guiding Questions:

Across the series, is MP5 used to enrich the mathematical content?

Across the series, is there intentional development of MP5 that reaches the full intent of the MPs?

Evidence Collection

For Indicator 2i:

Look at all lessons in teacher's manuals and in the student materials to ensure that MP 5 is occurring throughout the courses.

Look in unit overviews, scope and sequence charts, and/or other instructional guides to ensure that MP5 is occurring throughout the courses of the series.

Record any instances where MP5 is misidentified in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part addresses that, or vice versa).

To check that MP5 is being used to enrich the mathematics content and are fully developed to meet the level of expectation for high school:

Look at lessons, assessments and any examples/descriptions of anticipated student work. Look for places that require students to:

- choose appropriate tools
- use multiple tools to represent information in a situation
- create and use models to represent
- reflect on whether the results make sense, possibly improving or revising the model
  *also consider whether the materials encourage opportunities for students to use technological tools to explore and deepen their understanding of concepts

Look at teacher directions and how teachers are guided to carry out the lessons. In particular, look for places where teachers are expected to:

- Make a variety of tools available
- Allow student to have choice when selecting tools
- Model tools effectively, including their benefits and limitations
- Encourage the use of multiple tools for communication, calculation, investigation, sense-making, etc.

Check to see if any materials focus only on the Standards for Mathematical Practice (therefore, they are not being used to enrich the mathematical content). Record any instances where the Standards for Mathematical Practice are not being used to enrich course-level, mathematics content.

Verify that student engagement with the lessons and assessments would require use of the Standards for Mathematical Practice so that across the series students will develop their use of the MP to the full intent of the standards.

Record any instances where an MP was identified, however, engagement with the lesson or task would only require minimal or trivial use of the indicated MP.

If you found that the MP is only located in a specific part of the teacher's manuals (e.g. the teacher-led portion of the lesson), you will need to look at other sections (e.g. independent work, homework, assessments) to ensure that the MP is intentionally used to enrich the content. Look not only where the MP is identified in the materials, but also look at places where it is not identified.

For Indicator 2i.MLL:

In the Instructional Materials being reviewed:

- 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 all students in 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 student 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: table = furniture or a list of numbers showing the results of a calculation*)

Cluster Meeting

For the Indicator 2i cluster meeting:
Consider the following question(s) as evidence is synthesized:

- When is the MP5 identified and connected to series-level mathematical content?
- In what ways do the students use the MP to its full intent across the series?
- In what ways, if any, do the materials provided for teachers enable students to engage with the MP?

For the Indicator 2i.MLL cluster meeting:

- 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 generic/basic sentence frames)?
- How do language supports provide opportunities to develop language using the four domains of language (speaking, listening, reading, and writing)?
- Do materials support opportunities for MLL students to revise and build on new learnings?

HS Math Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 2j	**2j** Materials support the intentional development of MP6: Attend to precision, for students, in connection to the high school content standards, as required by the mathematical practice standards. **2j.MLL** Materials provide support for MLLs' full and complete participation in the intentional development of MP6: Attend to precision, for students, in connection to the high school content standards, as required by the mathematical practice standards.

2j Scoring:	
1 point • There is intentional development of MP6 to meet its full intent in connection to course-level content across the series.	0 points • There is not intentional development of MP6 to meet its full intent in connection to course-level content across the series.

2j.MLL Scoring:		
2 points • Materials consistently provide strategies and supports for MLLs to fully and completely participate in the intentional development of MP6: Attend to precision, for students, in connection to the high school content standards, as required by the mathematical practice standards.	1 point • Materials provide strategies and supports for MLLs to participate in the intentional development of MP6, 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 fully and completely participate in the intentional development of MP6, but they are not employed consistently throughout the program.	0 points • Materials do not provide strategies and supports for MLLs full and complete participation in the intentional development of MP6.

About this indicator:

What is the purpose of Indicator 2j?
This indicator, along with 2e, 2f, 2g, 2h, 2i, 2k, and 2l, determines the meaningful integration of the Standards for Mathematical Practice. This indicator specifically looks at MP6 which addresses attending to precision. It

assesses whether the provided opportunities for student engagement with the math practices are a) used to enrich the mathematics content of the courses and b) fully developed across the series to meet the level of expectation of high school mathematical study.

What is the purpose of Indicator 2j.MLL?

MLLs can and will reach grade-level standards when provided the appropriate scaffolds, supports, and opportunity to do so. 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 create conditions for new learning, and provide opportunities for teachers to observe, understand, and respond to learners' current knowledge.

Research or Standards connection for Indicator 2j:

- Common Core State Standards for Mathematics (CCSSM)
- High School Publishers' Criteria for the CCSSM (Spring 2013)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for High School Mathematics
- Achieve EQuIP Rubric for Lessons & Units
- CCSS Mathematics Curriculum Materials Analysis Project

Research or Standards connection for Indicator 2j.MLL:

- 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)
- Chu, H. & Hamburger, L. (2019). Designing mathematical interactions for English learners. *Mathematics Teaching in the Middle School, 24*(4), 218–225.
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- Hakuta, K., Butler, Y. G., & Witt, D. (2000). How long does it take English learners to attain proficiency? *The University of California Linguistic Minority Research Institute, (2000-1)*.
- Moschkovich, J. (2013). Principles and guidelines for equitable mathematics teaching practices and materials for English language learners. Journal of Urban Mathematics Education. 6(1). 45-57.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Saunders, W., Goldenberg, C., & Marcelletti, D. (2013). English language development: Guidelines for instruction. *American Educator, 37*(2), 13.
- Torff, B., & Murphy, A. (2020). Teachers' beliefs about English learners: Adding linguistic support to enhance academic rigor. *Phi Delta Kappan*, 101, 14-18.
- 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

Resources for Indicator 2j:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP6: Attend to precision
- This compilation document

Resources for Indicator 2j.MLL:

- Chval, K. & Renaldi, C. (2022). ELSF: Amplify and facilitate student curiosity about language. *English Learners Success Forum*. Retrieved from https://www.elsuccessforum.org/resources/amplify-and-facilitate-student-curiosity-about-language

Indicator 2j Guiding Questions:

Across the series, is MP6 used to enrich the mathematical content?

Across the series, is there intentional development of MP6 that reaches the full intent of the MP?

Evidence Collection

For Indicator 2j:
Look at all lessons in teacher's manuals and in the student materials to ensure that MP6 is occurring throughout the courses.

Look in unit overviews, scope and sequence charts, and/or other instructional guides to ensure that MP6 is occurring throughout the courses of the series.

Record any instances where MP6 is misidentified in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part addresses that, or vice versa).

To check that MP6 is being used to enrich the mathematics content and are fully developed to meet the level of expectation for high school:

Look at lessons, assessments and any examples/descriptions of anticipated student work. Look for places that require students to:

- use accurate, precise mathematical language (vocabulary and conventions)
- specify units of measure
- state the meaning of symbols
- formulate clear explanations
- calculate accurately and efficiently
- use and label tables, graphs, etc. appropriately
- introduce and use definitions accurately

Look at teacher directions and how teachers are guided to carry out the lessons. In particular, look for places where teachers are expected to:

- ensure students know and use clear definitions
- model accurate, precise mathematical language (vocabulary and conventions)
- provide feedback to students on the accurate use of mathematical language

Check to see if any materials focus only on the Standards for Mathematical Practice (therefore, they are not being used to enrich the mathematical content). Record any instances where the Standards for Mathematical Practice are not being used to enrich course-level, mathematics content.

Verify that student engagement with the lessons and assessments would require use of the Standards for Mathematical Practice so that across the series students will develop their use of the MP to the full intent of the standards.

Record any instances where a MP was identified, however, engagement with the lesson or task would only require minimal or trivial use of the indicated MP.

If the MP is only located in a specific part of the teacher's manuals (e.g. the teacher-led portion of the lesson), you will need to look at other sections (e.g. independent work, homework, assessments) to ensure that the MP is intentionally used to enrich the content. Look not only where the MP is identified, but also look at places where it is not identified.

For Indicator 2j.MLL:
In the Instructional Materials being reviewed:

- 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 all students in 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 student 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: table = furniture or a list of numbers showing the results of a calculation*)

Cluster Meeting

For the Indicator 2j cluster meeting:
Consider the following question(s) as evidence is synthesized:

- When is MP6 identified and connected to the series-level mathematical content?
- In what ways do the students use MP6 to its full intent across the series?
- In what ways is the specialized language of mathematics intentionally developed?
- In what ways, if any, do the materials provided for teachers enable students to engage with MP6?

For the Indicator 2j.MLL cluster meeting:

- 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 generic/basic sentence frames)?
- How do language supports provide opportunities to develop language using the four domains of language (speaking, listening, reading, and writing)?
- Do materials support opportunities for MLL students to revise and build on new learnings?

HS Math Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 2k	**2k** Materials support the intentional development of MP7: Look for and make use of structure, for students, in connection to the high school content standards, as required by the mathematical practice standards. **2k.MLL** Materials provide support for MLLs' full and complete participation in the intentional development of MP7: Look for and make use of structure, for students, in connection to the high school content standards, as required by the mathematical practice standards.

2k Scoring:	
1 point • There is intentional development of MP7 to meet its full intent in connection to course-level content across the series.	0 points • There is not intentional development of MP7 to meet its full intent in connection to course-level content across the series.

2k.MLL Scoring:		
2 points • Materials consistently provide strategies and supports for MLLs to fully and completely participate in the intentional development of MP7: Look for and make use of structure for students, in connection to the high school content standards, as required by the mathematical practice standards.	1 point • Materials provide strategies and supports for MLLs to participate in the intentional development of MP7, 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 fully and completely participate in the intentional development of MP7, but they are not employed consistently throughout the program.	0 points • Materials do not provide strategies and supports for MLLs full and complete participation in the intentional development of MP7.

About this indicator:

What is the purpose of Indicator 2k?
This indicator, along with 2e, 2f, 2g, 2h, 2i, 2j, and 2l, determines the adherence to the Standards for Mathematical Practice. This indicator specifically looks at MP which supports the intentional development of

seeing structure. It assesses whether the provided opportunities for student engagement with the math practices are a) used to enrich the mathematics content of the courses and b) fully developed across the series to meet the level of expectation of high school mathematical study.

What is the purpose of Indicator 2k.MLL?

MLLs can and will reach grade-level standards when provided the appropriate scaffolds, supports, and opportunity to do so. 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 create conditions for new learning, and provide opportunities for teachers to observe, understand, and respond to learners' current knowledge.

Research or Standards connection for Indicator 2k:

- Common Core State Standards for Mathematics (CCSSM)
- High School Publishers' Criteria for the CCSSM (Spring 2013)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for High School Mathematics
- Achieve EQuIP Rubric for Lessons & Units
- CCSS Mathematics Curriculum Materials Analysis Project

Research or Standards connection for Indicator 2k.MLL:

- 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)
- Chu, H. & Hamburger, L. (2019). Designing mathematical interactions for English learners. *Mathematics Teaching in the Middle School, 24*(4), 218–225.
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- Hakuta, K., Butler, Y. G., & Witt, D. (2000). How long does it take English learners to attain proficiency? *The University of California Linguistic Minority Research Institute, (2000-1)*.
- Moschkovich, J. (2013). Principles and guidelines for equitable mathematics teaching practices and materials for English language learners. Journal of Urban Mathematics Education. 6(1). 45-57.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Saunders, W., Goldenberg, C., & Marcelletti, D. (2013). English language development: Guidelines for instruction. *American Educator, 37*(2), 13.
- Torff, B., & Murphy, A. (2020). Teachers' beliefs about English learners: Adding linguistic support to enhance academic rigor. *Phi Delta Kappan*, 101, 14-18.
- 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

Resources for Indicator 2k:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP7: Look for and make use of structure
- This compilation document

Resources for Indicator 2k.MLL:

- Chval, K. & Renaldi, C. (2022). ELSF: Amplify and facilitate student curiosity about language. *English Learners Success Forum*. Retrieved from https://www.elsuccessforum.org/resources/amplify-and-facilitate-student-curiosity-about-language

Indicator 2k Guiding Questions:

Across the series, is MP7 used to enrich the mathematical content?

Across the series, is there intentional development of MP7 that reaches the full intent of the MPs?

Evidence Collection

For Indicator 2k:
Look at all lessons in teacher's manuals and in the student materials to ensure that MP7 is occurring throughout the courses.

Look in unit overviews, scope and sequence charts, and/or other instructional guides to ensure that MP78 is occurring throughout the courses of the series.

Record any instances where MP78 is misidentified in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part addresses that, or vice versa).

To check that MP78 is being used to enrich the mathematics content and are fully developed to meet the level of expectation for high school:

Look at lessons, assessments and any examples/descriptions of anticipated student work. Look for places that require students to:

- Look for patterns and make generalizations.
- Look and explain the structure of expressions.
- Look at and decompose "complicated" into "simpler" things.
  E.g. seeing $\sin^2 x + 2\sin x + 1$ as $u^2 + 2u + 1$.
- Analyze a problem and look for more than one approach.

Look at teacher directions and how teachers are guided to carry out the lessons. In particular, look for places where teachers are expected to:

- Provide tasks/problems with patterns.
- Prompt students to look for structure and patterns.
- Prompt students to describe what they see in the structure/pattern.
  E.g. Ask a student to explain how his/her expression "4n + 1" can be seen in the tile pattern.
- Provide a variety of examples that explicitly focus on patterns and repeated reasoning.

Check to see if any materials focus only on the Standards for Mathematical Practice (therefore, they are not being used to enrich the mathematical content). Record any instances where the Standards for Mathematical Practice are not being used to enrich course-level, mathematics content.

Verify that student engagement with the lessons and assessments would require use of the Standards for Mathematical Practice so that across the series students will develop their use of the MP to the full intent of the standards.

Record any instances where an MP was identified, however, engagement with the lesson or task would only require minimal or trivial use of the indicated MP.

If you found that the MP is only located in a specific part of the teacher's manuals (e.g. the teacher-led portion of the lesson), you will need to look at other sections (e.g. independent work, homework, assessments) to ensure that the MP is intentionally used to enrich the content. Look not only where the MP is identified in the materials, but also look at places where it is not identified.

For Indicator 2k.MLL:
In the Instructional Materials being reviewed:

- 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 all students in 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 student 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: table = furniture or a list of numbers showing the results of a calculation*)

Cluster Meeting

For the Indicator 2k cluster meeting:
Consider the following question(s) as evidence is synthesized:

- When is MP7 identified and connected to series-level mathematical content?
- In what ways do the students use the MP to its full intent across the series?
- In what ways, if any, do the materials provided for teachers enable students to engage with the MP?

For the Indicator 2k.MLL cluster meeting:

- 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 generic/basic sentence frames)?
- How do language supports provide opportunities to develop language using the four domains of language (speaking, listening, reading, and writing)?
- Do materials support opportunities for MLL students to revise and build on new learnings?

HS Math Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 2I	**2I** Materials support the intentional development of MP8: Look for and express regularity in repeated reasoning, for students, in connection to the high school content standards, as required by the mathematical practice standards. **2I.MLL** Materials provide support for MLLs' to full and complete participation in the intentional development of MP8: Look for and express regularity in repeated reasoning, for students, in connection to the high school content standards, as required by the mathematical practice standards.

2I Scoring:	
1 point • There is intentional development of MP8 to meet its full intent in connection to course-level content across the series.	0 points • There is not intentional development of MP8 to meet its full intent in connection to course-level content across the series.

2I.MLL Scoring:		
2 points • Materials consistently provide strategies and supports for MLLs to fully and completely participate in the intentional development of MP8: Look for and express regularity in repeated reasoning, for students, in connection to the high school content standards, as required by the mathematical practice standards.	1 point • Materials provide strategies and supports for MLLs to participate in the intentional development of MP8, 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 fully and completely participate in the intentional development of MP8, but they are not employed consistently throughout the program.	0 points • Materials do not provide strategies and supports for MLLs full and complete participation in the intentional development of MP8.

About this indicator:

What is the purpose of Indicator 2I?

This indicator, along with 2e, 2f, 2g, 2h, 2i, 2j, and 2k, determines the adherence to the Standards for Mathematical Practice. This indicator specifically looks at MP 8 which supports the intentional development looking for and expressing regularity in repeated reasoning. It assesses whether the provided opportunities for student engagement with the math practices are a) used to enrich the mathematics content of the courses and b) fully developed across the series to meet the level of expectation of high school mathematical study.

What is the purpose of Indicator 2I.MLL?

MLLs can and will reach grade-level standards when provided the appropriate scaffolds, supports, and opportunity to do so. 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 create conditions for new learning, and provide opportunities for teachers to observe, understand, and respond to learners' current knowledge.

Research or Standards connection for Indicator 2I:

- Common Core State Standards for Mathematics (CCSSM)
- High School Publishers' Criteria for the CCSSM (Spring 2013)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for High School Mathematics
- Achieve EQuIP Rubric for Lessons & Units
- CCSS Mathematics Curriculum Materials Analysis Project

Research or Standards connection for Indicator 2I.MLL:

- 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)
- Chu, H. & Hamburger, L. (2019). Designing mathematical interactions for English learners. *Mathematics Teaching in the Middle School, 24*(4), 218–225.
- Gibbons, P. (2015). Scaffolding language, scaffolding learning. *Teaching English Language Learners in the Mainstream Classroom*. New Hampshire: Heinemann.
- Hakuta, K., Butler, Y. G., & Witt, D. (2000). How long does it take English learners to attain proficiency? *The University of California Linguistic Minority Research Institute, (2000-1)*.
- Moschkovich, J. (2013). Principles and guidelines for equitable mathematics teaching practices and materials for English language learners. Journal of Urban Mathematics Education. 6(1). 45-57.
- NASEM, 2018; English Language Development Guidelines for Instruction. Saunders, W., Goldenberg, C., Marcelletti, D. 2013.
- Saunders, W., Goldenberg, C., & Marcelletti, D. (2013). English language development: Guidelines for instruction. *American Educator, 37*(2), 13.
- Torff, B., & Murphy, A. (2020). Teachers' beliefs about English learners: Adding linguistic support to enhance academic rigor. *Phi Delta Kappan*, 101, 14-18.
- 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

Resources for Indicator 2I:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP8: Look for and express regularity in repeated reasoning
- This compilation document

Resources for Indicator 2I.MLL:

- Chval, K. & Renaldi, C. (2022). ELSF: Amplify and facilitate student curiosity about language. *English Learners Success Forum*. Retrieved from https://www.elsuccessforum.org/resources/amplify-and-facilitate-student-curiosity-about-language

Indicator 2l Guiding Questions:

Across the series, is MP8 used to enrich the mathematical content?

Across the series, is there intentional development of MP8 that reaches the full intent of the MPs?

Evidence Collection

For Indicator 2l:
Look at all lessons in teacher's manuals and in the student materials to ensure that MP8 is occurring throughout the courses.

Look in unit overviews, scope and sequence charts, and/or other instructional guides to ensure that MP8 is occurring throughout the courses of the series.

Record any instances where MP8 is misidentified in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part addresses that, or vice versa).

To check that MP8 is being used to enrich the mathematics content and are fully developed to meet the level of expectation for high school:

Look at lessons, assessments and any examples/descriptions of anticipated student work. Look for places that require students to:

- Look for shortcuts and general methods when calculations/processes are repeated
- Describe a general formula, process, or algorithm
- Evaluate the reasonableness of their answers and thinking.

Look at teacher directions and how teachers are guided to carry out the lessons. In particular, look for places where teachers are expected to:

- Provide time for students to look for patterns, structure, shortcuts, generalizations, etc.
- Ask probing questions like "Does that always work?" or "Why does that work?"
- Provide situations in which students can use a strategy to develop understanding of a concept
- Prompt students to make generalizations

Check to see if any materials focus only on the Standards for Mathematical Practice (therefore, they are not being used to enrich the mathematical content). Record any instances where the Standards for Mathematical Practice are not being used to enrich course-level, mathematics content.

Verify that student engagement with the lessons and assessments would require use of the Standards for Mathematical Practice so that across the series students will develop their use of the MP to the full intent of the standards.

Record any instances where an MP was identified, however, engagement with the lesson or task would only require minimal or trivial use of the indicated MP.

If you found that the MP is only located in a specific part of the teacher's manuals (e.g. the teacher-led portion of the lesson), you will need to look at other sections (e.g. independent work, homework, assessments) to

ensure that the MP is intentionally used to enrich the content. Look not only where the MP is identified in the materials, but also look at places where it is not identified.

For Indicator 2I.MLL:
In the Instructional Materials being reviewed:

- 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 all students in 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 student 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: table = furniture or a list of numbers showing the results of a calculation*)

Cluster Meeting

For the Indicator 2I cluster meeting:
Consider the following question(s) as evidence is synthesized:

- When is MP8 identified and connected to series-level mathematical content?
- In what ways do the students use the MP to its full intent across the series?
- In what ways, if any, do the materials provided for teachers enable students to engage with the MP?

For the Indicator 2I.MLL cluster meeting:

- 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 generic/basic sentence frames)?
- How do language supports provide opportunities to develop language using the four domains of language (speaking, listening, reading, and writing)?
- Do materials support opportunities for MLL students to revise and build on new learnings?

Criterion 2: Coherence of MLL Supports

To identify the Criterion rating, educators use evidence gathered to score indicators related to each indicator.

Criterion 2 MLL indicators are connected to the content Gateway 1 focusing on grade-level focus standards and coherence and consistency with college- and career-ready standards in each tool. Indicator names reflect the content criteria they are connected to using this naming convention: *(Content Criterion).MLL*. Some content criteria have more than one associated MLL indicator; in these cases, a number will follow the indicator name.

Criterion 2: MLL supports are intentionally developed over time and reflect the interdependence of language and content.

HS Math Criterion 1.1	Materials are coherent and consistent with "the high school standards that specify the mathematics which all students should study in order to be college and career ready" (p. 57 CCSSM).
1.1.MLL-3	Materials intentionally develop language in ways valued by disciplinary practices over time, across lessons, units, and throughout the course.

1.2.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 so that it 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:

"The responsibility of 'teaching language' to students is often seen as resting solely on the shoulders of the ESL teacher. However, all teachers need to share responsibility for apprenticing students into the uses of English necessary to accomplish the disciplinary goals of their class." - Walqui & Bunch

“For multilingual learners to develop the mathematical language to effectively explain their thinking, they must be provided with opportunities to use mathematical discourse.” - from ELSF

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)
- Chval, K. & Renaldi, C. (2022). ELSF: Amplify and facilitate student curiosity about language. *English Learners Success Forum*. Retrieved from https://www.elsuccessforum.org/resources/amplify-and-facilitate-student-curiosity-about-language
- 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. 2018.
- Walqui, A., & Bunch, G. C. (2019). *Amplifying the curriculum: Designing quality learning opportunities for English learners*. Teachers College Press.
- Walqui, A., & Heritage, M. (2018). Meaningful classroom talk: Supporting English learners' oral language development. *American Educator, 42*(3), 18-39.
- WIDA ELD Standards Framework: https://wida.wisc.edu/teach/standards/eld/2020

1.1.MLL-3 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 1.1.MLL-3. The way the language learning goals manifest in the scope and sequence should be described in 1.1.MLL-4 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 Math Criterion 1.1	Materials are coherent and consistent with “the high school standards that specify the mathematics which all students should study in order to be college and career ready” (p. 57 CCSSM).
1.1.MLL-4	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.
- 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.

1.1.MLL-4 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 Math Criterion 1.1	Materials are coherent and consistent with “the high school standards that specify the mathematics which all students should study in order to be college and career ready” (p. 57 CCSSM).
1.1.MLL-5	Materials include language goals/objectives that are incorporated at the individual lesson level.

1.1.MLL-5 Scoring			
4 points Materials include language goals/objectives incorporated at the lesson level that are: • 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.	3 points Materials include language goals/objectives incorporated at the lesson level that include two out of three of the following, conditions. They are • 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	2 points Materials include language goals/objectives incorporated at the lesson level that include only one of three of the following, conditions. They are • 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 the four domains of language: speaking, listening, reading, and writing	0 points • 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.

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.

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.

1.1.MLL-5 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.

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

To identify the Criterion rating, educators use evidence gathered to score indicators related to each indicator.

Criterion 3 MLL indicators are connected to the content Gateway 3 focusing on teacher and student supports in each tool. Indicator names reflect the content criteria they are connected to using this naming convention: *(Content Criterion).*MLL. Some content criteria have more than one associated MLL indicator; in these cases, a number will follow the indicator name. In Criterion 3, there are also MLL indicators that parallel a specific content indicator within the connected criterion. These indicator names reflect the content indicator they are connected to using this naming convention: *(Content Indicator).*MLL. For example, 3e.MLL mirrors 3e in the math tools.

Criterion 3: Materials provide guidance for all teachers to effectively implement the provided strategies and supports for MLLs.

HS Math Criterion 3.1	Materials include opportunities for teachers to effectively plan and utilize materials with integrity and to further develop their own understanding of the content.
Indicator 3e	**3e** Materials explain the program's instructional approaches, identify the research-based strategies, and explain the role of the standards. **3e.MLL** Materials provide explanations of the instructional approaches of the program for MLLs and identification of the research-based strategies.

3e Scoring:		
2 points • Materials explain the instructional approaches of the program. AND • Materials include and reference research-based strategies. AND • Materials include and reference the role of the standards in the program.	1 point • Materials explain the instructional approaches of the program. OR • Materials include and reference research-based strategies. OR • Materials include and reference the role of the standards in the program.	0 points • Materials do not explain the instructional approaches of the program. AND • Materials do not include and reference research-based strategies. AND • Materials do not include and reference the role of the standards in the program.
3e.MLL Scoring:		
2 points	1 point	0 points

• Materials explain the instructional approaches of the program for MLLs. AND • Materials include and reference research-based strategies for the MLL approach.	• Materials explain the instructional approaches of the program for MLLs. OR • Materials include and reference research-based strategies for the MLL approach.	• Materials do not explain the instructional approaches of the program for MLLs. AND • Materials do not include and reference research-based strategies for the MLL approach.

About this indicator:

What is the purpose of Indicator 3e?
This indicator examines whether materials provide a clear and comprehensive explanation of the instructional approaches used within the program. It emphasizes the identification and justification of research-based strategies employed in the curriculum, demonstrating how these methods are grounded in educational research to enhance teaching effectiveness and student learning. Additionally, the indicator highlights the role of the standards, explaining how the program aligns with and supports these benchmarks to meet educational goals and ensure consistency across different instructional settings. This transparency helps educators understand the rationale behind the teaching methods and how they contribute to achieving desired learning outcomes, thereby enhancing instructional fidelity and effectiveness.

What is the purpose of Indicator 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, identification of the research-based strategies, and reference the role of the standards in the program?

Evidence Collection

For Indicator 3e:
In the instructional materials being reviewed:

- Ensure that the materials clearly outline the instructional approaches used within the program, providing a comprehensive overview of how these methods guide teaching and learning activities.
- Check for detailed descriptions of how these approaches are implemented in various lessons and activities, helping educators visualize their practical application.
- Look for explicit references to research-based strategies, including citations of studies or educational research that support the effectiveness of the strategies employed.
- Assess whether the materials explain the reasoning behind choosing specific strategies, illustrating how they are designed to enhance learning outcomes and support evidence-based teaching practices.
- Confirm that the materials clearly explain how the program aligns with educational standards, such as state, national, or Common Core standards, highlighting their role in shaping the curriculum.

For Indicator 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

Preparing for the Indicator 3e cluster meeting:

- Do the materials clearly outline the instructional approaches used within the program, providing a comprehensive overview of how these methods guide teaching and learning activities?
- Are there detailed descriptions of how these instructional approaches are implemented in various lessons and activities to help educators visualize their practical application?
- Do the materials include explicit references to research-based strategies, along with citations of studies or educational research that support the effectiveness of the strategies employed?
- Do the materials explain the reasoning behind choosing specific strategies, illustrating how they are designed to enhance learning outcomes and support evidence-based teaching practices?
- Do the materials clearly explain how the program aligns with educational standards, such as state, national, or Common Core standards, highlighting their role in shaping the curriculum?

During the Indicator 3e cluster meeting:

- Discuss whether the materials clearly outline the instructional approaches used within the program, providing a comprehensive overview of how these methods guide teaching and learning activities.
- Discuss whether there are detailed descriptions of how these instructional approaches are implemented in various lessons and activities to help educators visualize their practical application.
- Discuss whether the materials include explicit references to research-based strategies, along with citations of studies or educational research that support the effectiveness of the strategies employed.
- Discuss whether the materials explain the reasoning behind choosing specific strategies, illustrating how they are designed to enhance learning outcomes and support evidence-based teaching practices.
- Discuss whether the materials clearly explain how the program aligns with educational standards, such as state, national, or Common Core standards, highlighting their role in shaping the curriculum.

Discussion questions for the Indicator 3e.MLL cluster meeting:

- 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 Math Criterion 3.1	Materials include opportunities for teachers to effectively plan and utilize materials with integrity and to further develop their own understanding of the content.
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	1 point	0 points
• 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.	• 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.	• 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.

Indicator 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

In the instructional materials being reviewed, 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 Math Criterion 3.1	Materials include 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

In the instructional materials being reviewed, 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

- 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 Math Criterion 3.1	Materials include 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
• Materials guide teachers on how to match students with language supports, progressing along a continuum. AND • Materials guide teachers on how to be responsive to students' current language development in relation to the content.	• Materials guide teachers on how to match students with language supports, progressing along a continuum. OR • Materials guide teachers on how to be responsive to students' current language development in relation to the content.	• Materials do not guide teachers on how to match students with language supports, progressing along a continuum. AND • 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.

Indicator 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 and 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

- 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 Math Criterion 3.1	Materials include 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	0 points
• Materials include guidance for teachers around using suggested scaffolds and supports with different program models for MLLs.	• Materials do not include guidance for teachers around using 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.

Indicator 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 and 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 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

- 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 Math Criterion 3.2	Materials are designed for each student's regular and active participation in grade-level/grade-band/series content.
Indicator 3m	**3m** Materials provide opportunities for teachers to use a variety of grouping strategies. **3m.MLL** Materials include guidance for intentional and flexible grouping structures for MLLs to ensure equitable participation.

3m Scoring: Narrative Evidence Only

Note: No score is given for this indicator. Only qualitative evidence is provided.
- Materials provide grouping strategies for students.
- Materials provide guidance for varied types of interaction among students.
- Materials provide guidance for the teacher on grouping students in a variety of grouping formats.

3m.MLL Scoring

2 points	1 point	0 points
• Materials include guidance for intentional and flexible grouping structures for MLLs. AND • Materials include guidance to ensure equitable participation for MLLs in group work.	• Materials include guidance for intentional and flexible grouping structures for MLLs. OR • Materials include guidance to ensure equitable participation for MLLs in group work.	• 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 Indicator 3m?
This indicator looks at whether materials offer teachers diverse strategies for grouping students during instruction. By providing opportunities for various grouping methods, such as whole-class, small group, pair, or individual work, teachers can effectively address different instructional goals, engage students with varied learning styles, and meet diverse student needs. These strategies can enhance collaboration, communication, and peer learning while also allowing for targeted instruction and differentiated support. Ultimately, the indicator aims to create a more dynamic and interactive learning environment that supports student engagement and maximizes learning outcomes.

What is the purpose of Indicator 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

For Indicator 3m:

In the instructional materials being reviewed:

- Ensure the materials suggest a variety of grouping strategies such as whole-class, small groups, pairs, and individual work. These should cater to different instructional objectives and student needs.
- Look for guidance on how to align grouping strategies with specific instructional goals, such as fostering collaboration, enhancing understanding, or providing differentiated instruction.
- Check if the materials offer recommendations for flexible grouping, allowing teachers to adjust groups based on student progress, skill levels, or specific learning activities.
- Ensure that there are explicit instructions or criteria for teachers on how to form groups, taking into account factors like student ability, learning preferences, or interpersonal dynamics.
- Confirm that the materials provide guidance on facilitating different types of student interactions, such as cooperative learning, peer review, discussions, and problem-solving activities.
- Look for embedded support and scaffolding suggestions to help teachers manage and support student interactions effectively within various group settings.
- Assess whether the grouping strategies are designed to promote active student engagement and participation, ensuring all students have the opportunity to contribute and learn.
- Verify whether the materials include opportunities for feedback and reflection on group interactions, helping students to improve their collaborative skills and self-awareness.

Note: If you identify grouping strategies specifically targeted to differentiated populations, please assign that evidence to the associated indicators (special populations will be in 3j; advanced students in 3k; MLL learners in 3m.MLL).

For Indicator 3m.MLL:

- Describe teacher guidance around using grouping strategies with MLLs.
  - 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

Preparing for the Indicator 3m cluster meeting:

Preparing for the cluster meeting:

- Do the materials suggest a variety of grouping strategies such as whole-class, small groups, pairs, and individual work that cater to different instructional objectives and student needs?
- Is there guidance on how to align grouping strategies with specific instructional goals, such as fostering collaboration, enhancing understanding, or providing differentiated instruction?

- Do the materials offer recommendations for flexible grouping, allowing teachers to adjust groups based on student progress, skill levels, or specific learning activities?
- Are there explicit instructions or criteria for teachers on how to form groups, considering factors like student ability, learning preferences, or interpersonal dynamics?
- Do the materials provide guidance on facilitating different types of student interactions, such as cooperative learning, peer review, discussions, and problem-solving activities?
- Are there embedded support and scaffolding suggestions to help teachers manage and support student interactions effectively within various group settings?
- Are the grouping strategies designed to promote active student engagement and participation, ensuring all students have the opportunity to contribute and learn?
- Do the materials include opportunities for feedback and reflection on group interactions, helping students to improve their collaborative skills and self-awareness?

During the Indicator 3m cluster meeting:

- Discuss whether the materials suggest a variety of grouping strategies such as whole-class, small groups, pairs, and individual work that cater to different instructional objectives and student needs.
- Discuss whether there is guidance on how to align grouping strategies with specific instructional goals, such as fostering collaboration, enhancing understanding, or providing differentiated instruction.
- Discuss whether the materials offer recommendations for flexible grouping, allowing teachers to adjust groups based on student progress, skill levels, or specific learning activities.
- Discuss whether there are explicit instructions or criteria for teachers on how to form groups, considering factors like student ability, learning preferences, or interpersonal dynamics.
- Discuss whether the materials provide guidance on facilitating different types of student interactions, such as cooperative learning, peer review, discussions, and problem-solving activities.
- Discuss whether there are embedded support and scaffolding suggestions to help teachers manage and support student interactions effectively within various group settings.
- Discuss whether the grouping strategies are designed to promote active student engagement and participation, ensuring all students have the opportunity to contribute and learn.
- Discuss whether the materials include opportunities for feedback and reflection on group interactions, helping students to improve their collaborative skills and self-awareness.

Discussion questions for the Indicator 3m.MLL cluster meeting:

- 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 Math Criterion 3.2	Materials are 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 mathematics. 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 and look for and record evidence to:

- Describe how the materials provide suggestions and strategies to use the home language to support students in learning mathematics.
- Describe how the materials present multilingualism as an asset in reading, and how to use students' home language strategically for learning how to negotiate texts 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

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 Math Criterion 3.2.	Materials are 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.

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.

3.2.MLL-2 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, accessible texts for leveled literature circles to build background knowledge may be suggested, but unlike core texts, 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

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

To identify the Criterion rating, educators use evidence gathered to score indicators related to each indicator.

Criterion 4 MLL indicators are connected to the content Criteria 2.2. and 3.2 focusing on assessments in each tool. Indicator names reflect the content criteria they are connected to using this naming convention: *(Content Criterion).*MLL. Some content criteria have more than one associated MLL indicator; in these cases, a number will follow the indicator name. In Criterion 4, there are also MLL indicators that parallel a specific content indicator within the connected criterion. These indicator names reflect the content indicator they are connected to using this naming convention: *(Content Indicator).*MLL. For example, 3n.MLL mirrors 3n in the math tools.

Criterion 4: 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 Math Criterion 3.2	Materials are designed for each student's regular and active participation in grade-level/grade-band/series content.
Indicator 3n	**3n** Assessments offer accommodations that allow students to demonstrate their knowledge and skills without changing the content of the assessment. **3n.MLL** Assessments offer accommodations that allow MLLs to demonstrate their knowledge and skills without changing the content of the assessment.

3n Scoring: Narrative Evidence Only

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

- Materials offer accommodations that ensure all students can access the assessment (e.g., text-to-speech, increased font size) without changing its content.
- Materials include guidance for teachers on the use of provided accommodations.
- Materials include guidance for teachers about who can benefit from these accommodations.
- Materials do not include modifications to assessments that alter grade level/expectations.

3n.MLL Scoring

1 point	0 points
• Assessments offer accommodations that allow MLLs to demonstrate their knowledge and skills without changing the content of the assessment	• 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 Indicator 3n?

This indicator examines whether the materials ensure that assessments include accommodations that enable all students, especially those with diverse learning needs or disabilities, to demonstrate their knowledge and skills effectively without altering the core content or objectives of the assessment. These accommodations are designed to provide equitable access to the assessment process, ensuring that the results are a true reflection of a student's understanding and abilities rather than their ability to navigate barriers unrelated to the content. This can include changes in the assessment environment, format, timing, or presentation that help level the playing field while maintaining the integrity and rigor of the assessment content.

What is the purpose of Indicator 3n.MLL?

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

Research and Resources for 3n.MLL

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

Evidence Collection

For Indicator 3n:

In the instructional materials being reviewed:

- Ensure the materials provide a variety of accommodations, such as text-to-speech, increased font size, alternative formats (e.g., Braille, large print), and extended time, ensuring accessibility for students with different needs.
- Check that there is clear and comprehensive guidance for teachers on how to implement these accommodations effectively during assessments, including step-by-step instructions if necessary.
- Ensure that the materials offer guidance on which students can benefit from specific accommodations, helping teachers to make informed decisions based on individual student needs and educational plans.
- Confirm that the accommodations provided do not change the content or expectations of the assessments, ensuring that grade-level standards and rigor are maintained.

For Indicator 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

Preparing for the Indicator 3n cluster meeting:

- Do the materials provide a variety of accommodations, such as text-to-speech, increased font size, alternative formats (e.g., Braille, large print), and extended time, ensuring accessibility for students with different needs?
- Is there clear and comprehensive guidance for teachers on how to implement these accommodations effectively during assessments, including step-by-step instructions if necessary?
- Do the materials offer guidance on which students can benefit from specific accommodations, helping teachers make informed decisions based on individual student needs and educational plans?
- Do the accommodations provided ensure that the content or expectations of the assessments are not changed, maintaining grade-level standards and rigor?
- Is there flexibility in how accommodations can be implemented, allowing teachers to tailor them to the specific needs of their students while adhering to the assessment's core objectives?
- Do the materials include tools or templates for documenting accommodations used during assessments, supporting accountability and planning for future assessments?
- Are there suggestions or best practices for modifying the testing environment to support the implementation of accommodations, such as minimizing distractions or providing a separate testing area?

During the Indicator 3n cluster meeting:

- Discuss whether the materials provide a variety of accommodations, such as text-to-speech, increased font size, alternative formats (e.g., Braille, large print), and extended time, ensuring accessibility for students with different needs.
- Discuss whether there are clear and comprehensive guidance for teachers on how to implement these accommodations effectively during assessments, including step-by-step instructions if necessary.
- Discuss whether the materials offer guidance on which students can benefit from specific accommodations, helping teachers make informed decisions based on individual student needs and educational plans.
- Discuss whether the accommodations provided ensure that the content or expectations of the assessments are not changed, maintaining grade-level standards and rigor.
- Discuss whether there is flexibility in how accommodations can be implemented, allowing teachers to tailor them to the specific needs of their students while adhering to the assessment's core objectives.
- Discuss whether the materials include tools or templates for documenting accommodations used during assessments, supporting accountability and planning for future assessments.
- Discuss if there are suggestions or best practices for modifying the testing environment to support the implementation of accommodations, such as minimizing distractions or providing a separate testing area.

Discussion questions for the Indicator 3n.MLL cluster meeting:

- Is there any guidance for teachers on how and why they should provide accommodations for MLLs?
- Are current instructional supports for MLLs maintained through the assessment process?
- Are there additional accommodations provided for MLLs to demonstrate their understanding on assessments?

HS Math Criterion 1.1	Materials are coherent and consistent with “the high school standards that specify the mathematics which all students should study in order to be college and career ready” (p. 57 CCSSM).
1.1.MLL-1	Materials include a formative assessment plan for language alongside content that includes a connection to established unit/lesson language goals.

Scoring:		
2 points • Materials include a formative assessment plan for language alongside content that consistently includes a connection to established unit/lesson language goals.	1 point • Materials include formative assessments for language alongside connect, 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.	0 points • Materials do not include any formative assessments for language.

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.

Research and Resources:

- Alvarez, L., Ananda, S., Walquí, A., Sato, E., & Rabinowitz, S. (2014). Focusing formative assessment on the needs of English learners. WestEd.
- Alvarez, L., Ananda, S., Walquí, A., Sato, E., & Rabinowitz, S. (2014). Formative assessment considerations. English Learners Success Form. Retrieved from https://www.elsuccessforum.org/resources/ela-formative-assessment-considerations
- Cardenas, G., & Heritage, M. (2022). Formative assessment: A key to improving learning for English learners. English Learners Success Forum. Retrieved from https://www.elsuccessforum.org/resources/formative-assessment-a-key-to-improving-learning-for-english-learners

1.1.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

In the instructional materials being reviewed, 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

Discussion questions for the cluster meeting:

- 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 Math Criterion 1.1	Materials are coherent and consistent with “the high school standards that specify the mathematics which all students should study in order to be college and career ready” (p. 57 CCSSM).
1.1.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 ● 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 ● 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 ● Materials do not include guidance for gathering, analyzing, using, and communicating language and content data from formative assessments in a cycle of continuous improvement. **Note: Materials that receive a score of 0 for 1.1.MLL-1 automatically receive a score of 0 for 1.1.MLL-2, as guidance on formative assessments can only be present in materials that contain formative assessments.*

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.

Research and Resources:

- Cardenas, G., & Heritage, M. (2022). Formative assessment: A key to improving learning for English learners. English Learners Success Forum. Retrieved from https://www.elsuccessforum.org/resources/formative-assessment-a-key-to-improving-learning-for-english-learners.

1.1.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

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

- 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?