edreports

Core Content Evidence Guide v2.0

Mathematics

Grades K-8

Gateway 1: Focus and Coherence

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Criterion 1.2: 1c, 1d, 1e, 1f, 1g

Gateway 2: Rigor & Mathematical Practices

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Gateway 1: Focus & Coherence

Criterion 1.1

Focus

Materials assess grade-level content and give all students extensive work with grade-level problems to meet the full intent of grade-level standards.

What is the purpose of this Criterion?

Criterion 1 considers how well the materials focus on college and career ready standards by assessing students on grade-level content and giving all students extensive work with grade-level problems to meet the full intent of grade-level standards.

Research Connection

- 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 High School Mathematics
- Achieve EQuIP Rubric for Lessons & Units
- Focus in Mathematics
- Coherence Map

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• 17-20 points	• 11-16 points	• <11

Gateway 1: Focus & Coherence

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 1a	Materials assess the grade-level content and, if applicable, content from earlier grades.

Scoring:	
2 points • Materials assess grade-level standards or include above-grade assessment items that could be removed or modified without impacting the structure of the materials. • Above-grade items are mathematically reasonable. • For Grades K-5, no topics are explicitly assessed from (i), (ii), or (iii) below.	0 points • Materials include above-grade assessment items that, if removed or modified, would impact the structure of the materials. OR • Above-grade items are not mathematically reasonable. OR • For Grades K-5, topics are explicitly assessed from (i), (ii), or (iii) below.

About this indicator:

What is the purpose of this Indicator?

This indicator, along with indicators 1c, and 1d, determines the shift of Focus. In order to maintain Focus, materials assess grade-level standards. Assessments are determined by the publisher and are series-specific. Content from future grades may be introduced, but students should not be held accountable on assessments for future expectations.

Indicator 1a is focused on the assessments embedded in materials for K-8 grade-level standards which define what students should understand and be able to do in their study of mathematics[1]. ALL standards in the CCSSM should be considered throughout evidence collection for Gateway 1 indicators 1a, 1b, 1c, 1d, 1e, 1f, 1g, and 1h.

Research or Standards connection:

- 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

Resources:

- Video: "The Balance Between Skills and Understanding" (The Hunt Institute)
- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents

[1] "Common Core State Standards for Mathematics" http://www.corestandards.org/Math/

Indicator 1a Guiding Question:

Do assessments address grade-level standards?

Evidence Collection

Look at all interim, unit, and/or summative assessments. Look at scoring rubrics, if available, to determine acceptable responses for the items. If all questions are on grade level, provide evidence of assessment items that are representative of the materials.

For Grades K-5, do the assessments include items addressing the following topics:

(i) Probability, including chance, likely outcomes, and/or probability models?
(ii) Statistical distributions, including center, variation, clumping, outliers, mean, median, mode, range, and/or quartiles; and statistical association or trends, including two-way tables, bivariate measurement data, scatter plots, trend line, line of best fit, and/or correlation?
(iii) Similarity, transformations, and/or congruence?

If above grade-level assessment items are included, for each item, answer the following questions:

- What above-grade-level standard does the item align to? Please explain.
- What instructional activities, including span of time, are associated with the assessment item?
- If you remove or modify the above-grade-level item and any associated activities, would this impact the structure of the materials? Please explain.
- Is the above-grade-level item mathematically reasonable? Please explain.

Mathematically Reasonable:
For this indicator, mathematically reasonable consists of two criteria: number of grade-levels above the current one and time of year when the item occurs. For example, assessing standards that are one grade level above the current one could be mathematically reasonable, or assessing above-grade-level standards at the end of the academic year could be mathematically reasonable. To determine if an above-grade-level item is mathematically reasonable, consider the following questions:

- Is the above grade-level assessment item connected to current grade-level content?
- How many grade levels above is the assessment item?
- What time of year do students encounter the assessment item?

Cluster Meeting

Discuss evidence of grade-level assessment items that are representative of the materials.

Discuss all above-grade-level assessment items and any additional information:

- Which assessment items are mathematically reasonable? Please explain.
- Which assessment items, if removed or modified, would impact the structure of the materials? Please explain.

Gateway 1: Focus & Coherence

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 1b	Assessment information is included in the materials to indicate which standards are assessed.

Scoring:		
2 points • Materials consistently identify the standards and practices assessed for formal assessments.	1 point • Materials consistently identify the standards and/or practices assessed for formal assessments, but do not include all standards and/or practices for the grade or course level.	0 points • Materials do not identify the standards and practices assessed for the formal assessments.

About this indicator:

What is the purpose of this Indicator?

This indicator examines the assessment materials to determine whether they identify the standards being assessed for all formal assessment types. It is important to note that some assessments may be building toward the standards and not intended to measure full depth of the standards; these assessments should identify which aspects of the standards are being assessed and/or being built toward.

Formal assessments are determined by the publisher and could include all types: formative, summative, etc. Reviewers look for a list of standards assessed for the entire assessment and/or associated with each item/task. Reviewers look for evidence of identification only. ALL standards in the CCSSM should be considered throughout evidence collection for Gateway 1 indicators 1a, 1b, 1c, 1d, 1e, 1f, 1g, and 1h.

Indicator 1b Guiding Question:

Does assessment information included in the materials indicate which standards are assessed?

Evidence Collection

Review assessments and corresponding assessment guidance across the series. *Note: this is not an item analysis.

Look for and record evidence to:

- Describe how and where assessments clearly identify which standards are being assessed. Include the level at which the assessment is given (unit, lesson, etc.) and the level at which standards are identified (assessment, task, item, etc.).

- Describe any instances where standards are listed incorrectly or are not from the appropriate grade level/band.
- In the event that the assessments build toward grade-level or grade-band standards, describe whether the assessment information identifies which aspects of the standards are assessed. Also, describe how and where the materials include information that details how the assessments build toward the standards for the grade level or band.

Cluster Meeting

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

- Where and how do the materials clearly identify which standards are assessed?
- Do the standards correlations or assessment guidance documents indicate if all standards for the grade level/band are assessed by the end of the grade level/band?
- If assessments are building towards the standards, do the materials identify which aspects of the standards are being assessed and how these contribute to building toward grade-level/grade-band standards?

Gateway 1: Focus & Coherence

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 1c	Assessments include opportunities for students to demonstrate the full intent of grade-level/course-level standards and practices across the series.

Scoring:		
4 points • Assessments include opportunities for students to demonstrate the full intent of grade-level/course-level standards and practices across the series.	2 points • Assessments do not include opportunities for students to demonstrate the full intent of grade-level/course-level standards across the series. OR • Assessments do not include opportunities for students to demonstrate the full intent of grade-level/course-level practices across the series.	0 points • Assessments do not include opportunities for students to demonstrate the full intent of grade-level/course-level standards and practices across the series.

About this indicator:

What is the purpose of this Indicator?

This indicator, along with indicators 1a, and 1d, determines the shift of Focus. In order to maintain Focus, materials assess grade-level standards. This indicator examines the assessments within and across the materials to determine whether they include a variety of assessment types that are constructed in a manner that allows for the depth of the grade-level standards and practices to be assessed.

ALL standards in the CCSSM should be considered throughout evidence collection for Gateway 1 indicators 1a, 1b, 1c, 1d, 1e, 1f, 1g, and 1h. The Mathematical Practices are considered for this indicator as well.

Research or Standards connection:

- 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
- CCSSO Criteria for High Quality Assessment: Section C - Align to Standards - Mathematics

Resources:

- Video: "The Balance Between Skills and Understanding" (The Hunt Institute)
- Focus in Mathematics
- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents

Indicator 1c Guiding Question:

Do the assessments include opportunities for students to demonstrate the full intent of grade-level/course-level standards and practices across the series?

Evidence Collection

Review assessments and corresponding assessment guidance across the series.

Look for and record evidence to:

- Describe the different types of modalities used in student assessments (e.g., writing, illustrating, demonstrating, modeling, oral presentations, and performance tasks) and explain how they ensure students can fully demonstrate the intent of grade-level standards and mathematical practices.
- Describe the different types of items used for student assessments (e.g., performance tasks, discussion questions, constructed response questions, project- or problem-based tasks, portfolios, justified multiple choice) and explain how they are designed to measure student performance while fully addressing the intent of grade-level standards and mathematical practices.
- Demonstrate that assessments address sufficient complexity to ensure students engage meaningfully with the full intent of grade-level standards and mathematical practices.

Cluster Meeting

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

- Do the assessments include a variety of modalities (e.g., writing, illustrating, demonstrating, modeling, oral presentations, and performance tasks), and how do these modalities ensure students can fully demonstrate the intent of grade-level standards and mathematical practices across different assessments, grades/courses, and series?
- Do the assessments include a variety of item types (e.g., performance tasks, discussion questions, constructed response questions, project- or problem-based tasks, portfolios, justified multiple choice), and how are these item types designed to fully develop and measure the intent of grade-level standards and mathematical practices across different assessments, grades/courses, and series?
- Is there an appropriate balance of complexity in assessment tasks to ensure that students are provided opportunities to fully engage with and demonstrate the intent of grade-level standards and mathematical practices?

Gateway 1: Focus & Coherence

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	Materials give all students extensive work with grade-level problems to meet the full intent of grade-level standards.

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

About this indicator:

What is the purpose of this Indicator?

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.

Research or Standards connection:

- 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

Resources:

- Video: "The Balance Between Skills and Understanding" (The Hunt Institute)
- Focus in Mathematics
- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents

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

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.

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.

Gateway 1: Focus & Coherence

Criterion 1.2

Coherence
Each grade's materials are coherent and consistent with the Standards.

What is the purpose of this Criterion?

In Criterion 2, reviewers consider the coherence of the materials by examining:

- how much of the materials address the major clusters of the grade,
- the connections between major and supporting standards within each grade,
- the connections between two or more clusters in a domain, or two or more domains in a grade, and
- the connections between grade-level standards to prior and future-grade-level standards.

Research Connection

- 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 High School Mathematics
- Achieve EQuIP Rubric for Lessons & Units

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• 7-8 points	• 5-6 points	• <5 points

Gateway 1: Focus & Coherence

Criterion 1.2	Each grade's materials are coherent and consistent with the Standards.
Indicator 1e	When implemented as designed, the majority of the materials focus on the major clusters of each grade.

Scoring:	
2 points ● The materials, when implemented as designed, focus on the major clusters of the grade. ○ K-2 at least 75% ○ 3-8 at least 65%	0 points ● Less than the majority of the materials, when implemented as designed, focus on the major clusters of the grade. ○ K-2 < 75% ○ 3-8 <65%

About this indicator:

What is the purpose of this Indicator?

This indicator, along with indicators 1f, 1g, and 1h, determines the shift of Coherence. This indicator addresses coherence within the grade level by examining if the majority of the materials focus on the major clusters of the grade, including connections between major and supporting clusters.

This indicator is informed by the other indicators in Coherence and should be reviewed at the end of Gateway 1. ALL standards in the CCSSM should be considered throughout evidence collection for Gateway 1 indicators 1a, 1b, 1c, 1d, 1e, 1f, 1g, and 1h.

Research or Standards connection:

- 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

Resources:

- Video: "The Balance Between Skills and Understanding" (The Hunt Institute)
- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- Focus Component 2: Major Clusters of the Grade

Indicator 1e Guiding Question:

Do at least 75% (Grades K-2) and 65% (Grades 3-8) of the materials, when implemented as designed, focus on the major clusters of the grade?

Evidence Collection

This indicator is informed by the other indicators in Coherence and should be reviewed at the end of Gateway 1. Connections between supporting work and major work should be included in the calculations for different perspectives.

Collect evidence in the Table provided in the 1c Reviewer Evidence Collection document.

For this indicator, you should consider multiple perspectives when collecting evidence, including:

- Units/chapters (including assessments):
  - List the units/chapters that address the major work of the grade and connections between supporting and major work.
  - Explain the specific standards/clusters being addressed.
  - What percent of units/chapters address the major work of the grade and connections between supporting and major work?
  - State the units/chapters included in the numerator and denominator of your calculation.
- Lessons/Activities (including assessments):
  - List the lessons/activities that address the major work of the grade and connections between supporting and major work.
  - Explain the specific standards/clusters being addressed.
  - What percent of lessons/activities address the major work of the grade and connections between supporting and major work?
  - State the units/chapters included in the numerator and denominator of your calculation.
- Instructional Time (including assessments):
  - Time can be days, hours, weeks, or minutes. For materials where a lesson equals a day, please note above, and use minutes as a measure for this perspective.
  - List the amounts of instructional time that address the major work of the grade and connections between supporting and major work.
  - Explain the specific standards/clusters being addressed.
  - What percent of instructional time addresses the major work of the grade and connections between supporting and major work?
  - State the amounts of instructional time included in the numerator and denominator of your calculation.

If it is not possible for a reviewer to capture data for any of these three perspectives, then the reviewer should provide an explanation of why a perspective was not feasible. (For example, a set of materials is not divided into units/chapters, so a calculation from that perspective is not possible.)

If a perspective other than the three already given is a better representation for the materials, then the reviewer should clearly explain why the other perspective is better and include evidence and calculations to accompany the additional perspective.

If the materials include optional chapters/lessons/activities or provide choices for teachers as to what parts of the materials are used, please discuss calculations for 1c with EdReports' staff.

A minimum of 75% for grades K-2 and 65% for grades 3-8 should be viewed as a guideline for reviewers. Reviewers should discuss materials on the borderline (e.g., 60%-64% for grades 3-8) with EdReports staff.

Cluster Meeting

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

- Review the evidence collected from at least three perspectives. (Chapters/units, lessons, days, minutes, etc.)
- Which perspective is most representative of the materials? Why?
- Do the materials spend a minimum of 75% for grades K-2 or 65% for grades 3-8 of instructional time on major work of the grade, including supporting work connected to major work of the grade? Please explain.
- How similar are each reviewer's calculations? If there are differences in calculations between reviewers, those differences should be clearly evident in reviewers evidence collection documents.
- If the materials spiral concepts and skills within each grade level, please explain how you integrated the spiraling within your calculations?
- Evidence that reflects difficulty in calculating percentages for the materials should be discussed with EdReports staff to determine appropriate placement within the grade-level report.

Gateway 1: Focus & Coherence

Criterion 1.2	Each grade's materials are coherent and consistent with the Standards.
Indicator 1f	Supporting content enhances focus and coherence within the grade simultaneously by engaging students in the major work of the grade.

Scoring:		
2 points • All connections between supporting and major work enhance focus on major work through explicit use of the coherence map.	1 point • Any connections in the coherence map between supporting and major work are entirely absent from the grade-level materials.	0 points • Supporting work is treated separately and does not include connections to major work.

About this indicator:

What is the purpose of this Indicator?

This indicator, along with indicators 1e, 1g, and 1h, determines the shift of Coherence. In order to maintain Coherence, materials should connect mathematics within and across grade levels. Materials should indicate how learning progresses from previous learning and toward future learning. This indicator addresses one aspect of coherence - connections within the grade level.

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

Research or Standards connection:

- 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

Resources:

- Video: "The Balance Between Skills and Understanding" (The Hunt Institute)
- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- Focus Component 2: Major Clusters of the Grade

Indicator 1f Guiding Questions:

Is supporting work connected to the major work of the grade?

Is supporting work addressed independently?

Evidence Collection

For connections between supporting standards/clusters and major standards/clusters, please answer the following questions:

- What connections are made?
- Where are the connections made?
- How are those connections made?

When supporting standards/clusters are not connected to the major standards/clusters of the grade, is the separation mathematically reasonable?

Mathematically Reasonable:
For this indicator, mathematically reasonable refers to the content of the standards. Not all supporting standards are intended to connect with the major work of the grade; for example, in Kindergarten, K.G.5 may not connect to the major work of the grade, and this would be considered mathematically reasonable. Determining these connections or their absence should be guided by the coherence map, with intentionality required in linking supporting and major work to ensure alignment and coherence within the grade.

Are there connections between supporting and major standards/clusters of the grade that are entirely absent from the materials?

Note: A missed connection between supporting and major work standards/clusters is defined as a connection that is entirely absent from the materials. For example:

- In Grade K, if the materials do not connect classifying shapes into categories (K.MD.3) with counting the number of shapes in the categories (K.CC.5) anywhere in the materials, then this would be a missed connection.
- In Grade 7, if the materials do not connect scale drawings (7.G.1) with ratios and proportional relationships (7.RP.A) anywhere in the materials, then this would be a missed connection.

Cluster Meeting

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

- What connections between supporting and major standards/clusters of the grade were identified?
- Where were connections of supporting and major standards/clusters of the grade found?
- How were the connections made in the materials?

Gateway 1: Focus & Coherence

Criterion 1.2	Each grade's materials are coherent and consistent with the Standards.
Indicator 1g	Materials include problems and activities that serve to connect two or more clusters in a domain or two or more domains in a grade.

Scoring:		
2 points • There are connections from major work to major work throughout the grade-level materials, when appropriate.	1 point • Multiple appropriate connections from major work to major work are entirely absent from the grade-level materials.	0 points • There are no connections from major work to major work throughout the grade-level materials.

About this indicator:

What is the purpose of this Indicator?

This indicator, along with indicators 1e, 1f, and 1h, determines the shift of Coherence. In order to maintain Coherence, materials should connect mathematics within the grade level. Materials should indicate how learning progresses from previous learning and toward future learning. This indicator addresses connections within the grade level.

Indicator 1g supports coherence by identifying where materials connect across clusters and/or domains within a grade. ALL standards in the CCSSM should be considered throughout evidence collection for Gateway 1 indicators 1a, 1b, 1c, 1d, 1e, 1f, 1g, and 1h.

Research or Standards connection:

- 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

Resources:

- Video: "The Balance Between Skills and Understanding" (The Hunt Institute)
- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- Focus Component 2: Major Clusters of the Grade

Indicator 1g Guiding Question:

Are there connections between major domains and/or clusters?

Evidence Collection

Note: Evidence collection should address connections between clusters and/or domains and not individual standards.

For connections between major clusters/domains, please answer the following questions:

- What connections are made?
- Where are the connections made?
- Are the connections purposeful and supportive of student learning?

When major to major clusters/domains are not connected, is the separation mathematically reasonable?

Mathematically Reasonable:
For this indicator, mathematically reasonable refers to the content of the clusters/domains, do the connections enhance the mathematics/support student learning. Not all clusters/domains address content that should be connected to other clusters/domains.

Are there connections between major to major clusters/domains that are entirely absent from the materials as indicated by the Coherence Map?

Note: A missed connection is defined as a connection that is entirely absent from the materials. For example:

- In Grade 8, if the materials do not connect understanding and applying the Pythagorean Theorem (8.G.B) with working with radicals and integer exponents (8.EE.A) anywhere in the materials, then this would be a missed connection.

Note: Evidence should not include connections from supporting work to major work. Those connections are addressed in Indicator 1f.

Cluster Meeting

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

- What connections from major clusters/domains to major clusters/domains of the grade were identified, and where are those connections located?
- How were the connections made in the materials?
- If connections are entirely absent from the materials, explain/provide an example of what and where that connection might have occurred as specified in the Coherence Map.

Gateway 1: Focus & Coherence

Criterion 1.2	Each grade's materials are coherent and consistent with the Standards.
Indicator 1h	Content from future grades is identified and related to grade-level work, and materials relate grade-level concepts explicitly to prior knowledge from earlier grades.

Scoring:		
2 points • There are connections from future grades that are clearly identified and related to the current grade-level work. AND • Materials make explicit connections between grade-level concepts and prior knowledge from earlier grades.	1 point • Multiple connections from future grades are entirely absent and not related to grade-level work. OR • Materials entirely lack explicit connections between grade-level concepts and prior knowledge from earlier grades.	0 points • No connections are made between content from future grades and grade-level work. AND • No connections are made between grade-level concepts and prior knowledge from earlier grades.

About this indicator:

What is the purpose of this Indicator?

This indicator, along with indicators 1e, 1f, and 1g determines the shift of Coherence. This indicator examines coherence across grades through identifications of future content related to grade-level work and relations of grade-level concepts explicitly to prior knowledge from earlier grades.

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

Research or Standards connection:

- 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

Resources:

- Video: "The Balance Between Skills and Understanding" (The Hunt Institute)
- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents

Indicator 1h Guiding Question:

Is content from future grades identified and related to grade-level work?
Do the materials relate grade-level concepts explicitly to prior knowledge from earlier grades?

Evidence Collection

Identify evidence at the chapter/unit level and/or lesson level where grade-level content is related to future learning.

Identify evidence at the chapter/unit level and/or lesson level where prior learning is explicitly related to grade-level content.

Note: The explicit relationship of grade-level concepts to prior knowledge should include the content of the standards. If the materials include a standard code(s) with no explanation on the relationship to grade-level content, that is not sufficient to meet the expectations for this indicator.

Cluster Meeting

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

- Is future learning identified and related to grade-level content? Where? How?
- Is prior learning explicitly identified and related to grade-level learning? Where? How?

Gateway 2: Rigor & Mathematical Practices

Criterion 2.1

Rigor and Balance

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.

What is the purpose of this Criterion?

Criterion 1 considers the ways in which the materials for each grade reflect the balances in the Standards and help students to meet the rigorous expectations by providing students with opportunities to make their own connections to the mathematics to develop conceptual understanding, procedural skill and fluency, and application.

Research Connection

- Common Core State Standards Mathematics
- K-8 Publishers' Criteria for the CCSSM (Summer 2012)

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• 7-8 points	• 5-6 points	• <5 points

Gateway 2: Rigor & Mathematical Practices

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	Materials support the intentional development of students' conceptual understanding of key mathematical concepts, especially where called for in specific content standards or clusters.

Scoring:		
2 points • Materials develop conceptual understanding throughout the grade level. AND • Materials provide opportunities for students to independently demonstrate conceptual understanding throughout the grade level.	1 point • 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.	0 points • 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.

About this indicator:

What is the purpose of this Indicator?

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.

Research or Standards connection:

- 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

Resources:

- 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

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

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.

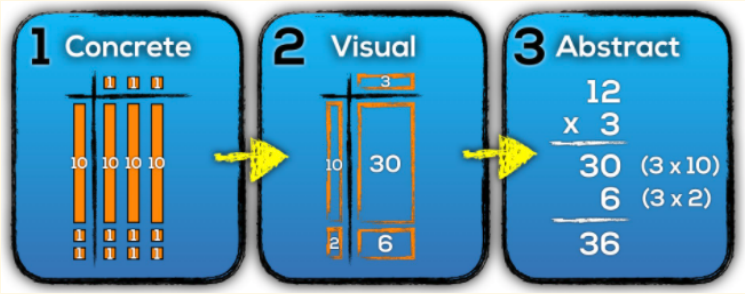
Example: In Grade 4, students use their understanding of place value and properties of operations to perform multi-digit arithmetic.

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

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?

Gateway 2: Rigor & Mathematical Practices

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	Materials provide intentional opportunities for students to develop procedural skills and fluencies, especially where called for in specific content standards or clusters.

Scoring:		
2 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.	1 point • 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.	0 points • 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.

About this indicator:

What is the purpose of this Indicator?

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.

Research or Standards connection:

- 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

Resources:

- 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

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

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

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?

Gateway 2: Rigor & Mathematical Practices

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	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.

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.

About this indicator:

What is the purpose of this Indicator?

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

Research or Standards connection:

- 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

Resources:

- 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

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

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

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?

Gateway 2: Rigor & Mathematical Practices

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 2d	The three aspects of rigor are not always treated together and are not always treated separately. There is a balance of the three aspects of rigor within the grade as reflected by the standards.

Scoring:		
2 points • All three aspects of rigor are present independently and multiple aspects of rigor are engaged simultaneously to develop students' mathematics understanding of a single topic/unit of study throughout each grade level.		0 points • Multiple aspects of rigor are not engaged simultaneously to develop students' mathematical understanding of a single topic/unit of study throughout each grade level.

About this indicator:

What is the purpose of this Indicator?

This indicator, along with 2a, 2b, and 2c, determines the shift of Rigor. In order to be considered rigorous, program materials must include a balance of conceptual understanding, procedural skills and fluencies, and application as reflected in the standards. This balance should be evident in all aspects of the grade level to support students as they develop mathematical understanding.

Research or Standards connection:

- 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

Resources:

- 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

Indicator 2d Guiding Question:

Do the instructional materials balance the three aspects of rigor?

Evidence Collection

Review lessons, chapter/unit assessments, and homework assignments.

Look for individual lessons/topics, as well as complete units, that include more than one aspect of rigor.

Collect evidence demonstrating where multiple aspects of rigor are engaged in simultaneously to develop students’ mathematical understanding of a single topic/unit of study throughout each grade level, for example:

- Consider whether materials use conceptual understanding to develop procedural skill and fluency.
- Consider if students use multiple representations (i.e. manipulatives, drawings, expressions, equations, tables, graphs, charts, number lines, etc.) and written/oral explanations to support their work in application problems.

Do the materials emphasize one aspect of rigor over the others in specific units? If so, do the materials work to maintain balance throughout the grade level?

Evidence must include explicit examples of where *more than one* aspect of rigor is present (can be two or three aspects, but does not have to include all three). Look for lessons that call out specific components of rigor, and lessons that focus on individual aspects of rigor.

Cluster Meeting

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

- Where do you find examples of multiple aspects of rigor engaged simultaneously to develop students’ mathematical understanding of a single topic/unit of study throughout each grade level?
- Do the materials emphasize one aspect of rigor over the others in specific units? If so, do the materials work to maintain balance throughout the grade level?

Gateway 2: Rigor & Mathematical Practices

Criterion 2.2

Standards for Mathematical Practice

Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice (MPs).

What is the purpose of this Criterion?

The purpose of this criterion is to ensure the Standards for Mathematical Practice are identified and connected to grade-level mathematical content, and the materials present opportunities for students to both learn and independently demonstrate each of the MPs.

Research Connection

- Common Core State Standards for Mathematics (CCSSM)

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• 7-8 points	• 4-6 points	• <4 points

Gateway 2: Rigor & Mathematical Practices

Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 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.

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

About this indicator:

What is the purpose of this Indicator?

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.

Research or Standards connection:

- 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

Resources:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP1: Make sense of problems and persevere in solving them
- Mathematical Practices Compilation

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

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.

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?

Gateway 2: Rigor & Mathematical Practices

Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 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.

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

About this indicator:

What is the purpose of this Indicator?

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.

Research or Standards connection:

- 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

Resources:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP2: Reason abstractly and quantitatively
- Mathematical Practices Compilation

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

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.

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?

Gateway 2: Rigor & Mathematical Practices

Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 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.

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

About this indicator:

What is the purpose of this Indicator?

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.

Research or Standards connection:

- 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

Resources:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP3: Construct viable arguments and critique the reasoning of others
- Mathematical Practices Compilation

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

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.

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 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?

Gateway 2: Rigor & Mathematical Practices

Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 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.

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

About this indicator:

What is the purpose of this Indicator?

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.

Research or Standards connection:

- 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

Resources:

- 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”.)

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

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.

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?

Gateway 2: Rigor & Mathematical Practices

Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 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.

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

About this indicator:

What is the purpose of this Indicator?

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.

Research or Standards connection:

- 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

Resources:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP5: Use appropriate tools strategically
- Mathematical Practices Compilation

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

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.

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?

Gateway 2: Rigor & Mathematical Practices

Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 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.

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

About this indicator:

What is the purpose of this Indicator?

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.

Research or Standards connection:

- 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

Resources:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP6: Attend to precision
- Mathematical Practices Compilation

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

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.

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 the MP 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 the MP?

Gateway 2: Rigor & Mathematical Practices

Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 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.

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

About this indicator:

What is the purpose of this Indicator?

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.

Research or Standards connection:

- 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

Resources:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP7: Look for and make use of structure
- Mathematical Practices Compilation

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

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.

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?

Gateway 2: Rigor & Mathematical Practices

Criterion 2.2	Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.
Indicator 2I	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.

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

About this indicator:

What is the purpose of this Indicator?

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 MP8 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.

Research or Standards connection:

- 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

Resources:

- SAP Coherence Map
- Institute for Mathematics Education Progressions Documents
- MP8: Look for and express regularity in repeated reasoning
- Mathematical Practices Compilation

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

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.

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?

Gateway 3: Teacher and Student Supports

Criterion 3.1

Teacher Supports

Materials include opportunities for teachers to effectively plan and utilize materials with integrity and to further develop their own understanding of the content.

What is the purpose of this Criterion?

This criterion examines how the materials support teachers in several key areas: delivering student and ancillary materials, with a particular focus on students' mathematical development, understanding the instructional approaches of the program and the research-based strategies employed, and improving their own knowledge of mathematics beyond the grade level. It also aids teachers in understanding the role of standards in the context of the overall series, and in planning effective instruction by providing appropriate materials and offering guidance on how caregivers can support student progress and achievement. Lastly, the materials provide support for interpreting and evaluating student performance throughout the assessment system, ensuring teachers have the tools they need to assess and respond to student learning needs effectively.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• 9-10 points	• 5-8 points	• <5 points

Gateway 3: Teacher and Student Supports

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 3a	Materials provide teacher guidance with useful annotations and suggestions for how to enact the student materials and ancillary materials, with specific attention to engaging students to guide their mathematical development.

Scoring:		
2 points • Materials provide comprehensive guidance that will assist teachers in presenting the student and ancillary materials. AND • Materials include sufficient and useful annotations and suggestions that are presented within the context of the specific learning objectives.	1 point • Materials provide comprehensive guidance that will assist teachers in presenting the student and ancillary materials. OR • Materials include sufficient and useful annotations and suggestions that are presented within the context of the specific learning objectives.	0 points • Materials do not provide comprehensive guidance that will assist them in presenting the student and ancillary materials. AND • Materials do not include sufficient and useful annotations and suggestions that are presented within the context of the specific learning objectives.

About this indicator:

What is the purpose of this Indicator?

This indicator examines whether materials offer comprehensive guidance for teachers, including annotations and practical suggestions, to effectively implement both the core student materials and any supplementary resources. This support aims to enhance teachers' ability to facilitate student mathematical development by providing strategies and insights on how to engage with the materials. Such guidance can include tips for differentiating instruction, addressing diverse learning needs, and integrating ancillary materials to reinforce learning. Ultimately, it helps teachers optimize the use of the provided resources to improve student mathematical outcomes.

Indicator 3a Guiding Question:

Do the materials provide teacher guidance with useful annotations and suggestions for how to enact the student and ancillary materials to support students' mathematical development?

Evidence Collection

In the instructional materials being reviewed:

- Check that the guidance for teachers is clear and detailed, providing explicit instructions on how to use both the student and ancillary materials effectively.
- Ensure that annotations and suggestions are directly linked to the specific learning objectives. They should provide context for how instructional strategies support students in achieving these objectives.
- Confirm that the guidance includes ways to integrate ancillary materials seamlessly within lessons to enhance learning. This might involve cross-referencing with core materials or suggested supplementary activities.
- Identify practical tips and real-world examples that help teachers implement the materials effectively. This could include classroom management suggestions, timing considerations, or engagement techniques.
- Review whether the materials offer ways to adapt lessons to different classroom settings or student populations.
- Look for references to additional resources or professional development opportunities that could further support teachers in using the materials effectively.

Cluster Meeting

Preparing for the cluster meeting:

- Is the guidance for teachers clear and detailed, providing explicit instructions on how to use both the student and ancillary materials effectively?
- Are the annotations and suggestions directly linked to the specific learning objectives, providing context for how instructional strategies support students in achieving these objectives?
- Does the guidance include ways to integrate ancillary materials seamlessly within lessons to enhance learning, such as cross-referencing with core materials or suggesting supplementary activities?
- Are there practical tips and real-world examples that help teachers implement the materials effectively, including classroom management suggestions, timing considerations, or engagement techniques?
- Do the materials offer ways to adapt lessons to different classroom settings or student populations?
- Are there references to additional resources or professional development opportunities that could further support teachers in using the materials effectively?

During the cluster meeting:

- Discuss whether the guidance for teachers is clear and detailed, providing explicit instructions on how to use both the student and ancillary materials effectively.
- Discuss whether the annotations and suggestions are directly linked to the specific learning objectives, providing context for how instructional strategies support students in achieving these objectives.
- Discuss whether the guidance includes ways to integrate ancillary materials seamlessly within lessons to enhance learning, such as cross-referencing with core materials or suggesting supplementary activities.

- Discuss whether there are practical tips and real-world examples that help teachers implement the materials effectively, including classroom management suggestions, timing considerations, or engagement techniques.
- Discuss whether the materials offer ways to adapt lessons to different classroom settings or student populations.
- Discuss whether there are references to additional resources or professional development opportunities that could further support teachers in using the materials effectively.

Gateway 3: Teacher and Student Supports

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 3b	Materials contain explanations and examples of grade-level/course-level concepts and/or standards and how the concepts and/or standards align to other grade/course levels so that teachers can improve their own knowledge of the subject.

Scoring:		
2 points • Materials contain explanations and examples of grade/course-level concepts and/or standards so that teachers can improve their own knowledge of the subject. AND • Materials contain explanations and examples of how the concepts and/or standards align to other grade/course levels so that teachers can improve their own knowledge of the subject.	1 point • Materials contain explanations and examples of grade/course-level concepts and/or standards so that teachers can improve their own knowledge of the subject. OR • Materials contain explanations and examples of how the concepts and/or standards align to other grade/course levels so that teachers can improve their own knowledge of the subject.	0 points • Materials do not contain explanations and examples of grade/course-level concepts and/or standards so that teachers can improve their own knowledge of the subject. AND • Materials do not contain explanations and examples of how the concepts and/or standards align to other grade/course levels so that teachers can improve their own knowledge of the subject.

About this indicator:

What is the purpose of this Indicator?

This indicator examines whether materials deepen teacher understanding of mathematics standards and concepts that are specific to each grade level. It also aims to show how these concepts and standards align with those taught in other grades or courses. By offering this information, the materials support teachers in deepening their understanding of the subject matter they are teaching, facilitating more effective instruction. This alignment helps educators see the progression of learning objectives and how current content builds on prior knowledge while preparing students for future learning. Ultimately, it aids teachers in delivering more cohesive and informed instruction, benefiting student learning outcomes.

Indicator 3b Guiding Question:

Do the materials contain adult-level explanations and examples of the more complex grade/course-level concepts and concepts beyond the current course so that teachers can improve their own knowledge of the subject?

Evidence Collection

In the instructional materials being reviewed:

- Ensure that explanations of grade-or course-level concepts and standards are thorough, clear, and accessible. This helps teachers deepen their understanding of the subject matter and facilitates better teaching.
- Look for relevant, concrete examples that illustrate the concepts and standards. Examples should be practical and applicable to classroom instruction, helping teachers visualize how to teach the material effectively.
- Check for explanations of how concepts and standards align with those taught in previous and subsequent grade or course levels. This can help teachers understand the progression and continuity of learning objectives.
- Look for clear descriptions of how skills and knowledge build upon each other from one grade or course to the next. This can guide teachers in ensuring they are preparing students for future learning challenges.
- Identify whether the materials include visual aids, such as charts, diagrams, or flowcharts, to help illustrate how concepts and standards are connected across grade levels.
- Consider whether materials highlight connections between the subject's concepts and standards and those of other subjects, fostering interdisciplinary learning.
- Look for insights or annotations aimed explicitly at teachers, which explain the rationale behind the concepts and standards and how they fit into the broader curriculum.
- Check if there are suggestions or links to professional development resources that can further enhance teachers' understanding of subject matter progression.

Cluster Meeting

Preparing for the cluster meeting:

- Are the explanations of grade-or course-level concepts and standards thorough, clear, and accessible to help teachers deepen their understanding of the subject matter and facilitate better teaching?
- Are there relevant, concrete examples that illustrate the concepts and standards, which are practical and applicable to classroom instruction to help teachers visualize how to teach the material effectively?
- Do the materials include explanations of how concepts and standards align with those taught in previous and subsequent grade or course levels to help teachers understand the progression and continuity of learning objectives?
- Are there clear descriptions of how skills and knowledge build upon each other from one grade or course to the next, guiding teachers in preparing students for future learning challenges?
- Do the materials include visual aids, such as charts, diagrams, or flowcharts, to help illustrate how concepts and standards are connected across grade levels?
- Do the materials highlight connections between the subject's concepts and standards and those of other subjects, fostering interdisciplinary learning?
- Are there insights or annotations aimed explicitly at teachers that explain the rationale behind the concepts and standards and how they fit into the broader curriculum?
- Are there suggestions or links to professional development resources that can further enhance teachers' understanding of subject matter progression?

During the cluster meeting:

- Discuss whether the explanations of grade-or course-level concepts and standards are thorough, clear, and accessible to help teachers deepen their understanding of the subject matter and facilitate better teaching.
- Discuss whether there are relevant, concrete examples that illustrate the concepts and standards, which are practical and applicable to classroom instruction to help teachers visualize how to teach the material effectively.
- Discuss whether the materials include explanations of how concepts and standards align with those taught in previous and subsequent grade or course levels to help teachers understand the progression and continuity of learning objectives.
- Discuss whether there are clear descriptions of how skills and knowledge build upon each other from one grade or course to the next, guiding teachers in preparing students for future learning challenges.
- Discuss whether the materials include visual aids, such as charts, diagrams, or flowcharts, to help illustrate how concepts and standards are connected across grade levels.
- Discuss whether the materials highlight connections between the subject's concepts and standards and those of other subjects, fostering interdisciplinary learning.
- Discuss whether there are insights or annotations aimed explicitly at teachers that explain the rationale behind the concepts and standards and how they fit into the broader curriculum.
- Discuss whether there are suggestions or links to professional development resources that can further enhance teachers' understanding of subject matter progression.

Gateway 3: Teacher and Student Supports

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 3c	Materials include a year-long scope and sequence with standards correlation information.

Scoring:	
1 point ● Materials include a year-long scope and sequence with standard correlation information.	0 points ● Materials do not include a year-long scope and sequence with standard correlation information.

About this indicator:

What is the purpose of this Indicator?

This indicator examines whether materials contain a standards correlation information document, which maps or aligns the content and activities within the materials to specific Mathematics Common Core State Standards. This document serves as a resource for teachers to quickly identify how and where the material addresses particular standards, enabling better planning and instruction. It helps ensure that teaching is aligned with required educational benchmarks and offers transparency on how the materials support meeting those standards.

Research or Standards connection:

- Common Core State Standards for Mathematics (CCSSM)

Indicator 3c Guiding Question:

Do the materials include a year-long scope and sequence with standards correlation information?

Evidence Collection

In the instructional materials being reviewed:

- Consider how teacher materials provide documentation that addresses how individual units, lessons, or activities throughout the series are aligned to mathematical concepts and practices (Common Core Mathematics Standards), as applicable.
- Ensure that the correlation document covers all relevant mathematics standards for the entire grade level or series, including content and practice standards.
- Check if there is a clear and direct alignment between the material's content and the specific mathematics standards. The correlation should specify which parts of the materials address each standard.
- Confirm that the document provides specific references, such as page numbers, lesson numbers, or activities that correlate to each standard.
- Ensure the document cross-references where multiple standards might be addressed simultaneously in broader activities or projects, emphasizing an integrated approach.

Note:
- if standards correlation is inconsistent between levels (i.e., from the overview to a module or a lesson).
- if standards correlation is inaccurate.

Cluster Meeting

Preparing for the cluster meeting:
- How do teacher materials provide documentation that addresses how individual units, lessons, or activities throughout the series are aligned to mathematical concepts and practices (Common Core Mathematics Standards), as applicable?
- Does the correlation document cover all relevant mathematics standards for the entire grade level or series, including both content and practice standards?
- Is there a clear and direct alignment between the material's content and the specific mathematics standards, specifying which parts of the materials address each standard?
- Does the document provide specific references, such as page numbers, lesson numbers, or activities that correlate to each standard?
- Does the document cross-reference where multiple standards might be addressed simultaneously in broader activities or projects, emphasizing an integrated approach?

During the cluster meeting:
- Discuss how teacher materials provide documentation that addresses how individual units, lessons, or activities throughout the series are aligned to mathematical concepts and practices (Common Core Mathematics Standards), as applicable.
- Discuss whether the correlation document covers all relevant mathematics standards for the entire grade level or series, including both content and practice standards.
- Discuss whether there is a clear and direct alignment between the material's content and the specific mathematics standards, specifying which parts of the materials address each standard.
- Discuss whether the document provides specific references, such as page numbers, lesson numbers, or activities that correlate to each standard.
- Discuss whether the document cross-references where multiple standards might be addressed simultaneously in broader activities or projects, emphasizing an integrated approach.

Gateway 3: Teacher and Student Supports

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 3d	Materials provide strategies for informing all stakeholders, including students, parents, or caregivers about the program and suggestions for how they can help support student progress and achievement.

Scoring: Narrative Evidence Only

Note: No score is given for this indicator. Only qualitative evidence is provided.
Materials contain strategies for informing students, parents, or caregivers about the mathematical program.
Materials contain suggestions for how parents or caregivers can help support student progress and achievement.
Materials for parents (like letters home) have been translated into languages other than English.

About this indicator:

What is the purpose of this Indicator?

This indicator examines if the materials include strategies for effectively communicating with all stakeholders, such as students, parents, and caregivers, about the program. This involves offering clear information on the goals, structure, and expectations of the program, as well as practical suggestions on how these stakeholders can actively support student learning and achievement at home and in other settings. By engaging stakeholders, the materials foster a collaborative approach to education, enhancing student support systems and increasing the likelihood of student success through consistent reinforcement and involvement beyond the classroom.

Indicator 3d Guiding Question:

Do the materials provide strategies for informing all stakeholders, including students, parents, or caregivers about the program and suggestions for how they can help support student progress and achievement?

Evidence Collection

In the instructional materials being reviewed:

- Ensure that information about the mathematical program is presented clearly and in a manner that is easy for all stakeholders to understand. This includes avoiding jargon and using straightforward language.
- Look for comprehensive explanations of the mathematical program, including its objectives, the skills students will develop, and the types of activities they will engage in. This helps parents and caregivers understand the educational goals and expectations.
- Check if the materials offer multiple ways to communicate with parents and caregivers, such as newsletters, emails, meetings, or digital platforms. Diverse methods can reach different stakeholders more effectively.

- Ensure the materials provide actionable suggestions for how parents and caregivers can support student learning at home, such as practicing math problems together, exploring real-world math applications, or playing math-related games.
- Confirm that materials for parents have been translated into languages commonly spoken in the community to ensure inclusivity and accessibility for non-English speaking families.
- Look for strategies that include regular updates on student progress and opportunities for parents and caregivers to provide feedback or ask questions, fostering ongoing communication and engagement.
- Check if the materials offer tailored support or resources for parents and caregivers based on various student needs, recognizing that each child may require different levels of support.
- Assess whether the materials direct parents and caregivers to additional resources, support, or community programs that can further assist student learning and development.

Cluster Meeting

Preparing for the cluster meeting:

- Is information about the mathematics program presented clearly and in a manner that is easy for all stakeholders to understand, avoiding jargon and using straightforward language?
- Are there comprehensive explanations of the mathematics program, including its objectives, the skills students will develop, and the types of activities they will engage in, to help parents and caregivers understand the educational goals and expectations?
- Do the materials offer multiple ways to communicate with parents and caregivers, such as newsletters, emails, meetings, or digital platforms, to reach different stakeholders more effectively?
- Do the materials provide actionable suggestions for how parents and caregivers can support student learning at home, such as practicing math problems together, exploring real-world math applications, or engaging in math-related games?
- Have the materials for parents been translated into languages commonly spoken in the community to ensure inclusivity and accessibility for non-English speaking families?
- Do the strategies include regular updates on student progress and opportunities for parents and caregivers to provide feedback or ask questions, fostering ongoing communication and engagement?
- Do the materials offer tailored support or resources for parents and caregivers based on various student needs, recognizing that each child may require different levels of support?
- Do the materials direct parents and caregivers to additional resources, support, or community programs that can further assist student learning and development?

During the cluster meeting:

- Discuss whether information about the mathematics program is presented clearly and in a manner that is easy for all stakeholders to understand, avoiding jargon and using straightforward language.
- Discuss whether there are comprehensive explanations of the mathematics program, including its objectives, the skills students will develop, and the types of activities they will engage in, to help parents and caregivers understand the educational goals and expectations.
- Discuss whether the materials offer multiple ways to communicate with parents and caregivers, such as newsletters, emails, meetings, or digital platforms, to reach different stakeholders more effectively.
- Discuss whether the materials provide actionable suggestions for how parents and caregivers can support student learning at home, such as practicing math problems together, exploring real-world math applications, or engaging in math-related games.
- Discuss whether the materials for parents have been translated into languages commonly spoken in the community to ensure inclusivity and accessibility for non-English speaking families.
- Discuss whether the strategies include regular updates on student progress and opportunities for parents and caregivers to provide feedback or ask questions, fostering ongoing communication and

engagement.

- Discuss whether the materials offer tailored support or resources for parents and caregivers based on various student needs, recognizing that each child may require different levels of support.
- Discuss whether the materials direct parents and caregivers to additional resources, support, or community programs that can further assist student learning and development.

Gateway 3: Teacher and Student Supports

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	Materials explain the program's instructional approaches, identify research-based strategies, and explain the role of the standards.

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

About this indicator:

What is the purpose of this Indicator?

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.

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

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.

Cluster Meeting

Preparing for the 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 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.

Gateway 3: Teacher and Student Supports

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 3f	Materials provide a comprehensive list of supplies needed to support instructional activities.

Scoring:	
1 point • Materials include a comprehensive list of supplies needed to support the instructional activities.	0 points • Materials do not include a comprehensive list of supplies needed to support instructional activities.

About this indicator:

What is the purpose of this Indicator?

This indicator examines if the materials include a thorough and detailed list of all supplies and resources required to support the instructional activities in a program. This comprehensive list allows teachers to effectively plan and prepare for lessons by ensuring they have all necessary materials available for successful implementation. By clearly identifying what is needed, educators can minimize disruptions, manage their time efficiently, and create a conducive learning environment. Ultimately, this clarity supports smoother lesson delivery and enhances the overall effectiveness of the instructional activities.

Indicator 3f Guiding Question:

Do the materials provide a comprehensive list of supplies needed to support instructional activities?

Evidence Collection

In the instructional materials being reviewed:

- Ensure that the list covers all materials and supplies needed for each activity within the program. The list should leave no essential item unmentioned to prevent any disruptions during the actual implementation of lessons.
- Look for an organized and easy-to-navigate list, possibly categorized by lesson, unit, or type of activity, so teachers can quickly find and gather materials.
- Identify which materials are consumable (need to be replaced after use) and which are reusable (can be used across multiple lessons or years), supporting teachers in planning for future lessons.
- Ensure that both digital resources (software, online tools) and physical supplies are included, with clear indications of what is required for digital learning environments, if applicable.
- Look for suggested alternatives or substitutions for the materials listed to accommodate different teaching environments or available resources, adding flexibility for teachers.
- Verify that each item in the supply list directly aligns with and supports specific instructional objectives and activities, ensuring relevance and purpose.

Cluster Meeting

Preparing for the cluster meeting:

- Does the list cover all materials and supplies needed for each activity within the program, leaving no essential item unmentioned to prevent any disruptions during the actual implementation of lessons?
- Is the list organized and easy to navigate, possibly categorized by lesson, unit, or type of activity, so that teachers can quickly find and gather materials?
- Can you identify which materials are consumable (need to be replaced after use) and which are reusable (can be used across multiple lessons or years), to support teachers in planning for future lessons?
- Are both digital resources (software, online tools) and physical supplies included, with clear indications of what is required for digital learning environments, if applicable?
- Are there suggested alternatives or substitutions for the materials listed to accommodate different teaching environments or available resources, adding flexibility for teachers?
- Does each item in the supply list directly align with and support specific instructional objectives and activities, ensuring relevance and purpose?

During the cluster meeting:

- Discuss whether the list covers all materials and supplies needed for each activity within the program, leaving no essential item unmentioned to prevent any disruptions during the actual implementation of lessons.
- Discuss whether the list is organized and easy to navigate, possibly categorized by lesson, unit, or type of activity, so that teachers can quickly find and gather materials.
- Discuss whether you can identify which materials are consumable (need to be replaced after use) and which are reusable (can be used across multiple lessons or years), to support teachers in planning for future lessons.
- Discuss whether both digital resources (software, online tools) and physical supplies are included, with clear indications of what is required for digital learning environments, if applicable.
- Discuss whether there are suggested alternatives or substitutions for the materials listed to accommodate different teaching environments or available resources, adding flexibility for teachers.
- Discuss whether each item in the supply list directly aligns with and support specific instructional objectives and activities, ensuring relevance and purpose.

Gateway 3: Teacher and Student Supports

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 3g	The assessment system provides consistent opportunities to determine student learning throughout the school year. The assessment system provides sufficient teacher guidance for evaluating student performance and determining instructional next steps.

Scoring:

2 points	1 point	0 points
• The assessment system provides opportunities to determine student learning throughout the school year. AND • The assessment system provides sufficient teacher guidance for evaluating student performance. AND • The assessment system provides sufficient teacher guidance for interpreting student performance and determining next instructional steps.	• The assessment system provides opportunities to determine student learning throughout the school year, but not consistently. OR • The assessment system provides sufficient teacher guidance for evaluating student performance, but not consistently. OR • The assessment system provides sufficient teacher guidance for interpreting student performance and determining next instructional steps, but not consistently.	• The assessment system does not provide opportunities to determine student learning throughout the school year. AND • The assessment system does not provide sufficient teacher guidance for evaluating student performance. AND • The assessment system does not provide sufficient teacher guidance for interpreting student performance and determining next instructional steps.

About this indicator:

What is the purpose of this Indicator?

This indicator examines whether the assessment system within materials offers regular and consistent opportunities to evaluate student learning progress throughout the school year. It emphasizes the importance of a well-structured assessment system that not only tracks student performance consistently over time but also provides teachers with clear guidance on how to interpret assessment results. This includes offering insights on evaluating student understanding and making informed decisions about instructional next steps. By doing so, teachers identify areas where students may need additional support or enrichment, allowing for timely interventions and personalized learning pathways that enhance student growth and achievement.

Indicator 3g Guiding Question:

Does the assessment system provide consistent opportunities to determine student learning throughout the school year, sufficient teacher guidance for evaluating student performance, and sufficient teacher guidance for determining instructional next steps?

Evidence Collection

Note: this indicator looks at the assessment system as a whole and how all of the types of assessments in a program work together to show student progress toward mastery and provide guidance to teachers about how to adjust instruction. Information specific to formative and summative assessments is looked at in Gateway 1).

In the instructional materials being reviewed:

- Ensure the assessment system provides regular and structured opportunities throughout the school year to measure student learning. This should include formative assessments that offer ongoing insights and summative assessments that evaluate cumulative learning.
- Look for a variety of assessment types (e.g., quizzes, performance tasks, summative assessments, standardized tests) to capture different aspects of student learning and demonstrate a comprehensive view of progress.
- Ensure that there is comprehensive guidance for teachers on how to administer the system of assessments, including instructions, rubrics, and criteria for consistent and fair evaluation of student performance.
- Confirm that the materials include clear guidance on how to interpret the results of student assessments throughout all assessments.
- Across the assessment system as a whole, look for specific recommendations or strategies for teachers on how to use assessment data to inform instructional decisions, adjust teaching plans, and provide targeted interventions or enrichment activities based on student needs.
- Assess whether the system includes mechanisms for providing timely and constructive feedback to students, helping them understand their progress and areas for improvement.
- Determine if the assessment system allows for flexibility to accommodate diverse learning environments, student populations, and instructional methods.

Cluster Meeting

Preparing for the cluster meeting:

- Does the assessment system provide regular and structured opportunities throughout the school year to measure student learning, including both formative assessments that offer ongoing insights and summative assessments that evaluate cumulative learning?
- Is there a variety of assessment types (e.g., quizzes, performance tasks, summative assessments, standardized tests) to capture different aspects of student learning and demonstrate a comprehensive view of progress?
- Is there comprehensive guidance for teachers on how to administer the assessment system, including instructions, rubrics, and criteria for consistent and fair evaluation of student performance?
- Do the materials include clear guidance on how to interpret the results of student assessments across all assessments?
- Are there specific recommendations or strategies for teachers on how to use assessment data to inform instructional decisions, adjust teaching plans, and provide targeted interventions or enrichment activities based on student needs?

- Does the system include mechanisms for providing timely and constructive feedback to students, helping them understand their progress and areas for improvement?
- Does the assessment system allow for flexibility to accommodate diverse learning environments, student populations, and instructional methods?

During the cluster meeting:

- Discuss whether the assessment system provides regular and structured opportunities throughout the school year to measure student learning, including both formative assessments that offer ongoing insights and summative assessments that evaluate cumulative learning.
- Discuss whether there are a variety of assessment types (e.g., quizzes, performance tasks, summative assessments, standardized tests) to capture different aspects of student learning and demonstrate a comprehensive view of progress?
- Discuss whether there is comprehensive guidance for teachers on how to administer the assessment system, including instructions, rubrics, and criteria for consistent and fair evaluation of student performance.
- Discuss whether the materials include clear guidance on how to interpret the results of student assessments across all assessments.
- Discuss whether there are specific recommendations or strategies for teachers on how to use assessment data to inform instructional decisions, adjust teaching plans, and provide targeted interventions or enrichment activities based on student needs.
- Discuss whether the system includes mechanisms for providing timely and constructive feedback to students, helping them understand their progress and areas for improvement.
- Discuss whether the assessment system allows for flexibility to accommodate diverse learning environments, student populations, and instructional methods.

Gateway 3: Teacher and Student Supports

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 3h	*This is not an assessed indicator in Mathematics.

Gateway 3: Teacher and Student Supports

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 3i	*This is not an assessed indicator in Mathematics.

Gateway 3: Teacher and Student Supports

Criterion 3.2

Student Supports

Materials are designed for each student's regular and active participation in grade-level/grade-band/series content.

What is the purpose of this Criterion?

This criterion examines how materials provide student supports throughout the program. It considers how the materials are designed to provide appropriate support and accommodations for students with diverse learning needs, ensuring their regular and active participation in learning mathematics. It also examines whether materials should offer extensions for advanced students, allowing them to engage with mathematical concepts at a greater depth. Additionally, this criterion looks at whether materials provide opportunities for teachers to employ a variety of grouping strategies and include varied opportunities for students to share their thinking. Furthermore, this criterion considers whether materials ensure a range of representation of people, leveraging the diverse cultural and social backgrounds of students to enrich the educational experience and foster an inclusive learning environment.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• 6 points	• 4-5 points	• <4 points

Gateway 3: Teacher and Student Supports

Criterion 3.2	Materials are designed for each student's regular and active participation in grade-level/grade-band/series content.
Indicator 3j	Materials provide strategies and support for students in special populations to work with grade-level content and meet or exceed grade-level standards, which support their regular and active participation in learning.

Scoring:		
2 points • Materials provide strategies, supports, and resources for students in special populations to ensure their regular and active participation in grade-level mathematical tasks and problem-solving activities.	1 point • Materials provide strategies, supports, and resources for students in special populations to support their regular and active participation in grade-level mathematical tasks and problem-solving activities. but not consistently.	0 points • Materials do not provide strategies, supports, and resources for students in special populations to support their regular and active participation in grade-level mathematical tasks and problem-solving activities.

About this indicator:

What is the purpose of this Indicator?

This indicator considers whether materials include strategies and support designed to help students in special populations, such as students with exceptional needs and those requiring additional learning support, to access and engage with grade-level content. This indicator aims to promote equity by ensuring that materials enable all students to meet or exceed grade-level standards. By providing targeted support and resources, the materials facilitate regular and active participation in learning for all students, helping them to overcome barriers and achieve success alongside their peers. This approach fosters an inclusive learning environment that recognizes and accommodates diverse learning needs and styles.

Resources:

- Supporting Special Populations, Office of Elementary and Secondary Education

Indicator 3j Guiding Question:

Do materials provide strategies, supports, and resources for students in special populations to support their active participation in grade-level mathematics work?

Evidence Collection

- Ensure the materials include specific strategies for differentiating instruction to meet the diverse needs of students in special populations. These strategies should be adaptable to individual learning styles and needs.
- Check if the materials provide scaffolding strategies, such as breaking down mathematical tasks into manageable steps, using visual models or manipulatives, or offering guiding questions and prompts to support students in building their understanding and skills.
- Check if the materials incorporate strategies to support the social-emotional needs of students in special populations, fostering a positive learning environment and encouraging participation.
- Assess whether there are opportunities for cooperative learning where students can work in diverse groups to enhance peer support and learning through interaction.
- Confirm that the materials include comprehensive guidance for teachers on how to implement these strategies effectively, including professional development resources if applicable.
- Ensure there are tools and resources for monitoring the progress of students in special populations, allowing teachers to assess effectiveness and adjust strategies as needed.

Cluster Meeting

Preparing for the cluster meeting:

- Do the materials include specific strategies for differentiating instruction to meet the diverse needs of students in special populations, adaptable to individual learning styles and needs?
- Do the materials provide scaffolding strategies, such as breaking down mathematical tasks into manageable steps, using visual models or manipulatives, or offering guiding questions and prompts to support students in building their understanding and skills?
- Do the materials incorporate strategies to support the social-emotional needs of students in special populations, fostering a positive learning environment and encouraging participation?
- Are there opportunities for cooperative learning where students can work in diverse groups to enhance peer support and learning through interaction?
- Do the materials include comprehensive guidance for teachers on how to implement these strategies effectively, including professional development resources if applicable?
- Are there tools and resources for monitoring the progress of students in special populations, allowing teachers to assess effectiveness and adjust strategies as needed?

During the cluster meeting:

- Discuss whether the materials include specific strategies for differentiating instruction to meet the diverse needs of students in special populations, adaptable to individual learning styles and needs.
- Discuss whether the materials provide scaffolding strategies, such as breaking down mathematical tasks into manageable steps, using visual models or manipulatives, or offering guiding questions and prompts to support students in building their understanding and skills.
- Discuss whether the materials incorporate strategies to support the social-emotional needs of students in special populations, fostering a positive learning environment and encouraging participation.
- Discuss whether there are opportunities for cooperative learning where students can work in diverse groups to enhance peer support and learning through interaction.
- Discuss whether the materials include comprehensive guidance for teachers on how to implement these

strategies effectively, including professional development resources if applicable.
- Discuss whether there are tools and resources for monitoring the progress of students in special populations, allowing teachers to assess effectiveness and adjust strategies as needed.

Gateway 3: Teacher and Student Supports

Criterion 3.2	Materials are designed for each student's regular and active participation in grade-level/grade-band/series content.
Indicator 3k	Materials regularly provide extensions and/or opportunities for advanced students to engage with grade-level/course-level mathematics at greater depth.

Scoring:		
2 points • Materials regularly provide multiple extensions and/or opportunities for advanced students to engage with grade-level/course-level mathematics at greater depth. AND • There are no instances of advanced students doing more assignments than their classmates.	1 point • Materials regularly provide multiple extensions and/or opportunities for advanced students to engage with grade-level/course-level mathematics at greater depth. OR • There are some instances of advanced students doing more assignments than their classmates.	0 points • Materials provide few, if any, opportunities for advanced students to engage with grade-level/course-level mathematics at greater depth. AND • There are instances of advanced students doing more assignments than their classmates.

About this indicator:

What is the purpose of this Indicator?

This indicator considers whether materials include strategies and support designed to help students in special populations, such as students with exceptional needs and those requiring additional learning support, to access and engage with grade-level content. This indicator aims to promote equity by ensuring that materials enable all students to meet or exceed grade-level standards. By providing targeted support and resources, the materials facilitate regular and active participation in learning for all students, helping them to overcome barriers and achieve success alongside their peers. This approach fosters an inclusive learning environment that recognizes and accommodates diverse learning needs and styles.

Resources:

Supporting Special Populations, Office of Elementary and Secondary Education

Indicator 3k Guiding Question:

Do the materials regularly provide extensions for students who are above grade level to engage with mathematical content and concepts at greater depth?

Evidence Collection

In the instructional materials being reviewed:

- Ensure there are activities that allow advanced students to explore grade-level content at a deeper level, encouraging higher-order thinking skills such as analysis, synthesis, and evaluation.
- Look for tasks that are more complex rather than just more of the same work.
- Check for enrichment activities that extend mathematical content in meaningful ways without simply adding to the workload. These could include complex problem-solving tasks, thematic projects, or interdisciplinary connections that integrate math with other subjects.
- Ensure materials offer differentiated pathways that cater to the needs of advanced learners, providing challenges that match their capability without increasing the volume of assignments.
- Look for opportunities within the materials that focus on skill enrichment, such as critical thinking, problem-solving, or creative expression that align with students' strengths and interests.
- Verify that advanced learners are given choices in how they explore topics or demonstrate understanding, allowing for greater autonomy and personalized learning experiences.
- Ensure that the advanced materials remain connected to the core curriculum, maintaining relevance and ensuring coherence with overall learning objectives.
- Check for ways the materials provide opportunities for advanced learners to reflect on their learning processes and outcomes, enabling them to set personal learning goals and seek further opportunities for growth.
- Ensure that there are no instances of advanced students doing more assignments than their classmates.

Cluster Meeting

Preparing for the cluster meeting:

- Are there activities that allow advanced students to explore grade-level content at a deeper level, encouraging higher-order thinking skills such as analysis, synthesis, and evaluation?
- Do the tasks offer complexity rather than just more of the same work?
- Are there enrichment activities that extend the mathematical content in meaningful ways without simply adding to the workload, such as complex problem-solving tasks, thematic projects, or interdisciplinary connections that integrate math with other subjects?
- Do the materials offer differentiated pathways that cater to the needs of advanced learners, providing challenges that match their capability without increasing the volume of assignments?
- Are there opportunities within the materials that focus on skill enrichment, such as critical thinking, problem-solving, or creative expression that align with students' strengths and interests?
- Are advanced learners given choices in how they explore topics or demonstrate understanding, allowing for greater autonomy and personalized learning experiences?
- Do the advanced materials remain connected to the core curriculum, maintaining relevance and ensuring coherence with overall learning objectives?
- Do the materials provide opportunities for advanced learners to reflect on their learning processes and outcomes, enabling them to set personal learning goals and seek further opportunities for growth?
- Are there any instances of advanced students doing more assignments than their classmates?

During the cluster meeting:

- Discuss whether there are activities that allow advanced students to explore grade-level content at a deeper level, encouraging higher-order thinking skills such as analysis, synthesis, and evaluation.
- Discuss whether the mathematical tasks offer complexity rather than just more of the same practice, potentially involving open-ended projects, independent research, or inquiry-based learning opportunities that challenge students to think critically, explore concepts deeply, and apply their knowledge creatively.
- Discuss whether there are enrichment activities that extend the content in meaningful ways without simply adding to the workload, such as complex problem-solving tasks, thematic projects, or interdisciplinary connections that integrate math with other subjects.
- Discuss whether the materials offer differentiated pathways that cater to the needs of advanced learners, providing challenges that match their capability without increasing the volume of assignments.
- Discuss whether there are opportunities within the materials that focus on skill enrichment, such as critical thinking, problem-solving, or creative expression that align with students' strengths and interests.
- Discuss whether advanced learners are given choices in how they explore topics or demonstrate understanding, allowing for greater autonomy and personalized learning experiences.
- Discuss whether the advanced materials remain connected to the core curriculum, maintaining relevance and ensuring coherence with overall learning objectives.
- Discuss whether the materials provide opportunities for advanced learners to reflect on their learning processes and outcomes, enabling them to set personal learning goals and seek further opportunities for growth.
- Discuss whether there are any instances of advanced students doing more assignments than their classmates.

Gateway 3: Teacher and Student Supports

Criterion 3.2	Materials are designed for each student's regular and active participation in grade-level/grade-band/series content.
Indicator 3l	Materials provide varied approaches to learning tasks over time and variety in how students are expected to demonstrate their learning with opportunities for students to monitor their learning.

Scoring: Narrative Evidence Only

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

- Materials provide varied tasks for students to show their thinking and make meaning.
- Students have opportunities to share their thinking, to demonstrate changes in their thinking over time, and to apply their understanding in new contexts.
- Materials leverage the use of a variety of formats over time to deepen student understanding and ability to explain and apply mathematical ideas.
- Materials provide for ongoing review, practice, self-reflection, and feedback.
- Materials provide multiple strategies, such as oral and/or written feedback, peer or teacher feedback, and self-reflection.
- Materials provide a clear path for students to monitor and move their own learning.

About this indicator:

What is the purpose of this Indicator?

This indicator examines whether materials offer diverse and dynamic approaches to learning tasks, thereby catering to different learning styles and preferences over time. By providing variety in how students are expected to demonstrate their mathematical understanding, the materials promote engagement and allow students to showcase their learning in multiple ways, such as through problem-solving tasks, presentations of mathematical reasoning, written explanations, or group discussions. This approach recognizes the individual strengths and interests of students, encouraging more personalized and effective learning experiences. Additionally, by including opportunities for students to monitor their own learning, the materials foster self-assessment skills and help students become more aware of their progress, strengths, and areas needing improvement. This self-monitoring aspect supports the development of independent learners who are equipped to take responsibility for their educational journeys.

Indicator 3l Guiding Question:

Do the materials provide varied approaches to learning tasks over time and variety in how students are expected to demonstrate their learning with opportunities for students to monitor their learning?

Evidence Collection

In the instructional materials being reviewed:

- Ensure that the materials include a wide range of tasks that allow students to express their mathematical thinking and make meaning. These tasks could include problem-solving projects, presentations of

mathematical reasoning, written explanations of solutions, group discussions of strategies, and creative representations of mathematical concepts.
- Look for opportunities where students can share their initial thinking, demonstrate how their thinking evolves over time, and apply their understanding in new and varied contexts.
- Ensure there are built-in opportunities for ongoing review and practice. Materials should support repeated engagement with concepts to reinforce learning and solidify skills over time.
- Confirm that materials provide strategies for self-reflection and feedback. This should include oral and written feedback from teachers and peers, as well as opportunities for students to assess their own work and progress.
- Look for clear structures or tools within the materials that help students monitor their own learning. This could include progress tracking systems, self-assessment checklists, or goal-setting frameworks.
- Review how the materials guide students in reflecting on their learning process, offering scaffolding that supports students in moving from one level of understanding to the next.
- Verify that there are tasks requiring students to apply their learning to new situations or problems, fostering transfer of knowledge and skills beyond the original context.

Cluster Meeting

Preparing for the cluster meeting:

- Do the materials include a wide range of tasks that allow students to express their thinking and make meaning, such as problem-solving projects, presentations of mathematical reasoning, written explanations of solutions, group discussions of strategies, and creative representations of mathematical concepts?
- Are there opportunities for students to share their initial thinking, demonstrate how their thinking evolves over time, and apply their understanding in new and varied contexts?
- Are there built-in opportunities for ongoing review and practice, supporting repeated engagement with concepts to reinforce learning and solidify skills over time?
- Do the materials provide strategies for self-reflection and feedback, including oral and written feedback from teachers and peers, as well as opportunities for students to assess their own work and progress?
- Are there clear structures or tools within the materials to help students monitor their own learning, such as progress tracking systems, self-assessment checklists, or goal-setting frameworks?
- How do the materials guide students in reflecting on their learning process, offering scaffolding that supports students in moving from one level of understanding to the next?
- Are there tasks that require students to apply their learning to new situations or problems, fostering the transfer of knowledge and skills beyond the original context?

During the cluster meeting:

- Discuss whether the materials include a wide range of tasks that allow students to express their thinking and make meaning, such as problem-solving projects, presentations of mathematical reasoning, written explanations of solutions, group discussions of strategies, and creative representations of mathematical concepts.
- Discuss whether there are opportunities for students to share their initial thinking, demonstrate how their thinking evolves over time, and apply their understanding in new and varied contexts.
- Discuss whether there are built-in opportunities for ongoing review and practice, supporting repeated engagement with concepts to reinforce learning and solidify skills over time.
- Discuss whether the materials provide strategies for self-reflection and feedback, including oral and written feedback from teachers and peers, as well as opportunities for students to assess their own work and progress.
- Discuss whether there are clear structures or tools within the materials to help students monitor their own learning, such as progress tracking systems, self-assessment checklists, or goal-setting frameworks.

- Discuss how the materials guide students in reflecting on their learning process, offering scaffolding that supports students in moving from one level of understanding to the next.
- Discuss whether there are tasks that require students to apply their learning to new situations or problems, fostering the transfer of knowledge and skills beyond the original context.

Gateway 3: Teacher and Student Supports

Criterion 3.2	Materials are designed for each student's regular and active participation in grade-level/grade-band/series content.
Indicator 3m	Materials provide opportunities for teachers to use a variety of grouping strategies.

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.

About this indicator:

What is the purpose of this Indicator?

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.

Indicator 3m Guiding Question:

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

Evidence Collection

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)

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 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.

Gateway 3: Teacher and Student Supports

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

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.

About this indicator:

What is the purpose of this Indicator?

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.

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

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.

- Look for 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.
- Look for whether the materials include tools or templates for documenting accommodations used during assessments, supporting accountability and planning for future assessments.
- Assess whether 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.

Cluster Meeting

Preparing for the 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 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 is 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.

Gateway 3: Teacher and Student Supports

Criterion 3.2	Materials are designed for each student's regular and active participation in grade-level/grade-band/series content.
Indicator 3o	Materials provide a range of representation of people and include detailed instructions and support for educators to effectively incorporate and draw upon students' different cultural, social, and community backgrounds to enrich learning experiences.

Scoring: Narrative Evidence Only

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

- Materials provide a range of representation of people, ensuring a broad range of cultural, racial, gender, and ability backgrounds are accurately and authentically represented.
- Materials provide detailed instructions and support for teachers on incorporating and drawing upon students' different cultural, social, and community backgrounds to enrich learning experiences.

About this indicator:

What is the purpose of this Indicator?

In 2022, EdReports conducted a landscape analysis of 15 different resources to help educators understand trends and best practices in culturally responsive education, highlighting ongoing efforts and areas for improvement in providing adequate support for culturally relevant instruction. This indicator examines whether materials reflect diverse identities, connect learning to real-world and culturally relevant contexts, and promote student student engagement through authentic representation, high expectations, and community involvement. In doing so, the indicator supports communities in engaging in deep discourse and aligning educational practices with their local contexts.

Research or Standards Connection:

In "Mirrors, Windows, and Sliding Glass Doors," Bishop (2015) argues that children's literature should reflect the diversity of our society, acting as both mirrors (for children to see themselves) and windows (for children to learn about others). Bishop points out that for many years, non-white children have been underrepresented in literature, leading to a lack of mirrors for them and a sense of being devalued in society. She emphasizes the importance of providing children with books that celebrate both our differences and similarities, ultimately helping us to understand and accept each other. Bishop uses examples of diverse voices and authors in children's literature to illustrate the power of stories to reflect authentic cultural experiences and traditions. She argues that when children are exposed to a variety of voices and perspectives, they are better able to understand and appreciate the richness and diversity of our world.

In "Culturally Responsive Education: A Primer for Policy and Practice," Johnston, Montalbano, and Kirkland (2017) explores the significance and implementation of culturally responsive education (CRE). The primer highlights the need to move beyond simply including culture as a token in the curriculum and emphasizes the importance of designing curricula that truly reflect the diverse cultural experiences of students. The authors raise questions about how to create curricula that are not only inclusive of diverse backgrounds but also address issues of historical oppression, and how to foster a true understanding of the dynamic and evolving nature of culture,

going beyond static representations. The primer also points to the need to develop culturally responsive standards that can be implemented within the current standards-based educational framework, ensuring that cultural responsiveness is not merely a superficial add-on but a fundamental element of the educational system. The authors argue that a truly culturally responsive curriculum should go beyond simply including diverse cultures as a token or a one-day event. It should reflect a deep understanding of the complexities of culture and address historical injustices and current inequalities. Furthermore, it should foster a sense of agency and empowerment for all students, enabling them to see their own cultural backgrounds as valuable assets and empowering them to engage in meaningful learning experiences.

Indicator 3o Guiding Question:

Do the materials provide guidance and a range of representation of people that supports educators in leveraging students' cultural, social, and community backgrounds to enhance learning?

Evidence Collection

In the instructional materials being reviewed:

- Describe how the materials reflect and affirm the diverse identities of students, ensuring a broad range of cultural, racial, gender, and ability backgrounds are accurately and authentically represented.
- Describe images and representations that depict students actively participating in learning experiences that are connected to real-world contexts.
    - These should include diverse students collaborating, problem-solving, or exploring concepts in ways that highlight their cultural and personal identities. Explicitly note if these images show students of different backgrounds in leadership roles, working together in a variety of group settings, and utilizing culturally relevant tools or methods.
- Describe specific examples where instructional content is linked to students' cultural experiences, interests, or community knowledge, fostering a deeper engagement and understanding of mathematics.
- Identify instructional guidance that encourages high expectations for all students, including those that differentiate learning to meet diverse cultural needs while maintaining academic rigor.
- Identify prompts that invite students to draw from their cultural backgrounds and personal experiences, enhancing their connection to the material and fostering a deeper sense of identity within the learning environment.
- Describe any other teacher materials that include guidance on how to actively involve community and family perspectives, drawing on local knowledge and cultural practices to enrich the learning experiences and promote students' role as contributors to their communities.

Cluster Meeting

Preparing for the cluster meeting:

- Do the materials include a wide range of student identities represented, reflecting the diversity of the classroom and broader society?
    - Do these portrayals challenge stereotypes and offer diverse narratives that contribute to an inclusive learning environment?
- How and where does instructional guidance actively connect to students' cultural knowledge and lived experiences, promoting meaningful learning?
- How and where do materials include specific strategies to ensure that all students have the opportunity to engage deeply with the content, regardless of their cultural background?
    - Do these strategies enhance the relevance of classroom content by drawing on the experiences, values, and resources of students' families and communities?
- How often do materials include adaptable approaches that cater to different cultural contexts?

During the cluster meeting:

- Discuss whether the materials include a wide range of student identities represented, reflecting the diversity of the classroom and broader society.
    - Discuss whether these portrayals challenge stereotypes and offer diverse narratives that contribute to an inclusive learning environment.
- Discuss how and where instructional guidance actively connects to students' cultural knowledge and lived experiences, promoting meaningful learning.
- Discuss how and where materials include specific strategies to ensure that all students have the opportunity to engage deeply with the content, regardless of their cultural background?
    - Discuss whether these strategies enhance the relevance of classroom content by drawing on the experiences, values, and resources of students' families and communities.
- Discuss how often do materials include adaptable approaches that cater to different cultural contexts.

Gateway 3: Teacher and Student Supports

Criterion 3.2	Materials are designed for each student's regular and active participation in grade-level/grade-band/series content.
Indicator 3p	Materials provide supports for different reading levels to ensure accessibility for students.

Scoring: Narrative Evidence Only

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

- Materials identify strategies to engage students in reading and accessing grade-level mathematics.
- Materials identify multiple entry points to help struggling readers access and engage in grade-level mathematics.

About this indicator:

What is the purpose of this Indicator?

This indicator examines whether materials provide supports for different reading levels to ensure accessibility for all students. It evaluates the inclusion of strategies that engage students in reading and accessing grade-level mathematics, as well as the identification of multiple entry points that help struggling readers engage with and understand mathematical concepts. The indicator ensures that materials promote equitable access and support diverse learners in achieving success in mathematics.

Research or Standards connection:
"Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense." (Common Core State Standards for Mathematics, p. 6).

Resources:

- Common Core State Standards for Mathematics (CCSSM)

Indicator 3p Guiding Question:

Do the materials provide supports for different reading levels to ensure accessibility for students?

Evidence Collection

Review teacher and student materials across the series.
Look for and record evidence to:

- Identify strategies to engage students in reading and accessing grade-level mathematics. Note: strategies and supports for engaging students in MP1, Make sense and persevere in solving problems and MP6, Attending to precision in language can also be noted here.
- Identify multiple entry points that present a variety of representations to help struggling readers to access and engage in grade-level mathematics.

Cluster Meeting

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

- How and where do the materials include specific supports or strategies to support students who read below grade level to engage with grade-level mathematics?
- How and where do the materials scaffold vocabulary or concepts to support readers below grade level?
- How and where do the materials use a variety of representations to engage students with grade-level content?
- Do materials include “just-right” pre-reading activities that offer visuals and other types of support and scaffolds for building essential and pertinent background knowledge on new or unfamiliar themes/ topics?

Gateway 3: Teacher and Student Supports

Criterion 3.2	Materials are designed for each student's regular and active participation in grade-level/grade-band/series content.
Indicator 3q	Manipulatives, both virtual and physical, are accurate representations of the mathematical objects they represent and, when appropriate, are connected to written methods.

Scoring:		
2 points • Manipulatives are accurate representations of mathematical objects and are connected to written methods.	1 point • Manipulatives are accurate representations of mathematical objects. OR • Manipulatives are connected to written methods.	0 points • Manipulatives are not accurate representations of mathematical objects and are not connected to written methods.

About this indicator:

What is the purpose of this Indicator?
This indicator determines how materials include manipulatives to support and represent mathematical objects, and connect to grade-level written methods.

Indicator 3q Guiding Question:

Are manipulatives, both virtual and physical, accurate representations of the mathematical objects they represent and, when appropriate, are connected to written methods?

Evidence Collection

Review teacher and student materials across the series.

Look for and record evidence to:

- Identify the use of physical and/or virtual manipulatives. Examples of manipulatives (physical or virtual) could include: two-color counters, calculator, coins, number cubes, playing cards, string, square tiles, unit cubes, colored chips, algebra tiles, grid paper, index cards, anchor charts, ruler, compass, protractor, geometry software, bar diagrams, fraction strips, number lines, decimal grids, x-y tables, pie charts, etc.
- Identify situations where manipulatives help students develop understanding of a concept.
- Describe if and how manipulatives are used and who is using them. Look for routine use of manipulatives so students understand their purpose and can independently choose to use any tools helpful to them, both for learning and for explaining their understanding.

- Identify alignment with content where manipulatives help develop conceptual understanding, as well as instances where they could be beneficial but are not used.
- Describe if and how students connect, and eventually transition from, the use of manipulatives to written methods.

Cluster Meeting

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

- How often are manipulatives used to develop understanding of content?
- Do students use manipulatives in a variety of situations so they understand their purpose and can use them effectively? Or do they just "check a box"?
- How are manipulatives used to build toward a written process?

Gateway 3: Teacher and Student Supports

Criterion 3.3

Intentional Design

Materials include a visual design that is engaging and references or integrates digital technology, when applicable, with guidance for teachers.

What is the purpose of this Criterion?

This criterion examines whether materials effectively integrate technology to enhance student engagement and learning. These technological integrations help students interact with grade-level content through interactive and diverse learning approaches, meeting diverse learning needs and preparing students for a tech-savvy world. The indicator evaluates whether materials provide opportunities and guidance for collaboration among teachers and students, leveraging digital tools to enhance communication and collaborative learning. It also assesses the visual design of materials to ensure they are engaging without being distracting and examines the consistency and clarity of layout across resources. Additionally, the indicator considers whether materials offer teacher guidance for embedding technology in teaching practices, aiming to improve lesson interactivity and accessibility. By including these elements, materials support critical skills development such as teamwork, communication, and digital literacy, while enhancing student understanding and engagement.

Scoring: Narrative Evidence Only

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

Gateway 3: Teacher and Student Supports

Criterion 3.3	Materials include a visual design that is engaging and references or integrates digital technology, when applicable, with guidance for teachers.
Indicator 3r	Materials integrate technology such as interactive tools, virtual manipulatives/objects, and/or dynamic software in ways that engage students in the grade-level/series standards, when applicable.

Scoring: Narrative Evidence Only

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

- Digital technology and interactive tools, such as data collection tools and/or modeling tools are available to students.
- Digital tools support student engagement in mathematics..
- Digital materials can be customized for local use (i.e., student and/or community interests).

About this indicator:

What is the purpose of this Indicator?

The purpose of this indicator is to ensure that materials incorporate technology effectively to enhance student engagement and learning. Such technological integrations can help students better understand and interact with grade-level standards by providing interactive and diverse approaches to learning. This use of technology not only helps to meet diverse learning needs and styles but also prepares students for a tech-savvy world by familiarizing them with digital tools important for their future academic and career pursuits.

Indicator 3r Guiding Question:

Do the materials integrate interactive tools and/or dynamic software in ways that support student engagement in mathematics, when applicable?

Evidence Collection

In the instructional materials being reviewed (when applicable):

- Consider if the digital materials include a range of technology and interactive tools, such as data collection and modeling tools, that are accessible to students. These tools should facilitate hands-on learning and exploration.
- Check that the digital tools align with and support engagement in mathematics by enhancing mathematical skills, such as problem-solving, reasoning, and communication, through interactive and multimedia content.
- Check that the digital tools align with course-level content standards and Mathematical Practices, enhancing student engagement with coherent and meaningful activities that foster a deeper grasp of mathematical principles.
- Verify that the digital materials can be customized or adapted for local use, allowing teachers to tailor content to reflect student interests and community contexts, thereby making learning more relevant and engaging.

- Assess whether the digital tools are easy to use for both teachers and students, with clear instructions and intuitive interfaces that facilitate seamless integration into the classroom.
- Look for interactive features that promote student engagement, such as quizzes, games, simulations, or virtual reality experiences, that encourage active participation and deeper learning.
- Confirm that the digital tools are integrated with core curriculum content, providing a cohesive learning experience that enhances rather than distracts from the main educational objectives.

Cluster Meeting

Preparing for the cluster meeting:

- Do the digital materials include a range of technology and interactive tools, such as data collection tools, simulations, virtual manipulatives, and modeling tools, that are accessible to students and facilitate hands-on exploration and deeper understanding of mathematical concepts?
- Do the digital tools align with and support engagement in mathematics by enhancing mathematical skills, such as problem-solving, reasoning, and communication, through interactive and multimedia content?
- Do the digital tools align with course-level content standards and Mathematical Practices, enhancing student engagement with coherent and meaningful activities that foster a deeper grasp of mathematical principles?
- Can the digital materials be customized or adapted for local use, allowing teachers to tailor mathematical content to reflect student interests and community contexts, thereby making learning more relevant and engaging?
- Are the digital tools easy to use for both teachers and students, with clear instructions and intuitive interfaces that facilitate seamless integration into math instruction?
- Do the digital tools include interactive features that promote student engagement, such as math-focused games, simulations, quizzes, or virtual manipulatives that encourage active participation and deeper mathematical learning?
- Are the digital tools integrated with core math curriculum content, providing a cohesive learning experience that enhances mathematical understanding rather than distracting from the main educational objectives?

During the cluster meeting:

- Discuss whether the digital materials include a range of technology and interactive tools, such as data collection tools, simulations, virtual manipulatives, and modeling tools, that are accessible to students and facilitate hands-on exploration and a deeper understanding of mathematical concepts.
- Discuss whether the digital tools align with and support engagement in mathematics by enhancing mathematical skills, such as problem-solving, reasoning, and critical thinking, through interactive and multimedia content.
- Discuss whether the digital tools align with course-level content standards and the Standards for Mathematical Practice, enhancing student engagement through coherent and meaningful activities that foster a deeper grasp of mathematical principles, reasoning, and problem-solving.
- Discuss whether the digital materials can be customized or adapted for local use, allowing teachers to tailor mathematical content to reflect student interests and community contexts, thereby making learning more relevant and engaging.
- Discuss whether the digital tools are easy to use for both teachers and students, with clear instructions and intuitive interfaces that facilitate seamless integration into mathematics instruction.
- Discuss whether the digital tools include interactive features that promote student engagement, such as math-focused quizzes, games, simulations, or virtual manipulatives that encourage active participation and deeper learning in mathematics.

- Discuss whether the digital tools are integrated with core mathematics curriculum content, providing a cohesive learning experience that enhances, rather than distracts from, the main mathematical objectives and standards.

Gateway 3: Teacher and Student Supports

Criterion 3.3	Materials include a visual design that is engaging and references or integrates digital technology, when applicable, with guidance for teachers.
Indicator 3s	Materials include or reference digital technology that provides opportunities for teachers and/or students to collaborate with each other, when applicable.

Scoring: Narrative Evidence Only

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

- Materials include or reference digital technology that provides opportunities for teachers and/or students to collaborate with each other, when applicable.
- Describe which stakeholders the materials support collaboration between: teacher to teacher, teacher to student, or student to student.

About this indicator:

What is the purpose of this Indicator?

This indicator considers if the materials provide opportunities and guidance for teachers and/or students to collaborate with each other and is applicable to materials with digital components only. By providing these tools, the materials aim to enhance communication and collaborative learning experiences, allowing participants to engage in mathematical tasks, collaborate on problem-solving, share strategies, and contribute to collective understanding and solutions. This collaboration supports the development of critical skills such as teamwork, communication, and digital literacy, which are increasingly important in today's interconnected and technology-driven world.

Indicator 3s Guiding Question:

Do the materials include or reference digital technology that provides opportunities for teachers and/or students to collaborate with each other, when applicable?

Evidence Collection

In the instructional materials being reviewed (when applicable):

- Check to see if the materials specify who is supported by the collaborative digital technology. This could include delineating features that facilitate collaboration between teacher to teacher, teacher to student, or student to student.
- Look for a diverse range of digital tools that support different types of mathematical collaboration, such as interactive problem-solving platforms, shared whiteboards for group work, virtual manipulatives for joint exploration, or forums for discussing mathematical strategies and solutions.
- Check for interactive features that promote real-time collaboration, such as live chat, video conferencing, or collaborative editing capabilities. These features should enable seamless interaction and cooperative work among participants.
- Assess whether the technology is user-friendly, with intuitive interfaces and clear instructions, ensuring that all intended users can easily navigate and utilize the collaborative features.

- Verify that the tools are accessible to users with diverse needs, providing features such as language support, assistive technology compatibility, and cross-platform functionality.
- Confirm that the collaborative tools are integrated with or complement the existing curriculum, aligning with learning objectives and enhancing educational outcomes through collaborative activities.
- Ensure that the digital tools offer opportunities for collaboration among students, such as shared math tasks, discussion forums, or group activities that support peer learning and mathematical communication skills.
- Check if the materials include or reference support resources or training opportunities for teachers and students to effectively use the collaborative digital tools.

Cluster Meeting

Preparing for the cluster meeting:

- Do the materials specify who is supported by the collaborative digital technology, such as detailing features that facilitate collaboration between teacher to teacher, teacher to student, or student to student?
- Is there a diverse range of digital tools that support different types of mathematical collaboration, including interactive problem-solving platforms, shared whiteboards for group work, virtual manipulatives for joint exploration, or forums for discussing mathematical strategies and solutions?
- Are there interactive features that promote real-time collaboration, such as live chat, video conferencing, or collaborative editing capabilities, enabling seamless interaction and cooperative work among participants?
- Is the technology user-friendly with intuitive interfaces and clear instructions, ensuring that all intended users can easily navigate and utilize the collaborative features?
- Are the tools accessible to users with diverse needs, providing features such as language support, assistive technology compatibility, and cross-platform functionality?
- Are the collaborative tools integrated with or do they complement the existing curriculum, aligning with learning objectives and enhancing educational outcomes through collaborative activities?
- Do the digital tools offer opportunities for collaboration among students, such as shared math tasks, discussion forums, or group projects that support peer learning and mathematical communication skills?
- Do the materials include or reference support resources or training opportunities for teachers and students to effectively use the collaborative digital tools?

During the cluster meeting:

- Discuss whether the materials specify who is supported by the collaborative digital technology, such as detailing features that facilitate collaboration between teacher to teacher, teacher to student, or student to student.
- Discuss whether there are a diverse range of digital tools that support different types of mathematical collaboration, including interactive problem-solving platforms, shared whiteboards for group work, virtual manipulatives for joint exploration, or forums for discussing mathematical strategies and solutions.
- Discuss whether there are interactive features that promote real-time collaboration, such as live chat, video conferencing, or collaborative editing capabilities, enabling seamless interaction and cooperative work among participants.
- Discuss whether the technology is user-friendly with intuitive interfaces and clear instructions, ensuring that all intended users can easily navigate and utilize the collaborative features.
- Discuss whether the tools are accessible to users with diverse needs, providing features such as language support, assistive technology compatibility, and cross-platform functionality.
- Discuss whether the collaborative tools are integrated with or if they complement the existing curriculum, aligning with learning objectives and enhancing educational outcomes through collaborative activities.

- Discuss whether the digital tools offer opportunities for collaboration among students, such as shared math tasks, discussion forums, or group projects that support peer learning and the development of mathematical communication skills.
- Discuss whether the materials include or reference support resources or training opportunities for teachers and students to effectively use the collaborative digital tools.

Gateway 3: Teacher and Student Supports

Criterion 3.3	Materials include a visual design that is engaging and references or integrates digital technology, when applicable, with guidance for teachers.
Indicator 3t	The visual design (whether in print or digital) supports students in engaging thoughtfully with the subject, and is neither distracting nor chaotic.

Scoring: Narrative Evidence Only

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

- Images, graphics, and models support student learning and engagement without being visually distracting. They also clearly communicate information or support student understanding of topics, texts, or concepts.
- Teacher and student materials are consistent in layout and structure across lessons/modules/units.
- Materials' organizational features (table of contents, glossary, index, internal references, table headers, captions, etc.) are clear, accurate, and error-free.

About this indicator:

What is the purpose of this Indicator?

This indicator examines whether the visual design of materials effectively supports student engagement with the content without being distracting or chaotic. This indicator considers the consistency in layout of the teacher and student materials, examines whether resources clearly communicate information, and examines whether resources contain any errors as they relate to usability. A well-designed visual layout can enhance understanding by organizing information clearly, highlighting key concepts, and guiding students' attention to important concepts. By ensuring the design is clean, intuitive, and supportive of the subject matter, the materials can facilitate a more focused and meaningful learning experience, helping students to concentrate on and thoughtfully engage with the content.

Indicator 3t Guiding Question:

Does the visual design (whether in print or digital) support students in engaging thoughtfully with the subject, and is neither distracting nor chaotic?

Evidence Collection

In the instructional materials being reviewed:

- Ensure that images, graphics, and models used in the materials clearly support and enhance student learning and engagement. They should be directly related to the content, helping to clarify or illustrate key concepts without causing visual distraction.
- Check that the visuals contribute to a deeper understanding of topics, texts, or concepts by being clear, relevant, and appropriately detailed.
- Confirm that the layout and structure of both teacher and student materials are consistent across lessons, modules, or units. This consistency helps students and teachers familiarize themselves with the format, easily locate information, and understand how different sections connect.

- Ensure that organizational features such as the table of contents, glossary, index, and internal references are clear, accurate, and free from errors, facilitating easy navigation and comprehension.
- Assess whether the visual design, including text size, font, and color contrast, is readable and accessible to all students, including those with visual impairments or learning disabilities.
- Verify that the materials make balanced use of space, avoiding overcrowding or excessive whitespace, to maintain a tidy and organized appearance that aids focus and comprehension.
- Check for seamless integration of visuals with the content, ensuring that text and images complement each other and contribute to a cohesive learning experience.
- Look for clear and informative captions and labels on visuals that help explain and contextualize their content, making it easier for students to connect visuals with the written material.

Cluster Meeting

Preparing for the cluster meeting:

- Do images, graphics, and models used in the materials clearly support and enhance student learning and engagement by being directly related to the content, helping to clarify or illustrate key concepts without causing visual distraction?
- Do the visuals contribute to a deeper understanding of topics, texts, or concepts by being clear, relevant, and appropriately detailed?
- Is the layout and structure of both teacher and student materials consistent across lessons, modules, or units, helping students and teachers familiarize themselves with the format, easily locate information, and understand how different sections connect?
- Are organizational features such as the table of contents, glossary, index, and internal references clear, accurate, and free from errors, facilitating easy navigation and comprehension?
- Is the visual design, including text size, font, and color contrast, readable and accessible to all students, including those with visual impairments or learning disabilities?
- Do the materials make balanced use of space, avoiding overcrowding or excessive whitespace, to maintain a tidy and organized appearance that aids focus and comprehension?
- Is there seamless integration of visuals with the content, ensuring that text and images complement each other and contribute to a cohesive learning experience?
- Are there clear and informative captions and labels on visuals that help explain and contextualize their content, making it easier for students to connect visuals with the written material?

During the cluster meeting:

- Discuss whether the images, graphics, and models used in the materials clearly support and enhance student learning and engagement by being directly related to the content, helping to clarify or illustrate key concepts without causing visual distraction.
- Discuss whether the visuals contribute to a deeper understanding of topics, texts, or concepts by being clear, relevant, and appropriately detailed.
- Discuss whether the layout and structure of both teacher and student materials are consistent across lessons, modules, or units, helping students and teachers familiarize themselves with the format, easily locate information, and understand how different sections connect.
- Discuss whether there are organizational features such as the table of contents, glossary, index, and internal references clear, accurate, and free from errors, facilitating easy navigation and comprehension.
- Discuss whether the visual design, including text size, font, and color contrast, is readable and accessible to all students, including those with visual impairments or learning disabilities.
- Discuss whether the materials make balanced use of space, avoiding overcrowding or excessive whitespace, to maintain a tidy and organized appearance that aids focus and comprehension.

- Discuss whether there is seamless integration of visuals with the content, ensuring that text and images complement each other and contribute to a cohesive learning experience.
- Discuss whether there are clear and informative captions and labels on visuals that help explain and contextualize their content, making it easier for students to connect visuals with the written material.

Gateway 3: Teacher and Student Supports

Criterion 3.3	Materials include a visual design that is engaging and references or integrates digital technology, when applicable, with guidance for teachers.
Indicator 3u	Materials provide teacher guidance for the use of embedded technology to support and enhance student learning, when applicable.

Scoring: Narrative Evidence Only

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

- Teacher guidance is provided for the use of embedded technology to support and enhance student learning, when applicable.

About this indicator:

What is the purpose of this Indicator?

This indicator examines whether the materials provide teacher guidance for the use of embedded technology to support and enhance student learning and is applicable to materials with digital components only. This guidance helps teachers integrate technology into their teaching practices seamlessly and effectively, maximizing the potential benefits of digital tools and resources. By doing so, materials can empower teachers to leverage technology to make lessons more interactive, engaging, and accessible, thus improving student understanding and engagement.

Indicator 3u Guiding Question:

Do the materials provide teacher guidance for the use of embedded technology to support and enhance student learning, when applicable?

Evidence Collection

In the instructional materials being reviewed (when applicable):

- Check to see that the materials provide clear and detailed instructions for teachers on how to use embedded technology in the classroom, including step-by-step guides or tutorials if necessary.
- Check for practical examples or case studies that illustrate how the technology can be effectively integrated into lessons to enhance student learning.
- Ensure there are resources or references for technical support and troubleshooting, helping teachers address any issues that may arise with technology use.
- Look for links or references to professional development opportunities or resources that can help teachers improve their proficiency in using technology for instructional purposes.
- Verify whether the guidance includes ways to use technology for assessing student progress and providing feedback, supporting ongoing learning and assessment

Cluster Meeting

Preparing for the cluster meeting:

- Do the materials provide clear and detailed instructions for teachers on how to use embedded technology in the classroom, including step-by-step guides or tutorials if necessary?
- Are there practical examples or case studies that illustrate how the technology can be effectively integrated into lessons to enhance student learning?
- Are there resources or references for technical support and troubleshooting, helping teachers address any issues that may arise with technology use?
- Are there links or references to professional development opportunities or resources that can help teachers improve their proficiency in using technology for instructional purposes?
- Does the guidance include ways to use technology for assessing student progress and providing feedback, supporting ongoing learning and assessment?

During the cluster meeting:

- Discuss whether the materials provide clear and detailed instructions for teachers on how to use embedded technology in the classroom, including step-by-step guides or tutorials if necessary.
- Discuss whether there are practical examples or case studies that illustrate how the technology can be effectively integrated into lessons to enhance student learning.
- Discuss whether there are resources or references for technical support and troubleshooting, helping teachers address any issues that may arise with technology use.
- Discuss whether there are links or references to professional development opportunities or resources that can help teachers improve their proficiency in using technology for instructional purposes.
- Discuss whether the guidance includes ways to use technology for assessing student progress and providing feedback, supporting ongoing learning and assessment.

