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Multilingual Learner Supports Evidence Guide v2.0

Mathematics

Grades K-8

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.

K-8 Math Criterion 1.1	Materials assess grade-level content and give all students extensive work with grade-level problems to meet the full intent of grade-level standards.
Indicator 1d	**1d** Materials give all students extensive work with grade-level problems to meet the full intent of grade-level standards. **1d.MLL** Materials provide support for MLLs' full and complete participation in extensive work with grade-level problems to meet the full intent of grade-level standards.

1d Scoring:

4 points	2 points	0 points
- Materials present all students with extensive work with grade-level problems. AND - Materials present opportunities for all students to meet the full intent of grade-level standards.	- Materials do not present all students with extensive work with grade-level problems. OR - Materials do not present opportunities for all students to meet the full intent of grade-level standards.	- 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.

1d.MLL Scoring:

2 points	1 point	0 points

• Materials consistently provide strategies and supports for MLLs to fully and completely participate in extensive work with grade-level problems to meet the full intent of grade-level standards.	• Materials provide strategies and supports for MLLs to participate in extensive work with grade-level problems to meet the full intent of grade-level standards, 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 extensive work with grade-level problems to meet the full intent of grade-level standards, but they are not employed consistently throughout the program.	• Materials do not provide strategies and supports for MLLs to fully and completely participate in extensive work with grade-level problems to meet the full intent of grade-level standards.

About this indicator:

What is the purpose of Indicator 1d?

Indicators 1a and 1c determine the shift of Focus. This indicator examines if the materials provide all students with extensive work with grade-level problems, so that all students engage with the full intent of the grade-level standards.

ALL standards in the CCSSM should be considered throughout evidence collection for Gateway 1 indicators 1a, 1b, 1c, 1d, 1e, 1f, 1g, and 1h.

What is the purpose of Indicator 1d.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 1d:
- [Common Core State Standards for Mathematics (CCSSM)](#)
- [K-8 Publishers' Criteria for the CCSSM (Summer 2012)](#)
- [Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for K-8 Mathematics](#)
- [Achieve EQuIP Rubric for Lessons & Units](#)

Research or Standards connection for Indicator 1d.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 1d:
- Video: "The Balance Between Skills and Understanding" (The Hunt Institute)
- Focus in Mathematics
- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents

Resources for Indicator 1d.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 1d Guiding Question:

Do the materials give all students extensive work with grade-level problems to meet the full intent of grade-level standards?

Evidence Collection

For Indicator 1d:
Are all grade-level standards present? If not, which ones are not present?

Do the materials engage all students in extensive work with grade-level problems? Identify where and how the materials engage all students in extensive work with grade-level problems. Include evidence of standards where extensive work is not present. To determine if extensive work has been given for a standard, consider the following questions:
- Are there multiple, varied opportunities (across different types of problems, tasks, and assessments) for students to engage extensively with the grade-level standards?
- Are any standards not addressed or not fully represented in depth through grade-level problems?
- Is this work presented consistently throughout the materials, or is it limited to certain sections or units?
- Have all aspects/parts of a standard been addressed? (Standards with more parts or aspects might require

a different amount of problems than standards with fewer parts or aspects.)

Do all students engage with the full intent of grade-level standards? Identify where and how the materials engage all students with the full intent of grade-level standards. Include evidence of standards where the full intent is not met.

If the materials include activities that have differentiation suggestions, are they engaging all students with GRADE-LEVEL problems? Note any differences in the ways in which different populations engage with grade-level problems. Also note if there is guidance for teachers to inform differentiation options.

Mathematically Reasonable:
For this indicator, mathematically reasonable refers to the extent to which the off-grade level math (above or below) supports student understanding of grade level mathematics concepts.

For Indicator 1d.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 1d cluster meeting:

Consider the following question(s) as evidence is synthesized:

- Are there any grade-level standards absent from the materials? Evidence must be provided for all grade-level standards absent in the materials.
- Do the materials engage all students in extensive work with grade-level problems? Please explain.
- Do all students engage with the full intent (all aspects) of grade-level standards. Evidence must be provided for all grade-level standards that are missing aspects of the standards.
- Do the materials include activities that have differentiation suggestions? If so, are they engaging all students with GRADE-LEVEL problems?
- Does the amount of off-grade-level content (even if it is mathematically reasonable) negatively impact students' work with grade-level content to meet the full intent of the grade-level standards? If yes, include evidence that explains which grade-level standards are affected.

Discussion questions for the Indicator 1d.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)?

Math K-8 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 grade level. AND ● Materials provide opportunities for students to independently demonstrate conceptual understanding throughout the grade level.	● Materials do not develop conceptual understanding throughout the grade level. OR ● Materials do not provide opportunities for students to independently demonstrate conceptual understanding throughout the grade level.	● Materials do not develop conceptual understanding throughout the grade level. AND ● Materials do not provide opportunities for students to independently demonstrate conceptual understanding throughout the grade level.

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)
- K-8 Publishers' Criteria for the CCSSM (Summer 2012)
- 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

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
- Reading: "Principles To Actions", (NCTM) p. 42-48
- Video: "The Balance Between Skills and Understanding" (The Hunt Institute)
- Video: "Mathematics Fluency: A Balanced Approach" (The Hunt Institute)
- Video: "Building Conceptual Understanding in Mathematics" (NCTM)
- Video: "Conceptual Understanding Excerpt" (The Hunt Institute)
- Concrete Representational Abstract: Instructional Sequence for Mathematics

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, beyond solving a single math problem.

Example: In Grade 4, students use their understanding of place value and properties of operations to perform multi-digit arithmetic.

Note: The use of manipulatives does not necessarily indicate conceptual understanding. Conceptual understanding can be developed without the use of manipulatives.

Do materials feature conceptual problems and discussion questions, including brief conceptual problems with low computational difficulty?
- Example: 11 + 6 = __ + 2
- Example: Find a number greater than 3/5 and less than .75.
- Example: A fraction divided by a fraction is always/sometimes/never less than the original fraction.

Determine if the materials offer opportunities for students to engage with concrete and semi-concrete representations, as well as verbalization and writing, when developing conceptual understanding. For independent demonstration, student opportunities should not be guided or supported by teacher direction. For example:
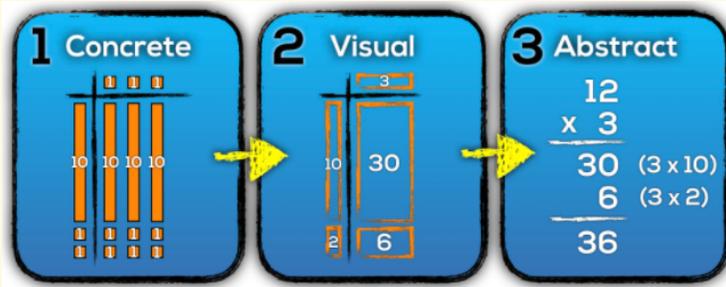
Do the materials develop cluster(s) and/or standard(s) that specifically relate to conceptual understanding? (Consider the whole grade level.)
- If yes, provide evidence that explains how the materials develop conceptual understanding including unit, lesson, and lesson part for reference for all examples.
- If no, specifically list any standards and/or clusters that attend to conceptual understanding and are not developed by the materials. Describe how the conceptual understanding is not developed.

Examples of specific standards/clusters include, but are not limited to:

Grade	Standards
Kindergarten	K.CC.4 K.OA.1, 3, 4 K.NBT
Grade 1	1.OA.B, 6 1.NBT.B 1.NBT.C
Grade 2	2.OA.C 2.NBT.1, 7 2.MD.6
Grade 3	3.OA.1, 2, B 3.NF 3.MD.C
Grade 4	4.NBT.A 4.NBT.5, 6 4.NF
Grade 5	5.NBT.A, 6, 7 5.NF.1, 3, 4, 5 5.MD.C
Grade 6	6.RP.A 6.NS.5, 6, 7 6.EE.3-6
Grade 7	7.NS.1, 2 7.EE.A 7.SP.1, 5

Grade 8	8.EE.B 8.F.A 8.G.A

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.
    - o Describe how specific supports and/or routines allow MLL students to access grade-level instruction/content and negotiate meaning.
    - o Describe how language supports and scaffolds are aligned to academic tasks and address the four domains of language (speaking, listening, reading, and writing).
    - o 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.
    - o 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 provide opportunities for students to independently demonstrate conceptual understanding throughout each grade?

- Do the materials have a consistent lesson structure for developing conceptual understanding and where students independently demonstrate conceptual understanding?
- Do the instructional materials provide opportunities for students to independently demonstrate conceptual understanding throughout the grade?

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?

Math K-8 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 grade level. AND ● Materials provide opportunities for students to independently demonstrate procedural skills and fluencies throughout the grade level.	● Materials do not develop procedural skills and fluencies throughout the grade level. OR ● Materials do not provide opportunities for students to independently demonstrate procedural skills and fluencies throughout the grade level.	● Materials do not develop procedural skills and fluencies throughout the grade level. AND ● Materials do not provide opportunities for students to independently demonstrate procedural skills and fluencies throughout the grade level.

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)](#)
- [K-8 Publishers' Criteria for the CCSSM (Summer 2012)](#)
- [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](#)

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](#)
- Reading: "Principles To Actions", (NCTM) p. 42-48
- [Video: "The Balance Between Skills and Understanding" (The Hunt Institute)](#)
- [Video: "Mathematics Fluency: A Balanced Approach" (The Hunt Institute)](#)
- [Concrete Representational Abstract: Instructional Sequence for Mathematics](#)

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 Questions:

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

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

Evidence Collection

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

Procedural skill and fluency may not be addressed in every unit, but should be addressed over the grade, especially with those standards that explicitly call for fluency.

Collect evidence from each unit that shows how the materials develop procedural skill and fluency and where students independently demonstrate procedural skill and fluency.

Identify where there are opportunities for students to progress toward fluency and procedural skill interwoven with students' developing conceptual understanding.

Note whether the materials include a specific section in units/chapters/lessons, etc. that are specifically designed for procedural skill and fluency.

Examples of specific standards/clusters include, but are not limited to:

Grade	Standards
Kindergarten	K.OA.5
Grade 1	1.OA.6
Grade 2	2.OA.2 2.NBT.5
Grade 3	3.OA.7 3.NBT.2

Grade 4	4.NBT.4
Grade 5	5.NBT.5
Grade 6	6.NS.2 6.NS.3 6.EE.1
Grade 7	7.NS.2d 7.EE.4a 7.G.5
Grade 8	8.EE.1 8.EE.7 8.EE.8b

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:

Consider the following question(s) as evidence is synthesized:
- How do the materials develop students' procedural skill and fluency throughout each grade?
- How do the materials provide opportunities for students to independently demonstrate procedural skill and fluency throughout each grade?
- Do the materials have a consistent lesson structure for developing procedural skill and fluency and where students independently demonstrate procedural skill and fluency?
- Based on the student-facing materials, how do students independently demonstrate procedural skill and fluency?

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?

Math K-8 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 grade level. AND ● Materials provide opportunities for students to independently demonstrate multiple routine and non-routine applications of the mathematics throughout the grade level.	● Materials do not include multiple routine and non-routine applications of the mathematics throughout the grade level. OR ● Materials do not provide opportunities for students to independently demonstrate multiple routine and non-routine applications of the mathematics throughout the grade level.	● Materials do not include multiple routine and non-routine applications of the mathematics throughout the grade level. AND ● Materials do not provide opportunities for students to independently demonstrate multiple routine and non-routine applications of the mathematics throughout the grade level.

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 MLLs to fully and completely	● 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.

	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 2c, 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)
- K-8 Publishers' Criteria for the CCSSM (Summer 2012)
- 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

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
- Reading: "Principles To Actions", (NCTM) p. 42-48
- Video: "The Balance Between Skills and Understanding" (The Hunt Institute)
- Video: "Mathematics Fluency: A Balanced Approach" (The Hunt Institute)
- Video: "Building Conceptual Understanding in Mathematics" (NCTM)
- Video: "Conceptual Understanding Excerpt" (The Hunt Institute)
- Concrete Representational Abstract: Instructional Sequence for Mathematics
- Achieve the Core: Situation Types for Operations in Word Problems

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 grade level?

Do the instructional materials provide opportunities for students to independently demonstrate application of mathematical concepts and skills in real-world contexts throughout the grade level?

Evidence Collection

For Indicator 2c:
Application problems often, but not always, present a real-world scenario. Students have opportunities to both employ a prescribed mathematical strategy and choose their own strategy to find a solution. Example: students apply knowledge about multiplication (Grade 3) to calculate volume (Grade 5).

Collect evidence of problems/activities that align to the standards/clusters for each grade level that address application. Note whether the materials include a specific section in units/chapters/lessons, etc. that is specifically designed for application.

Collect evidence of problems/activities where students independently demonstrate applying mathematics. Evidence should include students solving problems in a variety of contexts, and students should be able to make their own assumptions or simplifications in order to model the contexts mathematically.

Routine applications are prescriptive word problems that provide a situation and a question. They have a real world context, but the problems generally include all necessary (and no extraneous) information. The problems are designed to elicit particular mathematical strategies. The correct answers are usually pre-determined.

Non-Routine applications include unfamiliar/novel contexts. These problems often present a real world scenario, and students employ their choice of mathematical strategies to find a solution. Thus, the problem is

open in the middle and closed at the beginning and end. Target answers are known, although the solutions may be allowed to have some variation.

Collect evidence from the materials of multiple routine and non-routine applications of the mathematics throughout the grade level.

Collect evidence of opportunities for students to independently demonstrate multiple routine and non-routine applications of mathematics throughout the grade level.

Examples of specific standards/clusters that address application include, but are not limited to:

Grade	Standards
Kindergarten	K.OA.2 K.G.1
Grade 1	1.OA.A 1.MD.4
Grade 2	2.OA.A 2.MD.5, 8, 10
Grade 3	3.OA.3, 8 3.MD.A, D
Grade 4	4.OA.A 4.NF.3d, 4.NF.4c 4.MD.2
Grade 5	5.NF.2, 6, 7c 5.MD.5b 5.G.2
Grade 6	6.RP.3 6.NS.1 6.EE.7, 9
Grade 7	7.RP.A 7.NS.3 7.EE.3
Grade 8	8.EE.8c 8.F.B 8.G.7

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 each grade?
- How do the materials provide opportunities for students to independently demonstrate multiple routine and non-routine applications throughout each grade?
- 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?

Math K-8 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 grade-level content standards, as expected 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 grade-level content standards, as expected by the mathematical practice standards.

2e Scoring:

1 point	0 points
● There is intentional development of MP1 to meet its full intent in connection to grade-level content.	● There is no intentional development of MP1 to meet its full intent in connection to grade-level content.

2e.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 MP1: Make sense of problems and persevere in solving them, for students, in connection to the grade-level content standards, as expected by the mathematical practice standards.	● 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.	● 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 into grade-level learning. Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of activities or problems that stimulate

students to develop the habits of mind described in the practice standards. This indicator specifically looks at MP 1 which addresses overarching, mathematical practices. 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 and b) fully developed across the grade level.

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)](#)
- [K-8 Publishers' Criteria for the CCSSM (Summer 2012)](#)
- [Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for K-8 Mathematics](#)
- [Achieve EQuIP Rubric for Lessons & Units](#)

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
- [Mathematical Practices Compilation](#)

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 grade level, is MP1 used to enrich the mathematical content?

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

Evidence Collection

For Indicator 2e:
Look through all teacher and student materials to ensure that MP1 is developed throughout the grade level. This includes, but is not limited to: lessons, unit overviews, scope and sequence charts, and/or other instructional guides.

Record any instances where MP1 is misleading in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part of the lesson addresses the MP).

To check that MP1 is connected to grade-level content and are developed to its full intent, look at lessons, assessments, and any examples/descriptions of anticipated student work that require students to:

MP1
Analyze and make sense of problems: actively engage in solving problems by working to understand the information in the problems and the questions asked.
Use a variety of strategies that make sense to solve the problem.
Monitor and evaluate their progress in solving problems.
Determine if their answers make sense.
Reflect on and revise their problem solving strategy.
Devise strategies independently.

Look at teacher directions and how teachers are guided to carry out the lessons so that students are engaged in the MP. 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,
- ask clarifying and probing questions, and
- create reflection opportunities.

Check to see if any of the materials address only the Standards for Mathematical Practice (meaning they are not connected to grade-level mathematical content). Record any instances where the Standards for Mathematical Practice are not connected to the grade-level mathematics content.

Across the grade level, verify that students use the MP to its full intent (all aspects) within the materials.

Review all aspects of teacher and student-facing materials. If MP1 is only located in a specific part of the teacher 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 connected to the content. Look where the MP is identified, but also look at places where they are 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 grade-level mathematical content?
- In what ways do the students use the MP to its full intent across the grade level?
- 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?

Math K-8 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 grade-level content standards, as expected 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 grade-level content standards, as expected by the mathematical practice standards.

2f Scoring:

1 point	0 points
● There is intentional development of MP2 to meet its full intent in connection to grade-level content.	● There is no intentional development of MP2 to meet its full intent in connection to grade-level content.

2f.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 MP2: Reason abstractly and quantitatively, for students, in connection to the grade-level content standards, as expected by the mathematical practice standards.	● 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.	● 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 into grade-level learning. Over the course of any given year of instruction, each

mathematical practice standard is meaningfully present through activities or problems that stimulate students to develop the habits of mind described in the practice standards. This indicator specifically examines MP2 by determining whether the provided opportunities for student engagement with the practice are: a) connected to the mathematical content of the grade level, and b) fully developed across the grade level.

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)
- K-8 Publishers' Criteria for the CCSSM (Summer 2012)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for K-8 Mathematics
- Achieve EQuIP Rubric for Lessons & Units

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
- Mathematical Practices Compilation

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 grade level, is MP2 used to enrich the mathematical content?

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

Evidence Collection

For Indicator 2f:
Look through all teacher and student materials to ensure that MP2 is developed throughout the grade level. This includes, but is not limited to: lessons, unit overviews, scope and sequence charts, and/or other instructional guides.

Record any instances where MP2 is misleading in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part of the lesson addresses the MP).

To check that MP2 is connected to grade-level content and is developed to its full intent, look at lessons, assessments, and any examples/descriptions of anticipated student work that require students to:

MP2
Consider units involved in a problem and attend to the meaning of quantities.
Represent situations symbolically.
Explain/discuss what the numbers or symbols in an expression/equation represent.
Understand the relationships between problem scenarios and mathematical representations.

Look at teacher directions and how teachers are guided to carry out the lessons so that students are engaged in the MP. In particular, look for places where teachers are expected to:
- ensure students make connections between mathematical representations and scenarios
- ask clarifying and probing questions,
- model the use of mathematical symbols and notation,
- support students in analyzing quantities and their relationships, and
- facilitate connections between multiple representations.

Check to see if any of the materials address only the Standards for Mathematical Practice (meaning they are not connected to grade-level mathematical content). Record any instances where the Standards for Mathematical Practice are not connected to the grade-level mathematics content.

Across the grade level, verify that students use the MP to its full intent (all aspects) within the materials.

Review all aspects of teacher and student-facing materials. If MP2 is only located in a specific part of the teacher 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 connected to the content. Look where the MP is identified, but also look at places where they are 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 grade-level mathematical content?
● In what ways do the students use the MP to its full intent across the grade level?
● 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?

Math K-8 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 grade-level content standards, as expected 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 grade-level content standards, as expected by the mathematical practice standards.

2g Scoring:

1 point	0 points
• There is intentional development of MP3 to meet its full intent in connection to grade-level content.	• There is no intentional development of MP3 to meet its full intent in connection to grade-level content.

2g.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 MP3: Construct viable arguments and critique the reasoning of others, in connection to the grade-level content standards, as expected by the mathematical practice standards.	• 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.	• 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 into grade-level learning. Over the course of any given year of instruction, each

mathematical practice standard is meaningfully present through activities or problems that stimulate students to develop the habits of mind described in the practice standards. This indicator specifically examines MP3 by determining whether the provided opportunities for student engagement with the practice are: a) connected to the mathematical content of the grade level, and b) fully developed across the grade level.

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)
- K-8 Publishers' Criteria for the CCSSM (Summer 2012)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for K-8 Mathematics
- Achieve EQuIP Rubric for Lessons & Units

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
- Mathematical Practices Compilation

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 grade level, is MP3 used to enrich the mathematical content?

Across the grade level, is there intentional development of MP3 that reaches the full intent of the MP?

Evidence Collection

For Indicator 2g:
Look through all teacher and student materials to ensure that MP3 is developed throughout the grade level. This includes, but is not limited to: lessons, unit overviews, scope and sequence charts, and/or other instructional guides.

Record any instances where MP3 is misleading in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part of the lesson addresses the MP).

To check that MP3 is connected to grade-level content and is developed to its full intent, look at lessons, assessments, and any examples/descriptions of anticipated student work that require students to:

Construct Viable Arguments	Critique the Reasoning of Others
Construct mathematical arguments.	Perform error analysis of provided student work/solutions/arguments.
Explain/justify their strategies and thinking orally or in writing using concrete models, drawings, actions, or numbers.	Listen to or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.
Create their own conjectures.	

Look at teacher directions and how teachers are guided to carry out the lessons so that students are engaged in the MP. In particular, look for places where teachers are expected to:
- provide opportunities for students to engage in discourse to construct and/or critique mathematical arguments,
- set explicit expectations across the year for explaining, showing, justifying, and proving,
- present solutions to mathematical problems in the form of an argument,
- ask clarifying and probing questions, and
- help students compare methods and strategies.

Check to see if any of the materials address only the Standard for Mathematical Practice (meaning it is not connected to grade-level mathematical content). Record any instances where the Standard for Mathematical Practice is not connected to the grade-level mathematics content.

Across the grade level, verify that students use the MP to its full intent within the materials.

Review all aspects of teacher and student-facing materials. If MP3 is only located in a specific part of the teacher 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 connected to the content. Look where the MP is identified, but also look at places where it is not identified.

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 grade-level mathematical content?
- In what ways do the students use MP3 to its full intent across the grade level?
- 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?

Math K-8 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 grade-level content standards, as expected 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 grade-level content standards, as expected by the mathematical practice standards.

2h Scoring:

1 point	0 points
● There is intentional development of MP4 to meet its full intent in connection to grade-level content.	● There is no intentional development of MP4 to meet its full intent in connection to grade-level content.

2h.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 MP4: Model with mathematics, for students, in connection to the grade-level content standards, as expected by the mathematical practice standards.	● 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.	● 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 into grade-level learning. Over the course of any given year of instruction, each mathematical practice standard is meaningfully present through activities or problems that stimulate students to

develop the habits of mind described in the practice standards. This indicator specifically examines MP4 by determining whether the provided opportunities for student engagement with the practice are: a) connected to the mathematical content of the grade level, and b) fully developed across the grade level.

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)
- K-8 Publishers' Criteria for the CCSSM (Summer 2012)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for K-8 Mathematics
- Achieve EQuIP Rubric for Lessons & Units

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
- Mathematical Practices Compilation
- 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".)

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 grade level, is MP4 used to enrich the mathematical content?

Across the grade level, is there intentional development of MP4 that reaches the full intent of the MP?

Evidence Collection

For Indicator 2h:
Look through all teacher and student materials to ensure that MP4 is developed throughout the grade level. This includes, but is not limited to: lessons, unit overviews, scope and sequence charts, and/or other instructional guides.

Record any instances where MP4 is misleading in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part of the lesson addresses the MP).

To check that MP4 is connected to grade-level content and developed to its full intent, look at lessons, assessments, and any examples/descriptions of anticipated student work that require students to:

MP4
Put the problem or situation in their own words and identify important information in the problem or situation.
Use the math they know to solve problems and everyday situations.
Model the situation with an appropriate representation and use an appropriate strategy (part-part- whole, bar model, place value chart, etc.).
Describe what they do with the model(s) and how it relates to the problem situation.
Check to see whether an answer makes sense and change the model when necessary.

Look at teacher directions and how teachers are guided to carry out the lessons so that students are engaged in the MP. 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, and
- promote discourse and investigation.

Check to see if any of the materials address only the Standards for Mathematical Practice (meaning they are not connected to grade-level mathematical content). Record any instances where the Standards for Mathematical Practice are not connected to the grade-level mathematics content.

Across the grade level, verify that students use the MP to its full intent within the materials.

Review all aspects of teacher and student-facing materials. If MP4 is only located in a specific part of the teacher 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 connected to the content. Look where the MP is identified, but also look at places where they are 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 grade-level mathematical content?
- In what ways do the students use the MP to its full intent across the grade level?

- 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?

Math K-8 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 grade-level content standards, as expected 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 grade-level content standards, as expected by the mathematical practice standards.

2i Scoring:

1 point	0 points
● There is intentional development of MP5 to meet its full intent in connection to grade-level content.	● There is no intentional development of MP5 to meet its full intent in connection to grade-level content.

2i.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 MP5: Choose tools strategically, for students, in connection to the grade-level content standards, as expected by the mathematical practice standards.	● Materials provide strategies and supports for MLLs to participate in the intentional development 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.	● Materials do not provide strategies and supports for MLLs full and complete 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 into grade-level learning. Over the course of any given year of instruction, each mathematical practice standard is meaningfully present through activities or problems that stimulate students to develop the habits of mind described in the practice standards. This indicator specifically examines MP5 by

determining whether the provided opportunities for student engagement with the practice are: a) connected to the mathematical content of the grade level, and b) fully developed across the grade level.

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)](#)
- [K-8 Publishers' Criteria for the CCSSM (Summer 2012)](#)
- [Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for K-8 Mathematics](#)
- [Achieve EQuIP Rubric for Lessons & Units](#)

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
- [Mathematical Practices Compilation](#)

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 grade level, is MP5 used to enrich the mathematical content?

Across the grade level, is there intentional development of MP5 that reaches the full intent of the MP?

Evidence Collection

For Indicator 2i:

Look through all teacher and student materials to ensure that MP5 is developed throughout the grade level. This includes, but is not limited to: lessons, unit overviews, scope and sequence charts, and/or other instructional guides.

Record any instances where MP5 is misleading in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part of the lesson addresses the MP).

To check that MP5 is connected to grade-level content and developed to its full intent, look at lessons, assessments, and any examples/descriptions of anticipated student work that require students to:

MP5
Choose appropriate tools and/or strategies that will help develop their mathematical knowledge.
Recognize both the insight to be gained from different tools/strategies and their limitations.
Use technological tools, as appropriate, to explore and deepen their mathematical understanding.
Know how to use a variety of tools, or whether to use tools at all.

Look at teacher directions and how teachers are guided to carry out the lessons so that students are engaged in the MP. In particular, look for places where teachers are expected to:
- make a variety of tools available,
- allow student to have choice when selecting tools,
- demonstrate the use of tools effectively, including their benefits and limitations, and
- encourage the use of multiple tools for communication, calculation, investigation, sense-making, etc.

Check to see if any of the materials address only the Standards for Mathematical Practice (meaning they are not connected to grade-level mathematical content). Record any instances where the Standards for Mathematical Practice are not connected to the grade-level mathematics content.

Across the grade level, verify that students use the MP to its full intent within the materials.

Review all aspects of teacher and student-facing materials. If MP5 is only located in a specific part of the teacher 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 connected to the content. Look where the MP is identified, but also look at places where they are 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 grade-level mathematical content?
- In what ways do the students use the MP to its full intent across the grade level?
- 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?

Math K-8 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 grade-level content standards, as expected 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 grade-level content standards, as expected by the mathematical practice standards.

2j Scoring:

1 point	0 points
● There is intentional development of MP6 to meet its full intent in connection to grade-level content.	● There is no intentional development of MP6 to meet its full intent in connection to grade-level content.

2j.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 MP6: Attend to precision, for students, in connection to the grade-level content standards, as expected by the mathematical practice standards.	● 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.	● 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 into grade-level learning. Over the course of any given year of instruction, each mathematical practice standard is meaningfully present through activities or problems that stimulate students to

develop the habits of mind described in the practice standards. This indicator specifically examines MP6 by determining whether the provided opportunities for student engagement with the practice are: a) connected to the mathematical content of the grade level, and b) fully developed across the grade level.

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)
- K-8 Publishers' Criteria for the CCSSM (Summer 2012)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for K-8 Mathematics
- Achieve EQuIP Rubric for Lessons & Units

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
- Mathematical Practices Compilation

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 grade level, is MP6 used to enrich the mathematical content?

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

Across the grade level, is the specialized language of mathematics intentionally developed?

Evidence Collection

For Indicator 2j:

Look through all teacher and student materials to ensure that MP6 and the specialized language of mathematics are developed throughout the grade level. This includes, but is not limited to: lessons, unit overviews, scope and sequence charts, and/or other instructional guides.

Record any instances where MP6 is misleading in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part of the lesson addresses the MP).

Record any instances where the specialized language of mathematics is misleading and/or erroneous in the curricular materials (e.g. the materials use made up words versus mathematical terminology, the use of symbols is incorrect or confusing, etc.).

To check that MP6 is connected to grade-level content and is developed to it full intent, look at lessons, assessments and any examples/descriptions of anticipated student work that require students to:
- communicate using grade-level appropriate vocabulary and conventions,
- formulate clear explanations,
- state the meaning of symbols,
- calculate accurately and efficiently,
- specify units of measure,
- use and label tables, graphs, etc. appropriately, and
- introduce and use definitions accurately.

Look at teacher directions and how teachers are guided to carry out the lessons so that students are engaged in the MPs. 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), and
- provide feedback to students on the accurate use of mathematical language.

Ensure that mathematical definitions and terminology are precise and accurate (e.g. "commutative property" versus "flip-flop"; using rate/ratio/fraction/proportion precisely; using accurate geometric terminology, even at young ages). Provide specific examples of vocabulary, symbols, numbers, etc. that are not used accurately and precisely.

Check to see if any of the materials address only the Standard for Mathematical Practice (meaning it is not connected to grade-level mathematical content). Record any instances where the Standard for Mathematical Practice is not connected to the grade-level mathematics content.

Across the grade level, verify that students use the MP to its full intent within the materials.

If MP6 is only located in a specific part of the teacher 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 connected to the content. Look 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 grade-level mathematical content?
- In what ways do the students use MP6 to its full intent across the grade level?
- 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?

Math K-8 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 grade-level content standards, as expected 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 grade-level content standards, as expected by the mathematical practice standards.

2k Scoring:

1 point	0 points
● There is intentional development of MP7 to meet its full intent in connection to grade-level content.	● There is no intentional development of MP7 to meet its full intent in connection to grade-level content.

2k.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 MP7: Look for and make use of structure for students, in connection to the grade-level content standards, as expected by the mathematical practice standards.	● 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.	● 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 meaningful integration of the Standards for Mathematical Practice into grade-level learning. Over the course of any given year of instruction, each mathematical practice standard is meaningfully present through activities or problems that stimulate students to

develop the habits of mind described in the practice standards. This indicator specifically examines MP7 by determining whether the provided opportunities for student engagement with the practice are: a) connected to the mathematical content of the grade level, and b) fully developed across the grade level.

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)
- K-8 Publishers' Criteria for the CCSSM (Summer 2012)
- Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for K-8 Mathematics
- Achieve EQuIP Rubric for Lessons & Units

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
- Mathematical Practices Compilation

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 grade level, is MP7 used to enrich the mathematical content?

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

Evidence Collection

For Indicator 2k:
Look through all teacher and student materials to ensure that MP7 is developed throughout the grade-level. This includes, but is not limited to: lessons, unit overviews, scope and sequence charts, and/or other instructional guides.

Record any instances where MP7 is misleading in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part of the lesson addresses the MP).

To check that MP7 is connected to grade-level content and are developed to their full intent, look at lessons, assessments, and any examples/descriptions of anticipated student work that require students to:

MP7
Look for patterns or structures to make generalizations and solve problems.
Look for and explain the structure within mathematical representations.
Analyze a problem and look for more than one approach.
Look at and decompose "complicated" into "simpler" things.

Look at teacher directions and how teachers are guided to carry out the lessons so that students are engaged in the MP. In particular, look for places where teachers are expected to:
- provide tasks/problems with patterns,
- prompt students to look for and describe structure and/or patterns,
- provide situations in which students can use a strategy to develop understanding of a concept, and
- provide a variety of examples that explicitly focus on patterns and repeated reasoning.

Check to see if any of the materials address only the Standards for Mathematical Practice (meaning they are not connected to grade-level mathematical content). Record any instances where the Standards for Mathematical Practice are not connected to the grade-level mathematics content.

Across the grade level, verify that students use the MP to its full intent within the materials.

Review all aspects of teacher and student-facing materials. If MP7 is only located in a specific part of the teacher 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 connected to the content. Look where the MP is identified, but also look at places where they are 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 grade-level mathematical content?
- In what ways do the students use the MP to its full intent across the grade level?
- In what ways, if any, do the materials provided for teachers enable students to engage with the MP?

F**or 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?

Math K-8 Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 2l	**2l** Materials support the intentional development of MP8: Look for and express regularity in repeated reasoning, for students, in connection to the grade-level content standards, as expected by the mathematical practice standards **2l.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 grade-level content standards, as expected by the mathematical practice standards.

2l Scoring:

1 point	0 points
● There is intentional development of MP8 to meet its full intent in connection to grade-level content.	● There is no intentional development of MP8 to meet its full intent in connection to grade-level content.

2l.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 MP8: Look for and express regularity in repeated reasoning, for students, in connection to the grade-level content standards, as expected by the mathematical practice standards.	● 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.	● 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 2l?
This indicator, along with 2e, 2f, 2g, 2h, 2i, 2j, and 2k, determines the meaningful integration of the Standards for Mathematical Practice into grade-level learning. Over the course of any given year of instruction, each mathematical practice standard is meaningfully present through activities or problems that stimulate students to

develop the habits of mind described in the practice standards. This indicator specifically examines MP7 by determining whether the provided opportunities for student engagement with the practice are: a) connected to the mathematical content of the grade level, and b) fully developed across the grade level.

What is the purpose of Indicator 2l.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 2l:
- [Common Core State Standards for Mathematics (CCSSM)](#)
- [K-8 Publishers' Criteria for the CCSSM (Summer 2012)](#)
- [Student Achievement Partners (SAP) Instructional Materials Evaluation Tool for K-8 Mathematics](#)
- [Achieve EQuIP Rubric for Lessons & Units](#)

Research or Standards connection for Indicator 2l.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 2l:
- [SAP Coherence Map](#)
- [Institute for Mathematics Education Progressions Documents](#)
- [MP8](#): Look for and express regularity in repeated reasoning
- [Mathematical Practices Compilation](#)

Resources for Indicator 2l.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 grade level, is MP8 used to enrich the mathematical content?

Across the grade level, is there intentional development of MP8 that reaches the full intent of the MP?

Evidence Collection

For Indicator 2I:
Look through all teacher and student materials to ensure that MP8 is developed throughout the grade level. This includes, but is not limited to: lessons, unit overviews, scope and sequence charts, and/or other instructional guides.

Record any instances where MP8 is misleading in the curricular materials (e.g. a lesson is marked as aligned to an MP when only a small part of the lesson addresses the MP).

To check that MP8 is connected to grade-level content and are developed to their full intent, look at lessons, assessments, and any examples/descriptions of anticipated student work that require students to:

MP8
Notice repeated calculations to understand algorithms and make generalizations or create efficient, mathematically sound shortcuts.*
Create, describe, explain a general formula, process, method, algorithm, model, etc.
Evaluate the reasonableness of their answers and thinking.
Use repeated reasoning as a tool.

*This is different from mnemonics and "tricks"

Look at teacher directions and how teachers are guided to carry out the lessons so that students are engaged in the MP. In particular, look for places where teachers are expected to:
- provide situations in which students can use a strategy to develop understanding of a concept,
- provide a variety of examples that explicitly focus on patterns and repeated reasoning, and
- prompt students to make generalizations.

Check to see if any of the materials address only the Standards for Mathematical Practice (meaning they are not connected to grade-level mathematical content). Record any instances where the Standards for Mathematical Practice are not connected to the grade-level mathematics content.

Across the grade level, verify that students use the MP to its full intent within the materials.

Review all aspects of teacher and student-facing materials. If MP8 is only located in a specific part of the teacher 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 connected to the content. Look where the MP is identified, but also look at places where they are 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 2l cluster meeting:
Consider the following question(s) as evidence is synthesized:
- When is MP8 identified and connected to grade-level mathematical content?
- In what ways do the students use the MP to its full intent across the grade level?
- In what ways, if any, do the materials provided for teachers enable students to engage with the MP

For the Indicator 2l.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.

Math K-8 Criterion 1.2	Each grade's materials are coherent and consistent with the Standards.
1.2.MLL-1	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	1 point	0 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.	• 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.	• 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

1.2.MLL-1 Guiding Question:

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

Evidence Collection

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

**Note: Materials may plan to develop language through integrating language learning goals over time into the overall math scope and sequence document of the course. The plan itself should be described here, in 1.2.MLL-1. The way the language learning goals manifest in the scope and sequence should be described in 1.2.MLL-2 in accordance with the evidence collection bullets.

Cluster Meeting

- Is language addressed throughout the curriculum?
- Within lessons and units, is there a bridge between everyday and disciplinary ways of talking and if so, is the bridge described?
- Over the course of the curriculum, do language goals/objectives reflect an expectation of increasing

participation in disciplinary discourse practices?
- Where and how do materials provide guidance for teachers to foster conversations using everyday and disciplinary language and distinguishing between the two?
- Do materials guide teachers to connect students' everyday and informal language to disciplinary language and if so, how?
- Do materials provide consistent opportunities for students to develop disciplinary language?
- Are disciplinary discourse practices highlighted in the materials?

Math K-8 Criterion 1.2	Each grade's materials are coherent and consistent with the Standards.
1.2.MLL-2	Materials include a scope & sequence that develops different language learning goals over time (activities, lessons, units, courses), similar to the progression of content and practice learning objectives, to build toward student independence.

Scoring:

1 point	0 points
● 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.	● 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.

1.2.MLL-2 Guiding Question:

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

Evidence Collection

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

Cluster Meeting

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

Math K-8 Criterion 1.2	Each grade's materials are coherent and consistent with the Standards.
1.2.MLL-3	Materials include language goals/objectives that are incorporated at the individual lesson level.

1.2.MLL-3 Scoring

4 points	3 points	2 points	0 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.	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	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	● 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.

1.2.MLL-3 Guiding Question:

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

Evidence Collection

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

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.

K-8 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	1 point	0 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.	● 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.	● 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?

Math K-8 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?

Math K-8 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	0 points
● 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.	● 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?

Math K-8 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?

Math K-8 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?

Math K-8 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?

Math K-8 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	1 point	0 points
• Materials consistently provide guidance to encourage teachers to draw upon student home language to facilitate learning.	• Materials provide guidance to encourage teachers to draw upon student home language to facilitate learning, but not consistently.	• 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)?

Math K-8 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	0 points
● Materials provide scaffolds and supports in an equitable way.	● 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.

K-8 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?

Math K-8 Criterion 1.1	Materials assess grade-level content and give all students extensive work with grade-level problems to meet the full intent of grade-level standards.
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	1 point	0 points
● Materials include a formative assessment plan for language alongside content that consistently includes a connection to established unit/lesson language goals.	● 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.	● 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?

Math K-8 Criterion 1.1	Materials assess grade-level content and give all students extensive work with grade-level problems to meet the full intent of grade-level standards.
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	1 point	0 points
• Materials consistently include guidance for gathering, analyzing, using, and communicating language and content data from formative assessments in a cycle of continuous improvement.	• 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.	• 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?