Review Acceleration: Mathematics K-5

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Math Review Acceleration Publisher Directions

Review Acceleration Goal:

During this pilot we aim to see if publisher input into evidence collection for each indicator paired with our expert educator reviews and scoring leads to an accelerated and more efficient review process.

To Co	mplete: for each indicator you are asked to share:
	Resources to help reviewers score this indicator.
	Provide evidence for the indicator that helps to answer the questions under the "Guiding questions" and
	gives insight into your program and its organization.
	Provide evidence that is collected throughout the program and not solely in one grade level or
	chapter/unit.

Request: For all resources and evidence, please provide links and/or exact location to help our reviewers find the resource and evidence provided within the program.

Helpful Reminders:

- You are collecting evidence and providing resources for reviewers for each individual indicator. By
 providing multiple pieces of evidence (across grade bands) for each indicator, our reviewers can use that
 to assess alignment to the indicator.
- You are only providing resources and collecting evidence, not scoring. Our reviewers will craft final rationale and score determinations.
- Please take time to review each indicator's Evidence Guide (linked) prior to collecting evidence in order to deeply understand the indicator.
- Please select evidence you believe best embodies and meets the indicator.
- Be specific- include page numbers, digital locations and links to evidence when possible. Our educator reviewers will not only use what is shared in this document, but will verify the cited evidence in your materials. The more specific location, the better.
- If possible, digitally link to the location of your evidence and resources.
- Please directly paste in evidence, using equation editor when necessary. Only on rare occasions screenshot items to help direct reviewers to the evidence.
- Evidence ideally is collected throughout the program and not solely in one grade level or chapter/unit.
- While we have provided space to share resources and provide evidence across the program, please be sure to share evidence for each grade level and note any differences within the program between grade levels.
- Our reviewers will be discussing the "cluster meeting questions" listed in the Evidence Guide and
 reviewing your resources and evidence collected for each indicator prior to determining a final numerical
 score and final rationale.

Resources:

You will be reviewed using the EdReports Math Grades K-8 2.0 Tool. There are no reports posted on our webpage yet using this tool. You can use the <u>cross walk doc</u> to our 1.5 version tool to see examples of evidence

shared in reports.

1a Publisher Evidence Collection

Criterion 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.

Related Resources

• 1a Evidence Guide

Scoring Criteria

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.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 1a, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 1a Evidence Slides.

These resources within ClearMath Elementary align to Indicator 1a with components for each grade level.

- Assessment Suite
- Assessment Guide

Indicator 1a Guiding Question:

Do assessments address grade-level standards?

Evidence Collection

Examples of grade-level assessments or assessment items.

Summative assessments (Snapshot Assessments, End-of-Topic Assessments, and End-of-Module Assessments) within the ClearMath Elementary Assessment Suite assess grade-level standards. ReadyCheck Assessments assess readiness standards from prior grade levels. The Assessment Guide for each grade indicates which standards align with each assessment item.

Kindergarten Assessments

• Example: Topic 5 Representing Addition and Subtraction End-of-Topic Assessment

Grade 1 Assessments

Example: Topic 5 Addition and Subtraction Fact Families
 End-of-Topic Assessment

Grade 2 Assessments

 Example: Topic 5 Addition and Subtraction on a Number Line <u>End-of-Topic Assessment</u>

Grade 3 Assessments

Example: Topic 5 The Unit Fraction <u>End-of-Topic</u>
 Assessment

Grade 4 Assessments

 Example: Topic 5 Adding and Subtracting Fractions with Like Denominators <u>End-of-Topic Assessment</u>

Grade 5 Assessments

Example: Topic 9 Multiplying Fractions <u>End-of-Topic</u>
 Assessment

Examples of above-grade-level assessments or assessment items that could be omitted or modified or are mathematically reasonable.

No assessment items include above-grade-level items. See the Assessment Guide for on-grade-level standards alignments.

Examples of assessments or assessment items that address (i) probability; (ii) statistical distributions; (iii) similarity, transformations, and/or congruence.

No assessments or assessment items address probability, statistical distributions, similarity, transformations, or congruence.

1b Publisher Evidence Collection

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.
Related Resources	1b Evidence Guide

Scoring Criteria

2 points

 Materials consistently identify the standards and practices assessed for formal assessments.

1 point

 Materials identify the standards and practices assessed for some of the formal assessments.

OR

Materials consistently identify
the standards and practices
assessed for formal
assessments, but do not include
all standards and practices for
the grade or course level.

0 points

 Materials do not identify the standards and practices assessed for the formal assessments.

OR

 Materials identify the standards and practices assessed for some of the formal assessments, but do not include all standards and practices for the grade or course level.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 1b, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 1b Evidence Slides.

These resources within ClearMath Elementary align to Indicator 1b with components for each grade level.

- Assessment Suite
- Assessment Guide

Indicator 1b Guiding Question:

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

Evidence Collection

Where in the instructional materials do assessments explicitly state which standards are being assessed, and at what level (unit, lesson, task, or item)?

Assessment Blueprints in the Assessment Guide identify the specific Common Core State Standards assessed by each item.

Students continue participating in the Standards for Mathematical Practice through assessments. Assessment item types include modeling, short answer, and extended response that elicit student engagement with the SMPs. Students also self-evaluate their participation in the Habits of Mind (SMPs) through Mindset Reflections in Re-Engagement Lessons. To view which Habits of Mind students reflect on in each Re-Engagement Lesson throughout the course, refer to the Habits of Mind table in the Assessment Guide for each grade.

- Kindergarten Assessment Guide, pp. 13-14
- Grade 1 Assessment Guide, pp. 12-13
- Grade 2 Assessment Guide, pp. 12-14
- Grade 3 Assessment Guide, pp. 13-14
- Grade 4 Assessment Guide, pp. 12-13
- Grade 5 Assessment Guide, pp. 12-14

How do the materials ensure that the standards identified in assessments align accurately with the content and skills being measured? Assessments align with grade-level standards by connecting directly to lesson-level Content Expectations and Learning Goals. Assessment Blueprints in the Assessment Guide identify the specific standards assessed at the item level, ensuring alignment between standards, instruction, and assessment. This <u>slide</u> explains the connections between the Common Core State Standards and ClearMath Elementary Context Expectations and Learning Goals.

Are there examples of assessments that do not identify the standards and/or practices?

Performance Tasks integrate multiple concepts and practices in open-ended ways and may not align directly to a single CCSS. These tasks emphasize problem solving, reasoning, and communication across content strands, supporting student transfer and synthesis rather than targeting individual standards.

Ongoing Assessments, located within the Lesson Facilitation Notes, are formative assessment prompts that support teachers in monitoring student understanding in real time. While these assessments do not identify an alignment with individual Common Core State Standards, they are intentionally connected to the grade-level standards identified for each lesson. These prompts help teachers gather evidence of student

thinking as it develops, allowing for flexible and responsive instruction.

1c Publisher Evidence Collection

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.

Related Resources

• <u>1c Evidence Guide</u>

Scoring Criteria

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.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 1c, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 1c Evidence Slides

These resources within ClearMath Elementary align to Indicator 1c with components for each grade level.

- Assessment Suite
- Assessment Guide
- Teacher's Implementation Guides
- Student Resource Books

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

Examples of different types of modalities (e.g., writing, illustrating, demonstrating, modeling, oral presentations, and performance tasks) used for student assessments.

Lesson-level assessments offer multiple modalities, including writing, illustrating, demonstrating, modeling, and oral presentations, for students to demonstrate understanding.

Examples of Ongoing Assessments

Kindergarten

Module 1, Topic 1, Lesson 3: Identifying the Number 3
 TIG p. 38

Grade 3

 Module 3, Topic 8, Lesson 7: Patterns in Multiplication TIG p. 761

Grade 5

 Module 1, Topic 2, Lesson 6: Grouping with Parentheses TIG p. 159

Examples of Purposeful Questions

Grade 1

 Module 4, Topic 10, Lesson 6: Bigger Jumps on the Number Line, Explore 1: Determining Rules with Greater Numbers TIG pp. 1084-1085

Grade 2

 Module 2, Topic 4, Lesson 5: Estimating and Measuring in Meters, Explore 2: Choosing an Appropriate Unit TIG pp. 444-445

Grade 4

 Module 2, Topic 5, Lesson 8: Adding Mixed Numbers with Like Denominators, Example 1: Strategies for Adding Mixed Numbers

TIG pp. 502-503

Examples of Reflect and Summarize

Kindergarten

Module 1, Topic 1, Lesson 2: Identifying the Number 2
 TIG p. 33

Grade 3

 Module 4, Topic 10, Lesson 6: Comparing Fractions on a Number Line

TIG p. 985

Grade 4

 Module 2, Topic 5, Lesson 1: Modeling Addition of Fractions

TIG p. 445

Examples of My Just Right Problem (Grades 1-5 only)

Grade 1

Module 1, Topic 3, Lesson 1: Adding with Quantities
 TIG p. 223

Grade 2

 Module 4, Topic 10, Lesson 5: Subtraction Within Contexts TIG p. 1050

Grade 5

 Module 4, Topic 10, Lesson 3: Connecting Fraction Multiplication and Division TIG p. 929

Examples of Mindset Reflections

Kindergarten

 Module 1, Topic 2, Lesson 3: Re-Engaging with Identifying the Numbers 1-7

TIG p. 133

Grade 2.

 Module 4, Topic 11, Lesson 9: Re-Engaging with Adding and Subtracting Tens and Hundreds

TIG p. 1170

Grade 4

 Module 3, Topic 8, Lesson 7: Re-Engaging with Multiplying Whole Numbers and Non-Unit Fractions

TIG p. 835

Module- and Topic-level assessments incorporate a range of modalities, including writing, illustrating, demonstrating, modeling, and performance tasks to capture student thinking.

Examples of ReadyCheck Assessments (Grades 1-5 only)

- Grade 1, Module 1, Topic 2 ReadyCheck
- Grade 2, Module 2, Topic 4 ReadyCheck
- Grade 5, Module 4, Topic 9 ReadyCheck

Examples of Snapshot Assessments

• Kindergarten, Module 3, Topic 5 Snapshot

- Grade 3, Module 3, Topic 7 Snapshot
- Grade 4, Module 1, Topic 3 Snapshot

Examples of End-of-Topic Assessments

- Kindergarten, Module 2, Topic 4 End-of-Topic Assessment
- Grade 2, Module 5, Topic 13 End-of-Topic Assessment
- Grade 4, Module 3, Topic 6 End-of-Topic Assessment

Examples of End-of-Module Assessments

- Grade 1, Module 4 End-of-Module Assessment
- Grade 3, Module 5 End-of-Module Assessment
- Grade 5, Module 3 End-of-Module Assessment

Examples of Performance Tasks

- Grade 1, Module 1, Topic 1: Graphing in the Great Outdoors
- Grade 3, Module 4, Topic 10: The Mile Running Test
- Grade 4, Module 5, Topic 12: Who Belongs?

Example of Formative Counting Assessment (Kindergarten only)

Formative Kindergarten Counting Assessment

Examples of different types of items used for student assessments and how they are used to measure student performance (e.g., performance tasks, discussion questions, constructed response questions, project- or problem-based tasks, portfolios, justified multiple choice).

Assessments use a variety of item types to measure student performance in meaningful and developmentally appropriate ways.

Ongoing Assessments are point-of-use questions that provide opportunities, guidelines, and suggestions for observing and monitoring student progress during an activity.

Purposeful Questions are overarching questioning strategies present in every lesson to support discussion facilitation and promote analysis and higher-order thinking skills.

Reflect activities include open-ended prompts and constructed response items that invite students to explain their thinking, reflect on strategies, and demonstrate understanding in their own words. These responses help teachers gauge conceptual understanding and metacognitive awareness.

ReadyChecks at both the module and topic levels feature a mix of item types, including visual models, short constructed responses, and sometimes justified multiple–choice questions, that assess readiness for new learning. These items allow teachers to identify misconceptions and plan targeted instruction.

Snapshots are brief, formative checks embedded within topics containing 10 or more lessons. They provide teachers with insight into student thinking.

End-of-Topic and End-of-Module assessments offer a range of problem-solving items that ask students to solve, represent, and explain mathematical ideas in multiple ways, providing a broader view of skill mastery and conceptual understanding.

Performance Tasks emphasize application and synthesis. These project- or problem-based tasks require students to use models, organize their reasoning, and communicate their ideas. Whether through illustrations, written justifications, or presentations, these tasks offer a deep look at how students integrate multiple concepts and practices.

Examples of how assessments address sufficient complexity.

ClearMath Elementary assists teachers in understanding the why behind each assessment item by tagging items with Common Core State Standards and a Depth of Knowledge (DOK) level.

Assessments align with grade-level CCSS. Since these expectations often cover multiple aspects of rigor, some items might target more than one aspect. However, not every question needs to address all three aspects. This strategic choice depends on the particular CCSS the item assesses.

ClearMath Elementary assessments offer a well-rounded view of each student's mathematical understanding, ensuring teachers can accurately gauge the depth and breadth of students' skills and knowledge.

The Grade 4 Module 2 End-of-Module Assessment is <u>an example</u> of how assessments address sufficient complexity with support from the Assessment Blueprint in the Assessment Guide.

- Grade 4 Module 2 End-of-Module Assessment
- Grade 4 Assessment Guide, p. 106

1d Publisher Evidence Collection

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.

Related Resources

• 1d Evidence Guide

Scoring Criteria

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.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 1d, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 1d Evidence Slides.

These resources within ClearMath Elementary align to Indicator 1d with components for each grade level.

- <u>Mathematical Progressions and Connections</u>
- Teacher's Implementation Guides
- Student Resource Books

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

Examples of where/how the materials engage all students in extensive work with grade-level problems to meet the full intent of standards. Include examples of where/how the materials address the full intent of the standards.

The Mathematical Progressions and Connections book provides a detailed standards alignment and dot matrix indicating where the materials address the full intent of the standards.

The Teacher's Implementation Guide includes a Teacher's Implementation Guide Overview, Module Overviews, Topic Overviews, and Lesson Overviews that each indicate the Content Expectations developed throughout the course, modules, topics, and lessons.

The Indicator 1d slides reference these grade-specific examples:

Kindergarten: Slides

 Module 5, Topic 10, Lesson 2: Counting Ten and Some More

<u>TIG pp. 1157–1166</u> SRB pp. 283–284

 Module 5, Topic 10, Lesson 5: Re-Engaging with Composing Teen Numbers

TIG pp. 1187–1196 SRB pp. 289–292

Grade 1: Slides

 Module 5, Topic 11, Lesson 6: Subtracting Tens <u>TIG pp. 1225–1232</u> <u>SRB pp. 505–508</u>

 Module 5, Topic 11, Lesson 8: Re-Engaging with Subtracting Tens
 TIG pp. 1241-1250
 SRB pp. 513-518

Grade 2: Slides

 Module 1, Topic 2, Lesson 3: Representing 3-Digit Numbers TIG pp. 169–178 SRB pp. 69–72

 Module 1, Topic 2, Lesson 4: Re-Engaging with Multiple Representations of 3-Digit Numbers

<u>TIG pp. 179–188</u> SRB pp. 73–78

Grade 3: Slides

 Module 5, Topic 13, Lesson 6: Using Addition to Determine Perimeter

TIG pp. 1291–1298 SRB pp. 585–588 Module 5, Topic 13, Lesson 9: Re-Engaging with Perimeter and Area

<u>TIG pp. 1317–1326</u> <u>SRB pp. 597–604</u>

Grade 4: Slides

 Module 3, Topic 6, Lesson 3: Multiplicative Comparisons Using Equations

<u>TIG pp. 573–580</u>

SRB pp. 263-266

• Module 3, Topic 6, Lesson 4: Re-Engaging with Additive and Multiplicative Comparisons

<u>TIG pp. 581–588</u> <u>SRB pp. 267–270</u>

Grade 5: Slides

• Module 4, Topic 9, Lesson 3: Interpreting a Fraction as Division

<u>TIG pp. 793–800</u>

SRB pp. 353-358

 Module 4, Topic 9, Lesson 5: Re-Engaging with Fractions as Quotients

TIG pp. 809-818

SRB pp. 363-366

1e Publisher Evidence Collection

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.	
Related Resources		<u>1e Evidence Guide</u>	

Appendix A K-8.pdf

Scoring Criteria

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.
 - o K-2 < 75%
 - 0 3-8 < 65%

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 1e, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 1e Evidence Slides.

The dot matrix for each course outlines the standards associated with each lesson and distinguishes whether each lesson addresses at least one major cluster/domain of the grade. The percentage in each row of the dot matrix relates the instances of the standard in that column to the total number of opportunities across the course.

ClearMath Elementary Dot Matrices

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

Total amount of units/chapters (including assessments) that

Percent of Topics addressing Major Work for each course: Kindergarten: 12 of 12 topics (100%)

address major work of the Grade 1: 10 of 12 topics (83.3%) grade. Include calculations and Grade 2: 11 of 13 topics (84.6%) examples. Grade 3: 14 of 14 topics (100%) Grade 4: 11 of 13 topics (84.6%) Grade 5: 11 of 14 topics (78.5%) Total amount of Percent of Lessons addressing Major Work for each course: lessons/activities (including Kindergarten: 101 out of 132 lessons (76.5%) assessments) that address major Grade 1: 103 out of 135 lessons (76.3%) work of the grade. Include Grade 2: 102 out of 135* lessons (75.6%) calculations and examples. Grade 3: 108 out of 136 lessons (79.4%) Grade 4: 102 out of 135 lessons (75.6%) Grade 5: 101 out of 136* lessons (74.3%) *Total lessons do not include two optional lessons in Grade 2 and two optional lessons in Grade 5 Total amount of instructional Our materials offer pacing guidance, but decisions about actual time (including assessments) instructional time are made at the classroom, school, or district that address major work of the level. Calculating the percentage of time spent on major work grade. Include calculations and based on our suggested pacing requires assumptions about examples. implementation that we can't reliably make. This level of specificity shifts the focus from evaluating the design of the materials to predicting how teachers will use them. We did not include assessment data for these reasons: Any additional perspectives and/or calculations that were Units/Chapters: The prompt asks for "Total amount of considered. Include reasoning units/chapters (including assessments)," but assessments are typically embedded, not standalone. It's unclear how for including additional perspectives and calculations. to count units any differently with this addition. Lessons/Activities: Similarly, including assessments here suggests they are separable from lessons, when in our case they're integrated—students may demonstrate learning within or immediately after instruction. If we are calculating them as separate activities, then this would weigh out counts in ways that no longer accurately represent our focus on the major work by overrepresenting it. Instructional Time: Including assessment time here conflates instructional time with assessment time. We embed assessments as, for, and of learning. Mixing them into this calculation doesn't give a clean picture of how the program allocates time toward the major work of the

grade.

From the above perspectives, determine which is the most representative of the materials. Include reasoning for determination.

Each lesson in ClearMath Elementary represents approximately 60 minutes of instruction with the goal of completing one lesson each day. Classroom communities can complete the sequence of lessons within a regular school year, interleaving approximately 30 days for assessments. When defining instructional time, ClearMath Elementary focuses specifically on days spent engaging in concept and re-engagement lessons. For this reason, the percentage of lessons in each grade addressing major work is the most representative of the time spent addressing major work of the grade for the program.

1f Publisher Evidence Collection

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.	
Related Resources	If Evidence Guide And a politic A. K. S. politic And a	

March Properties
 March Properties

Scoring Criteria

2 points

 Connections between supporting and major work enhance focus on major work through explicit use of the coherence map.

1 point

 Multiple 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.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 1f, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 1f Evidence Slides.

These resources within ClearMath Elementary align to Indicator 1f with components for each grade level.

- <u>Mathematical Progressions and Connections</u>
- Teacher's Implementation Guides
- Student Resource Books

Indicator 1f Guiding Question:

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: list all the standard connections presented from the <u>coherence</u> <u>map</u>. Only need one per connection.)

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

ClearMath Elementary ensures that supporting content meaningfully enhances focus and coherence by reinforcing and connecting to the major work of each grade. The design of the course and lesson sequences and topic-level groupings deepen student understanding through integrated tasks that connect supporting and major clusters. The slides for each grade provide a detailed description of each connection.

Kindergarten: Slide

- K.MD.A and K.CC.6: Topic 4 Sorting by Attributes
 TIG pp. 371-524
 SRB pp. 111-148
- K.MD.B and K.CC.6: Topic 4 Sorting by Attributes
 TIG pp. 371-524
 SRB pp. 111-148
- K.G.A and K.CC.6: Topic 3 Comparing Numbers and Shapes

TIG pp. 215-370 SRB pp. 77-110

 K.G.B and K.CC.6: Topic 3 Comparing Numbers and Shapes

TIG pp. 215-370 SRB pp. 77-110

Grade 1: Slide

• 1.MD.4 and 1.OA.6: Topic 2 Addition and Subtraction Strategies to 20

<u>TIG pp. 93-204</u> <u>SRB pp. 37-82</u>

 1.G.1 and 1.MD.1: Topic 7 Attributes of Shapes and Solids TIG pp. 675-812 SRB pp. 269-328

Grade 2: Slides

- 2.OA.3 and 2.OA.2: Topic 1 Composing and Decomposing to Add and Subtract TIG pp. 3-136 SRB pp. 1-60
- **2.OA.4, 2.NBT.2, and 2.NBT.8**: Topic 11 Foundations for Multiplication

<u>TIG pp. 1073-1208</u>

SRB pp. 459-520

 2.MD.7, 2.MD.6, and 2.NBT.2: Topic 8 Measuring Time TIG pp. 805-896 SRB pp. 355-388

2.MD.8 and 2.NBT.5: Topic 9 Building Addition Fluency
 TIG pp. 899-988
 SRB pp. 389-426

 2.MD.D and 2.NBT.5: Topic 6 Data Decisions at School TIG pp. 605-682 SRB pp. 277-308

 2.G.2, 2.NBT.2, and 2.NBT.8: Topic 11 Foundations for Multiplication
 TIG pp. 1073-1208
 SRB pp. 459-520

Grade 3: Slides

 3.NBT.A and 3.OA.D: Topic 4 Using the Number Line TIG pp. 251-396 SRB pp. 117-204

3.MD.3 and 3.OA.8: Topic 3 Scaled Data Displays
 TIG pp. 173-248
 SRB pp. 75-116

 3.MD.4 and 3.NF.2a: Topic 6 Measuring with Fractions TIG, pp. 487-584 SRB pp. 243-278

 3.MD.8 and 3.MD.7: Topic 13 Classifying and Measuring 2-Dimensional Shapes
 TIG pp. 1233-1326

SRB pp. 563-604

• **3.G.A and 3.MD.7**: Topic 13 Classifying and Measuring 2-Dimensional Shapes

TIG pp. 1233-1326 SRB pp. 563-604

• **3.G.2 and 3.NF.1**: Topic 5 The Unit Fraction TIG pp. 397-486

SRB pp. 205-242

 3.G.2 and 3.MD.1: Topic 6 Measuring with Fractions TIG pp. 487-584 SRB pp. 243-278

Grade 4: Slides

• **4.OA.4 and 4.OA.2**: Topic 6 Patterns and Multiplicative Comparisons

<u>TIG pp. 545-654</u> SRB pp. 255-304

• **4.OA.5** and **4.OA.2**: Topic 6 Patterns and Multiplicative Comparisons

<u>TIG pp. 545-654</u> SRB pp. 255-304

 4.MD.1, 4.NBT.1, and 4.NBT.5: Topic 6 Patterns and Multiplicative Comparisons <u>TIG pp. 545-654</u>

SRB pp. 255-304

 4.MD.2, 4.NBT.1, and 4.NBT.5: Topic 6 Patterns and Multiplicative Comparisons

<u>TIG pp. 545-654</u> SRB pp. 255-304

4.MD.3, 4.OA.3, 4.NBT.4, 4.NF.3, and 4.NF.4: Topic 13
 Operating with Measures
 TIG pp. 1225-1312
 SRB pp. 573-614

 4.MD.4 and 4.NF.1: Topic 2 Fraction Equivalence and Comparisons

TIG pp. 129-242 SRB pp. 63-114

 4.MD.C and 4.OA.3: Topic 11 Building Blocks of Geometry TIG pp. 1045-1138
 SRB pp. 487-538

 4.G.1 and 4.OA.3: Topic 11 Building Blocks of Geometry TIG pp. 1045-1138 SRB pp. 487-538

Grade 5: Slides

 5.OA.A and 5.NF.5b: Topic 9 Multiplying Fractions TIG pp. 765-894 SRB pp. 345-414

 5.MD.1 and 5.NBT.1: Topic 4 Patterns in Place Value TIG pp. 335-438 SRB pp. 151-196

 5.MD.B and 5.NF.A: Topic 11 Adding and Subtracting Fractions and Mixed Numbers
 TIG pp. 983-1114

SRB pp. 459-526

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

1.MD.3, 1.G.2, and 1.G.3: Topic 7 Attributes of Shapes and Topic 8 Equal Shares and Time

It is mathematically reasonable to separate the Measurement and Data clusters and the Geometry clusters from the major work of the grade because the major work of the grade focuses on number relationships, place value, and applying operations, which requires a different type of reasoning than the observational and categorical reasoning that is involved in measurement and data and geometry.

- **2.G.1, and 2.G.3:** Topic 7 Two- and Three-Dimensional Shapes In this topic students reason with shapes and their attributes. It is mathematically reasonable to separate the Geometry cluster from the major work of the grade because the major work of the grade focuses on number place-value reasoning, operations with addition and subtraction, and measuring with standard units, which requires a different type of reasoning than the spatial reasoning that is involved in geometry.
- **4.G.2 and 4.G.3:** Topic 12 Classifying 2-Dimensional Figures Students classify shapes by properties of their lines and angles and connect these understandings to measure angles in triangles and classify triangles based on their angle measures. They also apply their understanding of classification of shapes to generate shape patterns. It is mathematically reasonable to separate these supporting clusters from the major work of the grade because the major work of the grade focuses on numeric and operational thinking, which is different from the analyzing and classification involved in these supporting clusters.
- **5.OA.3 and 5.G.A**: Topic 13 Introduction to the Coordinate Plane It is mathematically reasonable to separate these supporting clusters from the major work of the grade because the coordinate plane introduces a new representational system, reasoning process, and spatial concepts that are different from place value and base-ten reasoning, fraction operations, and volume.
- **5.G.B**: Topic 14 Classifying Quadrilaterals
 It is mathematically reasonable to separate this supporting cluster from the major work of the grade because classifying two-dimensional figures involves attribute analysis and logical reasoning that is different from place value and base-ten reasoning, fraction operations, and volume.

1g Publisher Evidence Collection

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.
Related	1g Evidence Guide

Resources

Scoring Criteria

2 points

There are connections from major work to major work throughout the grade-level materials, when appropriate.

1 points

Multiple 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.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 1g, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 1g Evidence Slides.

These resources within ClearMath Elementary align to Indicator 1g with components for each grade level.

- <u>Mathematical Progressions and Connections</u>
- Teacher's Implementation Guides
- Student Resource Books

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**.

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

Examples of connections between major clusters/domains.

The sequence of lessons and topic-level groupings in ClearMath Elementary intentionally connect major clusters within a domain and across domains in a grade. These connections strengthen coherence by supporting students to develop and demonstrate relationships among concepts and apply their understanding in integrated and meaningful ways.

Kindergarten: <u>Slide</u>

 K.CC.A and K.CC.C: Topic 7 Comparing on a Number Path

TIG pp. 785-898 SRB pp. 203-230

K.OA.A and K.NBT.A: Topic 10 The Teen Numbers
 TIG pp. 1133-1256
 SRB pp. 281-306

Grade 1: Slide

• 1.OA.B and 1.OA.C: Topic 2 Addition and Subtraction Strategies to 20

TIG pp. 93-204 SRB pp. 37-82

 1.OA.C and 1.NBT.C: Topic 10 Adding and Subtracting Within 100

TIG pp. 1025-1168 SRB pp. 413-482

Grade 2: Slide

 2.NBT.A. and 2.NBT.B: Topic 11 Foundations for Multiplication

TIG pp. 1073-1208 SRB pp. 459-520

 2.OA.B and 2.NBT.B: Topic 9 Building Addition Fluency TIG pp. 899-988 SRB pp. 389-426

Grade 3: Slide

• **3.OA.A and 3.OA.B**: Topic 9 Understanding Division <u>TIG pp. 783-908</u>

SRB pp. 377-436

3.OA.C and 3.MD.C: Topic 7 Extending Area
 TIG pp. 587-682
 SRB pp. 279-324

Grade 4: Slide

4.NF.A and 4.NF.B: Topic 2 Fraction Equivalence and Comparisons

TIC no. 100 040

TIG pp. 129-242 SRB pp. 63-114

 4.OA.A and 4.NBT.B: Topic 10 Multi-Digit Division TIG pp. 925-1042 SRB pp. 425-486

Grade 5: Slide

• **5.NBT.A and 5.NBT.B**: Topic 7 Multiplying and Dividing with Decimals

<u>TIG pp. 603-690</u> SRB pp. 271-310

 5.NF.A and 5.NF.B: Topic 11 Adding and Subtracting Fractions and Mixed Numbers

<u>TIG pp. 983-1114</u> <u>SRB pp. 459-526</u>

not connected, but the separation is mathematically reasonable.

• 2.OA.A and 2.MD.A

It is not mathematically reasonable to connect representing and solving problems involving addition and subtraction and measuring and estimating lengths in standard units. Students solve problems with standard units in G3 (3.MD.A). Grade 2 is the first time students measure with standard units and it is important to give them an opportunity to develop this understanding before applying it to problem situations.

3.NF.A and 3.OA.B

It is not reasonable to connect developing understanding of fractions as numbers to understanding properties of multiplication and the relationship between multiplication because students make connections between multiplication and fractions in Grade 4.

• 3.NF.A and 3.OA.C

It is not reasonable to connect developing understanding of fractions as numbers to multiplying and dividing within 100 because students make connections between multiplication and division with fractions in Grades 4 and 5.

• 3.NF.A and 3.OA.D

It is not reasonable to connect developing understanding of fractions as numbers to solving problems involving the four operations because students connect solving problems to multiplication and division with fractions in Grades 4 and 5.

• 3.NF.A and 3.MD.C

It is not reasonable to connect developing understanding of fractions as numbers to concepts of area and relating area to multiplication and to addition because students solve problems involving area and fractions in Grade 4.

4.OA.A and 4.NF

It is not mathematically reasonable to connect using the four operations with whole numbers to extending fraction and decimal understanding because 4.OA.A limits all reasoning and problem-solving to whole-number contexts.

• 4.NBT.A and 4.NF

It is not reasonable to connect place value understanding for multi-digit whole numbers to any fraction or decimal concepts in Grade 4 because these clusters develop entirely separate number systems. While 4.NBT.A builds understanding of base-ten structure with whole numbers, 4.NF focuses on partitioning wholes into fractional units, comparing those units, and expressing them in decimal form, which are concepts that do not rely on or connect to whole-number place value until Grade 5.

4.NBT.B and 4.NF

It is not mathematically reasonable to connect performing operations with multi-digit whole numbers to any work with fractions or decimals in Grade 4. The computations in 4.NBT.B involve only whole numbers and do not overlap with the reasoning or strategies students use when composing, decomposing, or operating with fractions or decimals, which begin to connect meaningfully in Grade 5.

5.NF and 5.MD.C

It is not mathematically reasonable to connect operations with fractions to concepts of volume because 5.MD.C limits all reasoning to whole-number dimensions and unit cubes. Although both clusters involve multiplicative thinking, fractional dimensions or fractional volume are

not introduced until Grade 6, making such connections developmentally premature.

• 5.NBT and 5.NF.A

It is not reasonable to connect adding and subtracting fractions to place value understanding or operations with decimals because these clusters develop different understandings of number and computation. 5.NF.A focuses on composing and decomposing fractions with unlike denominators using equivalence, while 5.NBT focuses on extending the base-10 system to decimals and performing operations using place value reasoning, not common denominators.

1h Publisher Evidence Collection

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.

Related Resources	1h Evidence Guide	
Scoring Criteria		
2 points	1 point	0 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. 	 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. 	 No connections are made between content from future grades and grade-level work. AND No connections are made between content from future grades and grade-level work.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 1h, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 1h Evidence Slides.

These resources within ClearMath Elementary align to Indicator 1h with components for each grade level.

- Teacher's Implementation Guides
- Assessment Suite
- Assessment Guide
- Spaced Review

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

Examples of chapters/units and/or lessons where grade-level content is related to future learning.

Kindergarten

Topic 11 Introduction to 3-Dimensional Shapes In this topic, students review 2-dimensional shapes and are introduced to 3-dimensional shapes by describing and exploring their attributes through sorting and building. This prepares students to apply their understanding of attributes to create graphs of sorted objects in Grade 1.

TIG pp. 1257-1400

Topic 12 Extending Stories

In this topic, students explore addition and subtraction through word problems involving joining, separating, and decomposing quantities. This prepares students to build on

their understanding of composing and decomposing numbers to add and subtract within 20 in Grade 1.

TIG pp. 1401-1526

Grade 1

Topic 11 Using Addition and Subtraction Strategies In this topic, students add 2-digit numbers by breaking them into tens and ones and combining like units. This prepares students to fluently add and subtract within 100 in Grade 2.

IIG pp. 1171-1276

Topic 12 Comparing Routes

In this topic, students synthesize their understanding of measuring, adding, and comparing to analyze and create marble runs. This prepares students to measure length in standard units in Grade 2.

TIG pp. 1277-1360

Grade 2

Topic 6 Data Decisions at School

In this topic, students practice the four stages of statistical problem solving: posing questions, gathering data, displaying it in various graphs, and interpreting results. This prepares students to create scaled picture graphs, scaled bar graphs, and line plots with fractional measurements in Grade 3.

TIG pp. 605-682

Topic 13 Strategies to Add and Subtract Within 1,000 In this topic, students use concrete models, number lines, and place-value strategies to add and subtract within 1,000, strengthening their understanding of number structure. This prepares students to develop fluency with adding and subtracting within 1,000 in Grade 3 and master the standard algorithm in Grade 4.

TIG pp. 1301-1422

Grade 3

Topic 11 Time for Line Plots

In this topic, students create line plots by iterating fractional values on number lines, reinforcing conceptual understanding of unit fractions. In Grade 4, students create line plots to display measurement data including whole numbers, halves, fourths, and eighths.

TIG pp. 1051-1156

Topic 13 Classifying and Measuring 2-Dimensional Shapes In this topic, students explore the difference between perimeter and area and examine relationships between area and perimeter. In Grade 4, students apply the formulas for area and perimeter to solve real-world and mathematical problems.

TIG pp. 1233-1326

Grade 4

Topic 3 Introduction to Decimals

In this topic, students read, write, and plot decimal numbers to the hundredths place on the number line, applying place-value strategies to compare decimal quantities as they do with whole numbers. In Grade 5, students compare decimals to the thousandths place.

TIG pp. 243-336

Topic 5 Adding and Subtracting Fraction with Like Denominators In this topic, students explore strategies for adding and subtracting fractions with like denominators. In Grade 5, students apply their understanding and use a variety of strategies to add and subtract fractions with unlike denominators.

TIG pp. 427-542

Grade 5

Topic 1 Building to Volume

In this topic, students explore volume by packing prisms with unit cubes, realizing the number of cubes equals the volume. In Grade 6, students pack rectangular prisms using unit cubes with fractional side lengths.

TIG pp. 3-98

Topic 7 Multiplying and Dividing with Decimals
In this topic, students extend their strategies for multiplying
multi-digit whole numbers to multiply decimals to the hundredths
and build on this understanding by using grid models and whole
number strategies to divide decimal numbers. In Grade 6,
students develop fluency with the standard algorithm for division.
They divide multi-digit whole numbers and decimals.

TIG pp. 603-690

Examples of chapters/units and/or lessons where grade-level content is explicitly related to prior learning.

Kindergarten

Topic 1 Numbers to 5

In this topic, students learn that numbers represent quantities, that each object is counted once, and that the final number counted represents the total number of objects in a group.

Before Kindergarten, students may have learned to rote count to time an event, such as washing their hands, playing a game, or running from one location to another.

TIG pp. 3-90

Grade 1

Topic 1 Bar Graphs and Picture Graphs

Students learn that there are many ways to organize, represent, and display data by creating and interpreting bar graphs and picture graphs. In Kindergarten, students used sorting tables to classify data into given categories, count the number of objects in each category, and sort the categories by count.

TIG pp. 3-92

Topic 2 Addition and Subtraction Strategies to 20 Students investigate Cross Number Puzzles to compose numbers and determine unknown sums and addends within 20. In Kindergarten, students learned to think flexibly about quantities when they composed and decomposed them in different ways. TIG pp. 93-204

Grade 2

Topic 2 Place Value Through 999

In this topic, students build foundational skills in grouping by tens and ones using tools such as base-10 blocks. In Grade 1, students used base-10 blocks and drawings to represent 2-digit numbers with different models. They traded 10 ones for 1 ten and 1 ten for 10 ones to regroup numbers.

TIG pp. 137-258

Topic 4 Measuring Length

In this topic, students build an understanding of standard units by measuring lengths and learning to identify and choose appropriate units like inches, feet, and meters. This builds upon their work measuring lengths with nonstandard units in Grade 1. TIG pp. 391-488

Grade 3

Topic 1 Area and Arrays

In Grade 2, students organized equivalent sets into arrays to make counting more efficient. This laid the groundwork for understanding area and helped prepare students for future work with multiplication. In this Grade 3 topic, students count units in rectangular arrays, building a foundation for understanding multiplication and division.

TIG pp. 3-88

Topic 3 Scaled Data Displays

In this topic, students create scaled picture and bar graphs by assigning values to each unit and marking intervals on a number line. They analyze data to select appropriate scales, sometimes using half pictures, and practice skip counting to determine the number of objects in a category. This builds upon their learning from Grade 2 as they created and analyzed picture graphs and bar graphs with single-unit scales including up to 4 categories.

TIG pp. 173-248

Grade 4

Topic 2 Fraction Equivalence and Comparisons
In Grade 3, students related equivalent fractions to their location on a number line. They compared fractions, recognizing when they had the same numerators or denominators. In this Grade 4 topic, students deepen their understanding of fractions greater than 1 and mixed numbers by exploring equivalent fractions and using manipulatives to visualize equality. They then apply these

concepts to compare fractions, developing strategies with common denominators, common numerators, and benchmark quantities.

TIG pp. 129-242

Topic 4 Formalizing Whole Number Addition and Subtraction In this topic, students use partial sums and expanded form to understand the standard algorithm for addition and subtraction. This builds from students' work in Grade 3 as they used various strategies to fluently add and subtract within 1,000, developed strategies based on place value, and related addition and subtraction.

TIG pp. 339-426

Grade 5

Topic 3 Multiplying and Dividing Whole Numbers In Grade 4, students used various strategies to multiply whole numbers to the thousands place by a 1-digit whole number. They also used strategies including area models and vertical records to determine the product of two 2-digit numbers. In this Grade 5 topic, students use place value within area models and partial products to transition to the standard multiplication algorithm.

TIG pp. 207-334

Topic 5 Decimals to the Thousandths

In this topic, students extend place-value understanding to the thousandths, identifying patterns in place value names and using base-10 blocks to see that thousandths are $\frac{1}{10}$ the value of hundredths. They plot decimals on the number line and write and compare decimals to the thousandths using various forms. This builds upon their learning in Grade 4 as they wrote decimal numbers to the hundredths using numerals and number names. They plotted decimal numbers on a number line and used place value to compare them.

TIG pp. 439-524

2a Publisher Evidence Collection

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.

Related Resources

• 2a Evidence Guide

Scoring Criteria

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.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 2a, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 2a Evidence Slides.

- Kindergarten Indicator 2a Evidence Slides
- Grade 1 Indicator 2a Evidence Slides
- Grade 2 Indicator 2a Evidence Slides
- Grade 3 Indicator 2a Evidence Slides
- Grade 4 Indicator 2a Evidence Slides
- Grade 5 Indicator 2a Evidence Slides

These resources within ClearMath Elementary align to Indicator 2a with components for each grade level.

- Teacher's Implementation Guides
- Student Resource Books

Indicator 2a Guiding Question:

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

Examples of how the materials develop conceptual understanding throughout the grade.

Kindergarten

- Module 1, Topic 1, Lesson 3: Identifying the Number 3, Activate: Identifying 3
 TIG pp. 37-38
- Module 4, Topic 7, Lesson 5: Re-Engaging with Numbers Before and After on the Number Path, Activate: Completing the Number Path: Before and After TIG pp. 841-842

Grade 1

 Module 2, Topic 5, Lesson 1: Modeling Addition with Colored Rods, Explore 3: Using Colored Rods to Model Addition

TIG pp. 469-470

 Module 4, Topic 10, Lesson 1: Modeling Numbers to 99, Explore 2: Modeling Numbers with Base-10 Blocks TIG pp. 1044-1045

Grade 2

 Module 1, Topic 2, Lesson 3: Representing 3-Digit Numbers, Explore 3: Exploring the Value of Digits and Expanded Form

TIG pp. 175-176

 Module 5, Topic 13, Lesson 6: Using Addition to Subtract 3-Digit Numbers, Explore 1: Using Addition to Subtract TIG pp. 1360-1361

Grade 3

 Module 1, Topic 1, Lesson 9: Re-Engaging with Area, Activate: Quick Images

TIG pp. 81-82

 Module 3, Topic 9, Lesson 11: The Distributive Property of Division, Explore 2: Dividing Using Related Facts

TIG pp. 887-888

Grade 4

- Module 1, Topic 1, Lesson 3: Packaging Erasers in Groups of 10, Explore 1: Bigger Containers Have Arrived TIG pp. 38-39
- Module 4, Topic 10, Lesson 9: Exploring Remainders, Activate: Arranging 20 Cubes and Explore 1: Even Groups and Some More TIG pp. 1003-1004

Grade 5

- Module 2, Topic 3, Lesson 9: Partial Quotients, Explore 1: Recording Partial Quotients Vertically TIG pp. 294-295
- Module 5, Topic 12, Lesson 4: Constructing and Deconstructing Volume, Explore 1: Construct to Measure and Explore 2: Deconstruct to Measure TIG pp. 1160-1163

Examples of conceptual problems and discussion questions, including brief conceptual problems with low computational difficulty.

Kindergarten

 Module 5, Topic 12, Lesson 3: Taking Away from Numbers Within 10, Explore 2: Related Models and Equations TIG pp. 1439-1440

Grade 1

 Module 2, Topic 4, Lesson 1: Modeling 10 and Some More, Explore 3: Adding Ones to a 10
 TIG pp. 337-338

Grade 2

 Module 4, Topic 11, Lesson 2: Arrays of Square Tiles, Activate: Counting Hidden Dots
 TIG pp. 1097-1098

Grade 3

 Module 1, Topic 1, Lesson 2: Working with Arrays, Explore 1: Counting Square Tiles
 TIG pp. 26-27

Grade 4

 Module 1, Topic 3, Lesson 1: Representing Decimals with Base-10 Blocks, Activate: Building Decimals and Explore 1: Numbers with Decimals TIG pp. 257-259

Grade 5

 Module 4, Topic 11, Lesson 1: Using Bar Models to Add Fractions, Explore 1: Adding Fractions with Colored Rods TIG pp. 998-999 Examples of opportunities for students to engage with teacher support and/or guidance while developing conceptual understanding.

Kindergarten

 Module 1, Topic 2, Lesson 1: Identifying the Number 6, Explore 1: Showing 6 Fingers
 TIG p. 108

Grade 1

 Module 1, Topic 2, Lesson 5: Investigating Unknown Addends with Models, Explore 1: Exploring Strategies for Determining Unknown Addends TIG pp. 142-143

Grade 2

 Module 1, Topic 1, Lesson 4: Even and Odd Numbers, Activate: Investigating Even and Odd Numbers and Explore 1: Adding and Subtracting Even and Odd Numbers

TIG pp. 41-43

Grade 3

 Module 2, Topic 5, Lesson 4: Pattern Blocks, Explore 2: Exploring Parts and Wholes TIG pp. 437-438

Grade 4

 Module 2, Topic 5, Lesson 1: Modeling Addition of Fractions, Explore 1: Fraction Addition with Colored Rods TIG pp. 442-443

Grade 5

 Module 4, Topic 9, Lesson 1: Dividing 1 Whole into Parts, Activate: Comic Strips and Explore 1: Folding Fractions <u>TIG pp. 779-781</u>

Examples of opportunities for students to engage independently with concrete and semi-concrete representations while developing conceptual understanding.

Kindergarten

 Module 5, Topic 10, Lesson 1: Composing 10, Explore 1: Fingers Up, Fingers Down
 TIG p. 1150

Grade 1

 Module 1, Topic 2, Lesson 9: Addition Stories, Explore 1: Understanding Addition Stories
 TIG pp. 174-175

Grade 2

 Module 2, Topic 5, Lesson 1: From a Ruler to a Number Line, Explore 2: Adding and Subtracting on the Number Line

TIG p. 507

 Module 1, Topic 1, Lesson 5: Tiling Rectangles, Explore 1: How Many Squares? and Explore 2: Tiling to Determine Areas

TIG pp. 50-52

Grade 4

 Module 1, Topic 2, Lesson 4: Investigating Equal Fractions, Explore 1: Creating Equal Fractions
 TIG pp. 168-169

Grade 5

 Module 1, Topic 1, Lesson 3: Constructing Figures in Layers, Explore 2: Determining Volumes of 3-Dimensional Figures TIG pp. 39-40

Examples of opportunities for students to engage *independently* in verbalization and/or writing while developing conceptual understanding.

Kindergarten

 Module 1, Topic 2, Lesson 1: Identifying the Numbers 6, Reflect: Reflect and Summarize
 TIG p. 113

Grade 1

 Module 2, Topic 4, Lesson 5: Modeling Adding and Subtracting 10, Reflect: Reflect and Summarize TIG p. 375

Grade 2

 Module 1, Topic 3, Lesson 2: Doubling 2-Digit Quantities, Reflect: Reflect and Summarize TIG p. 287

Grade 3

 Module 1, Topic 1, Lesson 4: Connecting Area and Arrays, Reflect: Reflect and Summarize TIG p. 45

Grade 4

 Module 1, Topic 2, Lesson 4: Investigating Equal Fractions, Reflect: Wall of Fractions
 TIG p. 171

Grade 5

 Module 5, Topic 12, Lesson 4: Constructing and Deconstructing Volume, Reflect: Reflect and Summarize <u>TIG p. 1163</u>

Examples of how the materials develop clusters and/or standards that specifically relate to conceptual understanding.

These resources include examples of specific lessons and/or activities that support student development in clusters and/or standards that specifically relate to conceptual understanding.

- Indicator 2a CCSS Citations
- <u>ClearMath Elementary Dot Matrices</u>

2b Publisher Evidence Collection

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.

Related Resources

• 2b Evidence Guide

Scoring Criteria

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.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 2b, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 2b Evidence Slides.

- Kindergarten Indicator 2b Evidence Slide
- Grade 1 Indicator 2b Evidence Slide
- Grade 2 Indicator 2b Evidence Slides
- Grade 3 Indicator 2b Evidence Slides
- Grade 4 Indicator 2b Evidence Slide
- Grade 5 Indicator 2b Evidence Slide

These resources within ClearMath Elementary align to Indicator 2b with components for each grade level.

- Teacher's Implementation Guides
- Student Resource Books

Indicator 2b Guiding Question:

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?

TIG pp. 1200-1202, 1205

Evidence Collection

Examples of how the materials develop procedural skill and fluency throughout the grade.

Kindergarten

- Module 3, Topic 5, Lesson 5: Re-Engaging with Adding Within 10, Center 2: Number Card Addition Within 10 TIG pp. 594-596
- Module 5, Topic 10, Lesson 6: What Makes Numbers Within 5 in a Ten Frame?, Explore 1: Subtracting on a Ten Frame, Explore 2: Addition and Subtraction in Ten Frames, and Reflect: Reflect and Summarize

Grade 1

- Module 1, Topic 2, Lesson 4: Re-Engaging with Early Addition and Subtraction, Center 1: Roll a Cross Number Puzzle with Objects, Center 2: Roll a Cross Number Puzzle with Numbers, and Center 3: Cross Number Puzzler TIG pp. 134-136
- Module 4, Topic 9, Lesson 4: Adding Doubles and Near Doubles, Explore 1: Doubles Cart Sort and Explore 2: Using Doubles to Add TIG pp. 972-974

- Module 1, Topic 1, Lesson 11: Subtracting Numbers by Using 10, Explore 1: Decomposing to Subtract and Explore 2: Landing on 10 TIG pp. 102-104
- Module 4, Topic 10, Lesson 2: Breaking Apart to Take Away, Explore 1: Subtracting 36 in Pieces and Explore 2: Demonstrating Take Away TIG pp. 1014-1017

Grade 3

- Module 2, Topic 4,Lesson 2: Addition Strategies, Explore 1: Building Numbers for Addition, Explore 2: Expanded Form, and Explore 3: Decomposing Numbers to Add TIG pp. 273-276
- Module 3, Topic 9, Lesson 6: Multiplication and Division Fact Families, Explore 1: Determining Fact Families and Explore 2: Writing Fact Families TIG pp. 840-842

Grade 4

- Module 2, Topic 4, Lesson 2: Adding Multi-Digit Numbers, Explore 2: Comparing Addition Strategies and Explore 3: Using a Common Addition Algorithm TIG pp. 365-367
- Module 3, Topic 7, Lesson 6: Exploring Vertical Records, Explore 1: Multiplying by 1-Digit Using a Vertical Record TIG pp. 712-713

Grade 5

- Module 2, Topic 3, Lesson 2: Multiplying Multi-Digit Numbers, Explore 2: Multiplying with Area Models and Cross Number Puzzles
 TIG pp. 233-234
- Module 5, Topic 12, Lesson 1: Volume with Greater Numbers, Explore 1: Visualizing the Associative Property of Multiplication TIG pp. 1133-1134

Examples of opportunities for students to progress toward procedural skill and fluency interwoven with development conceptual understanding.

Kindergarten

 Module 3, Topic 5, Lesson 3: Putting Together Within 5, Explore 1: Modeling Part-Part-Whole TIG pp. 568-570

Grade 1

 Module 2, Topic 5, Lesson 1: Modeling Addition with Colored Rods, Explore 1: Coding Colored Rods, Explore 2: Adding with Colored Rods, and Explore 3: Using Colored Rods to Model Addition

TIG pp. 466-470

Grade 2

 Module 1, Topic 3, Lesson 11: Using Base-10 Blocks to Subtract, Activate: Out to Dinner, Explore 1: Paying for Dinner, and Explore 2: Take Away Puzzles TIG pp. 363-366

 Module 3, Topic 7, Lesson 1: Areas of Rectangular Arrays, Activate: Array Puzzle and Explore 1: Combining Arrays in a Larger Grid

TIG pp. 601-603

Grade 4

 Module 2, Topic 4, Lesson 2: Adding Multi-Digit Numbers, Activate: Introducing Cross Number Puzzles, Explore 1: Addition with Partial Sums, and Explore 2: Comparing Addition Strategies

TIG pp. 363-367

Grade 5

 Module 2, Topic 3, Lesson 2: Multiplying Multi-Digit Numbers, Explore 3: Multiplying with Area Models and Vertical Records TIG pp. 234-235

Examples of opportunities for students to develop procedural skill and fluency with teacher support and/or guidance.

Kindergarten

 Module 4, Topic 9, Lesson 6: Jumps Within 5, Explore 1: Breaking and Jumping TIG pp. 1094-1095

Grade 1

 Module 4, Topic 9, Lesson 1: Combining Triangular Numbers, Explore 1: Making Equations with Triangular Numbers

TIG pp. 948-949

Grade 2

 Module 1, Topic 1, Lesson 7: Doubles Facts, Activate: Adding 5 and Some More

TIG pp. 65-66

Grade 3

 Module 3, Topic 9, Lesson 2: Unknown Side Lengths in Arrays and Area Models, Explore 1: Possible Factors TIG pp. 806-807

Grade 4

 Module 2, Topic 4, Lesson 5: Strategies for Subtracting Multi-Digit Numbers with Regrouping, Activate: Subtraction Models and Explore 1: Making Sense of the Standard Algorithm

TIG pp. 389-391

Grade 5

 Module 2, Topic 3, Lesson 4: Multiplying Using the Standard Algorithm, Explore 1: Multiplying Multi-Digit Numbers TIG pp. 247-249

Examples of opportunities for
students to independently
demonstrate procedural skill
and fluency.

Kindergarten

 Module 3, Topic 6, Lesson 7: Representing Addition and Subtraction Within 5, Reflect: Reflect and Summarize TIG p. 758

Grade 1

 Module 4, Topic 9, Lesson 6: Subtracting with Models, Explore 2: Subtracting in a Number Bond Model and Reflect: Reflect and Summarize TIG pp. 991-992

Grade 2

 Module 4, Topic 10, Lesson 1: Using Addition to Subtract, Explore 3: Adding Up and Reflect: What's the Difference? TIG pp. 1008-1009

Grade 3

 Module 2, Topic 4, Lesson 4: Relating Addition and Subtraction, Explore 1: Flexibly Adding and Subtracting TIG pp. 292-293

Grade 4

 Module 2, Topic 4, Lesson 6: Multi-Digit Subtraction with Regrouping, Explore 2: Using Subtraction to Solve Problems and Reflect: Reflect and Summarize TIG pp. 399-400

Grade 5

 Module 2, Topic 3, Lesson 4: Multiplying Using the Standard Algorithm, Reflect: Picking Cards
 TIG p. 251

Examples of sections within the materials that are specifically designed or designated for procedural skill and fluency.

ClearMath Elementary does not have a separate standalone fluency component in the instructional materials. Procedural skill and fluency are embedded throughout core instruction.

Examples of how the materials develop clusters and/or standards that specifically relate to procedural skill and fluency.

These resources include examples of specific lessons and/or activities that support student development in clusters and/or standards that specifically relate to procedural skill and fluency.

- Indicator 2b CCSS Citations
- ClearMath Elementary Dot Matrices

2c Evidence Collection

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.

Related Resources

• 2c Evidence Guide

Scoring Criteria

2 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.

1 point

 Materials do not include multiple routine and non-routine applications of the mathematics throughout the grade level.

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

0 points

 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.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 2c, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 2c Evidence Slides.

- Kindergarten Indicator 2c Evidence Slides
- Grade 1 Indicator 2c Evidence Slides

- Grade 2 Indicator 2c Evidence Slides
- Grade 3 Indicator 2c Evidence Slides
- Grade 4 Indicator 2c Evidence Slides
- Grade 5 Indicator 2c Evidence Slides

These resources within ClearMath Elementary align to Indicator 2c with components for each grade level.

- Teacher's Implementation Guides
- Student Resource Books
- Math in Action Centers
- Cross-Curricular Activities

Indicator 2c Guiding Question:

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

Examples of how the materials develop application throughout the grade.

Kindergarten

- Module 3, Topic 5, Lesson 1: Joining Within 5, Activate: Worms in the Dirt and Explore 1: Act It Out! TIG pp. 543-546
- Module 5, Topic 12, Lesson 7: Modeling Story Problems, Explore 1: Story Problems at the Farm TIG pp. 1478-1479

Grade 1

 Module 1, Topic 3, Lesson 10: Understanding Number Stories: Put Together Addends Unknown, Activate: How Many Fish Now?, Explore 1: Story Problem Practice, and Explore 2: Write-Solve-Record

TIG pp. 301-305

 Module 4, Topic 10, Lesson 13: Understanding Number Stories: Compare Problems (Lesser Unknown), Explore 1: Modeling Compare Problems and Explore 2: Sorting and Solving Number Stories

TIG pp. 1150-1153

Grade 2

 Module 2, Topic 4, Lesson 9: The Long Jump, Explore 2: Jumping Data TIG pp. 477-478 Module 5, Topic 13, Lesson 11: Let's Plan a Trip, Explore 1: Planning Trips to National Parks
 TIG p. 1402

Grade 3

- Module 1, Topic 1, Lesson 8: Designing a Farm, Explore 1: Designing Your Farm and Reflect: Measuring a Farm TIG pp. 76-78
- Module 5, Topic 14, Lesson 6: Constructing a Compost Bin, Explore 1: Building a Compost Bin and Explore 2: Materials for the Compost Bin TIG pp. 1388-1390

Grade 4

- Module 1, Topic 2, Lesson 11: Developing a Garden, Explore 1: Designing Your Own Garden and Explore 2: Sharing Our Gardens TIG pp. 228-230
- Module 5, Topic 11, Lesson 9: Urban Utopia, Explore 1: Create Your Own City and Explore 2: Walking Around Town

TIG pp. 1124-1126

Grade 5

- Module 2, Topic 4, Lesson 10: Distance from Earth, Explore
 1: How Far from Earth? and Explore 2: Sharing Our Galaxy
 TIG pp. 424-425
- Module 5, Topic 12, Lesson 6: Something Fishy, Explore 1: Designing a Stingray Habitat and Explore 2: Analyzing Designs TIG pp. 1178-1179

Examples of where the materials provide application problems. Include examples where students solve problems in a variety of contexts and make their own assumptions or simplifications in order to model the contexts mathematically.

Please refer to earlier examples as well as the examples under "Examples of opportunities for students to independently demonstrate application through non-routine problems."

Examples of opportunities for students to *independently* demonstrate application through *routine* problems.

Kindergarten

 Module 5, Topic 12, Lesson 7: Modeling Story Problems, Explore 2: Show the Story in 2 Ways, Reflect: Reflect and Summarize

TIG pp. 1480-1481, 1484

 Module 3, Topic 6, Lesson 11: Understanding Number Stories: Separate Start Unknown, Explore 1: Sorting Separate Stories and Explore 2: Writing Equations to Solve Story Problems

TIG pp. 658-661

Grade 2

 Module 1, Topic 1, Lesson 13: Action Word Problems Within 20, Explore 2: Tell Me a Story and Reflect: Sharing Snacks TIG pp. 123-124

Grade 3

Module 1, Topic 2, Lesson 7: Monster Math, Explore 1:
 Animal Problem Solving, Explore 2: Creating Monsters, and Explore 3: Problem Solving with Equal Groups
 TIG pp. 158-160

Grade 4

 Module 4, Topic 9, Lesson 3: Operations with Time, Money, Length, and Distance, Explore 1: Measurement Story Problems

TIG pp. 870-871

Grade 5

 Module 5, Topic 13, Lesson 6: Graphing on the Coordinate Plane, Explore 1: Interpreting Ordered Pairs and Explore 2: Graphing Ordered Pairs TIG pp. 1248-1250

Examples of opportunities for students to *independently* demonstrate application through *non-routine* problems.

Kindergarten

 Module 5, Topic 12, Lesson 9: Creating and Solving Addition and Subtraction Story Problems, Activate: Story Problems on the Savanna and Explore 1: What's the Story? TIG pp. 1499-1501

Grade 1

 Module 5, Topic 12, Lesson 6: Measuring Routes and Collecting Data, Explore 1: Measuring Marble Runs TIG pp. 1338-1339

Grade 2

 Module 5, Topic 13, Lesson 12: Where Are We Going?, Explore 1: Best Road Trip Ever!
 TIG pp. 1410-1411

Grade 3

 Module 3, Topic 7, Lesson 9: Designing an Animal Shelter, Explore 1: Designing Your Shelter and Explore 2: Determining Areas in Your Shelter TIG pp. 668-671

 Module 3, Topic 8, Lesson 6: Hungry Pets, Explore 1: Planning for Pets and Explore 2: Pet Store Line Plots TIG pp. 822-823

Grade 5

Module 2, Topic 3, Lesson 12: Forest for the Trees, Explore
 2: Planning for Planting
 TIG pp. 321-322

Examples of sections within the materials that are specifically designed or designated for application.

In Grade 1, Number Stories lessons are the culminating Concept Lesson of most topics. In these lessons, students encounter a new addition and subtraction problem type, increasing in complexity throughout the course. They solve problems involving the types they have already learned, supporting flexible problem-solving skills.

In Grades 2-5, Concept Playgrounds are the culminating Concept Lesson of each topic, extending the problem-solving that students have encountered throughout the topic. They engage in open-ended tasks requiring the synthesis of concepts and mathematical practices. Analogous to a playground, these lessons provide structured freedom, allowing students to play with and apply mathematics within defined parameters.

Math in Action Centers offer additional opportunities for students to connect mathematics to their lived experiences. Designed for flexible use, teachers can use them as additional centers or to replace a center included in Re-Engagement Lessons or during a student choice time throughout the day.

Cross-Curricular Activities integrate math with other subject areas, helping students make meaningful connections beyond the math classroom. Teachers can implement them during Re-Engagement Lessons or as part of the related subject's scheduled time.

Examples of how the materials develop clusters and/or standards that specifically relate to application.

These resources include examples of specific lessons and/or activities that support student development in clusters and/or standards that specifically relate to application.

- Indicator 2c CCSS Citations
- ClearMath Elementary Dot Matrices

2d Publisher Evidence Collection

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.

Related Resources

• 2d Evidence Guide

Scoring Criteria

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.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 2d, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 2d Evidence Slides.

- <u>Kindergarten Indicator 2d Evidence Slide</u>
- Grade 1 Indicator 2d Evidence Slide
- Grade 2 Indicator 2d Evidence Slide
- Grade 3 Indicator 2d Evidence Slide
- Grade 4 Indicator 2d Evidence Slide
- Grade 5 Indicator 2d Evidence Slide

These resources within ClearMath Elementary align to Indicator 2d with components for each grade level.

- Teacher's Implementation Guides
- Student Resource Books

Indicator 2d Guiding Question:

Do the instructional materials balance the three aspects of rigor?

Note: Evidence should be different than the evidence collected for 2a, 2b, and 2c.

Evidence Collection

Examples of where multiple aspects of rigor are engaged in simultaneously throughout the grade.

These grade-level examples highlight activities where students engage in multiple aspects of rigor simultaneously.

Kindergarten

- Module 1, Topic 2, Lesson 6: Re-Engaging with Identifying the Numbers 1-9, Center 3: Domino Express Trains TIG p. 160
- Module 3, Topic 5, Lesson 1: Joining Within 5, Explore 2: Tell a Joining Story TIG pp. 546-547
- Module 3, Topic 5, Lesson 3: Putting Together Within 5, Explore 2: Number Card Addition Within 5 TIG pp. 570-571
- Module 5, Topic 11, Lesson 11: Equations Within 5, Explore
 1: Determining the Sum
 TIG pp. 1374-1375
- Module 5, Topic 12, Lesson 1: Addition Stories Within 10, Explore 1: Number Stories from Images
 TIG pp. 1418-1419
- Module 5, Topic 12, Lesson 4: Number Within 5 in Stories, Numbers, and Pictures, Explore 2: Rolling Number Bonds TIG pp. 1449-1450

Grade 1

- Module 1, Topic 2, Lesson 1: Modeling Addition and Subtraction, Reflect: Reflect and Summarize TIG p. 111
- Module 1, Topic 2, Lesson 9: Addition Stories, Explore 2: Solving Addition Story Problems TIG pp. 175-176
- Module 2, Topic 4, Lesson 10: Using the Number Line to Solve Problems, Explore 2: Determining the Starting Number and Explore 3: Completing Addition Equations and Stories

TIG pp. 418-421

 Module 4, Topic 10, Lesson 9: Adding and Subtracting on the Number Line Hotel, Explore 2: Moving On Up TIG pp. 1112-1113

 Module 1, Topic 1, Lesson 3: Developing Fluency Through Fact Families, Explore 2: Using Fact Families to Solve Word Problems

TIG pp. 35-36

- Module 2, Topic 5, Lesson 6: Re-Engaging with an Open Number Line, Center 2: Adding on an Open Number Line TIG pp. 556-557
- Module 5, Topic 12, Lesson 5: Making Sums of 100, Explore
 1: Investigating Sums of 100 Cents and Explore 3:
 Identifying Pairs of 100

<u>TIG pp. 1266-1270</u>

 Module 5, Topic 12, Lesson 6: Making Change, Explore 2: Let's Go Shopping!

TIG pp. 1279-1280

 Module 5, Topic 13, Lesson 10: Mystery Island, Explore 1: Mystery Island Excursions

TIG pp. 1394-1395

Grade 3

- Module 1, Topic 2, Lesson 2: Equal Groups, Explore 1: What's the Score? and Explore 2: How Many Pencils? TIG pp. 114-115
- Module 1, Topic 2, Lesson 8: Re-Engaging with Multiplication Models, Center 2: Partitioning a 9-by-9 Array TIG p. 168
- Module 2, Topic 4, Lesson 13: What Is the Temperature?, Explore 2: Reasonable and Unreasonable Answers TIG pp. 379-381
- Module 3, Topic 8, Lesson 8: Monster Math with my BFF, Explore 2: Creating Monsters
 TIG pp. 769-770
- Module 5, Topic 14, Lesson 7: Take Action!, Explore 3: Area Challenge

TIG pp. 1399-1400

- Module 2, Topic 4, Lesson 8: Spending Spree, Explore 1: Home Makeover and Explore 2: Spending Share TIG pp. 414-416
- Module 2, Topic 5, Lesson 1: Modeling Addition of Fractions, Explore 2: Bar Models to Add Fractions and Reflect: Reflect and Summarize TIG pp. 444-445
- Module 2, Topic 5, Lesson 11: Stops Along the Way, Explore 1: Design Your Own Obstacle Race and Explore 2: Relating Races

TIG pp. 528-530

- Module 4, Topic 10, Lesson 2: Connecting Multiplication and Division, Explore 2: Multiplication and Division Stories and Reflect: Reflect and Summarize TIG pp. 949-951
- Module 5, Topic 11, Lesson 8: Unknown Angle Measures, Explore 2: Solving for an Unknown Angle Measure TIG pp. 1117-1118

Grade 5

Module 1, Topic 1, Lesson 8: Recess Resources, Explore 1: Planning for Play and Explore 2: Analyzing Design **Proposals**

TIG pp. 84-86

- Module 3, Topic 6, Lesson 5: Subtracting Decimals, Explore 3: Subtracting to Solve Problems TIG pp. 576-577
- Module 4, Topic 9, Lesson 2: Dividing More than 1 Whole into Parts, Activate: Sharing Quesadillas and Explore 1: Division as Sharing TIG pp. 787-789
- Module 4, Topic 11, Lesson 2: Using Bar Models to Subtract Fractions, Explore 2: Subtracting Fractions with Bar Models and Reflect: Reflect and Summarize TIG pp. 1009-1011
- Module 4, Topic 11, Lesson 13: Ocean Investigations, **Explore: Tagging Sharks** TIG pp. 1100-1102

Examples of how the materials balance the three aspects of rigor.

Rigor in mathematics is the balanced integration of conceptual understanding, procedural fluency, and real-world applications. This approach ensures students understand the why, master the how, and apply their learning in diverse contexts. ClearMath Elementary develops students' conceptual understanding, builds procedural fluency, and provides opportunities for engaging, real-world applications, ensuring a balanced approach to mathematical learning. These connections can occur across modules, across topics, and within lessons. Specific examples that illustrate how the activities in ClearMath Elementary balance all three aspects of rigor are highlighted in the Emphasizing Focus, Coherence, and Balance section of the Teacher's Implementation Guide Overview.

For a Grade 2 example:

 Teacher's Implementation Guide Overview, Emphasizing Focus, Coherence, and Balance <u>TIG pp. TIGO 71-TIGO 73</u>

2e Publisher Evidence Collection

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.

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Related Resources	2e Evidence Guide
Scoring Criteria	
1 points	0 point
There is intentional development of MP1 to	There is no intentional development of MP1 to
meet its full intent in connection to	meet its full intent in connection to grade-level
grade-level content.	content.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 2e, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 2e Evidence Slides.

These resources within ClearMath Elementary align to Indicator 2e with components for each grade level.

- Teacher's Implementation Guides
- Student Resource Books
- Introductory Lesson: Let the Games Begin

These programmatic resources within ClearMath Elementary align to Indicator 2e.

• Instructional Strategies Handbook

Indicator 2e Guiding Question:

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

Examples of intentional development of MP1 to meet its

SMP 1 is evident every day in every lesson as students engage

full intent in connection to grade-level content.

in activities, solve problems, and analyze their solutions. As a result, the only lesson that calls out this particular Habit of Mind is the introductory lesson, Let the Games Begin.

In Grade 1, Number Stories lessons are the culminating Concept Lesson of most topics. In these lessons, students encounter a new addition and subtraction problem type, increasing in complexity throughout the course. They solve problems involving the types they have already learned, supporting flexible problem-solving skills.

In Grades 2-5, Concept Playgrounds are the culminating Concept Lesson of each topic, extending the problem-solving that students have encountered throughout the topic. They engage in open-ended tasks requiring the synthesis of concepts and mathematical practices. Analogous to a playground, these lessons provide structured freedom, allowing students to play with and apply mathematics within defined parameters.

The Mindset Reflection that concludes each Re-Engagement Lesson encourages students to reflect on the learning goals and Habits of Mind (SMPs) they have engaged with in the topic. To view which Habits of Mind students reflect on in each Re-Engagement Lesson throughout the course, refer to the Habits of Mind table in the Assessment Guide for each grade.

These specific activities highlight intentional development of MP1 to meet its full intent in connection to grade-level content:

All Grades

 Let the Games Begin! Introductory Lesson TIG p. TIGO 97

Kindergarten

- Module 2, Topic 4, Lesson 9: Building and Comparing, Explore 2: Matching Patterns
 TIG pp. 469-470
- Module 4, Topic 7, Lesson 6: Greater Than, Less Than, and Equal To with Quantities, Explore 2: Comparing Quantities TIG pp. 853-854

Grade 1

 Module 1, Topic 2, Lesson 6: Unknown Addends with Cross Number Puzzles, Explore 2: Solving Puzzles in Pairs TIG p. 151 Module 4, Topic 9, Lesson 1: Triangular Numbers, Explore 2: Using Triangle Cards to Make Numbers TIG pp. 950-951

Grade 2

- Module 3, Topic 7, Lesson 11: Geoblock Architecture, Explore 2: Geoblock Architecture Puzzles TIG p. 791
- Module 5, Topic 11, Lesson 4: Designing a Town, Activate: What Is In a Town? and Explore 1: Time to Design TIG pp. 1113-1115

Grade 3

- Module 3, Topic 7, Lesson 9: Designing an Animal Shelter, Explore 1: Designing Your Shelter and Explore 2: Determining Areas in Your Shelter TIG pp. 668-671
- Module 4, Topic 11, Lesson 10: Our Reading Data, Explore
 1: Minutes to Quarter Hours and Explore 2: Data Chart to
 Line Plot

Grade 4

TIG pp. 1142-1144

- Module 1, Topic 2, Lesson 11: Developing a Garden, Explore 1: Designing Your Own Garden and Explore 2: Sharing Our Gardens TIG pp. 228-230
- Module 5, Topic 13, Lesson 3: Multi-Step Problems Involving Perimeter and Area, Explore 1: Classroom Exploration <u>TIG pp. 1260-1261</u>

Grade 5

- Module 2, Topic 3, Lesson 12: Forest for the Trees, Explore
 1: Timber Troubles and Explore 2: Planning for Planting
 TIG pp. 320-322
- Module 4, Topic 11, Lesson 13: Ocean Investigations, Explore: Tagging Sharks TIG pp. 1100-1102

Examples of guidance for teachers to engage students in MP1.

Detailed lesson facilitation notes in the Teacher's Implementation Guide give teachers everything they need to nurture student development and engagement in the Standards for Mathematical Practice for each activity.

The Instructional Strategies Handbook describes the instructional strategies and math language routines used within the ClearMath Elementary Product. Each description includes where to identify the strategy, the research behind the strategy, an

example, and implementation support. Instructional strategies provide teachers with pedagogical moves they can use to support the needs of the diverse learners in their classroom. These strategies are research-based to maximize the outcomes of the learning experiences.

• <u>Instructional Strategies Handbook</u>

2f Publisher Evidence Collection

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.	

Related Resources

2f Evidence Guide

Scoring Criteria

1 points

 There is intentional development of MP2 to meet its full intent in connection to grade-level content.

0 point

 There is no intentional development of MP2 to meet its full intent in connection to grade-level content.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 2f, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 2f Evidence Slides.

These resources within ClearMath Elementary align to Indicator 2f with components for each grade level.

- Teacher's Implementation Guides
- Student Resource Books

These programmatic resources within ClearMath Elementary align to Indicator 2f.

Instructional Strategies Handbook

Indicator 2f Guiding Question:

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

Examples of intentional development of MP2 to meet its

Each Explore activity intentionally develops a singular Standard for Mathematical Practice or pair of Standards for Mathematical

full intent in connection to grade-level content.

Practice to support students as they develop mathematical habits of minds. The Habits of Mind (SMPs) for each Explore activity are included at the activity level in both the Teacher's Implementation Guide and the Student Resource Book for each grade.

The Mindset Reflection that concludes each Re-Engagement Lesson encourages students to reflect on the learning goals and Habits of Mind they have engaged with in the topic. To view which Habits of Mind students reflect on in each Re-Engagement Lesson throughout the course, refer to the Habits of Mind table in the Assessment Guide for each grade.

These specific activities highlight intentional development of MP2 to meet its full intent in connection to grade-level content:

Kindergarten

- Module 1, Topic 2, Lesson 1: Identifying the Number 6, Activate: Identifying 6 and Explore 1: Showing 6 Fingers TIG pp. 107-108
- Module 4, Topic 7, Lesson 7: Jumping on the Number Path to Compare, Explore 1: Connecting Jumps to Comparison Words

TIG pp. 862-863

Grade 1

 Module 1, Topic 1, Lesson 8: Data Decisions, Activate: Deciding What Data to Collect, Explore 1: Deciding How to Display the Data, and Explore 2: Asking and Answering Questions About the Data

TIG pp. 77-80

Module 2, Topic 5, Lesson 6: Making Fact Families, Explore
 2: Relating Addition and Subtraction

TIG pp. 513-514

Grade 2

- Module 2, Topic 5, Lesson 5: Adding on an Open Number Line, Activate: With a Little Help from My Friends TIG pp. 543-544
- Module 4, Topic 10, Lesson 4: Comparing Mathematical Expressions, Explore 3: Comparing Expressions Within 100 and Reflect: Reflect and Summarize TIG pp. 1039-1041

- Module 2, Topic 4, Lesson 8: Rounding and Estimating with Addition and Subtraction, Explore 1: Estimating Sums and Differences in Real-World Problems TIG pp. 330-331
- Module 3, Topic 8, Lesson 8: Monster Math with my BFF, Explore 1: Animal Problem Solving and Explore 2: Creating Monsters

TIG pp. 768-770

Grade 4

- Module 2, Topic 4, Lesson 8: Spending Spree, Explore 1: Home Makeover and Explore 2: Spending Share TIG pp. 414-416
- Module 4, Topic 9, Lesson 3: Operations with Time, Money, Length, and Distance, Explore 1: Measurement Story Problems

TIG pp. 870-871

Grade 5

- Module 2, Topic 5, Lesson 6: Decimal Benchmarks, Explore
 1: Placing a Decimal on the Number Line and Explore 2:
 Guess My Number: Thousandths
 - TIG pp. 496-498
- Module 4, Topic 11, Lesson 5: Problem Solving with Sums and Differences, Explore 1: A Story of Sorts and Explore 2: What's the Story?

TIG pp. 1034-1036

Examples of guidance for teachers to engage students in MP2.

Detailed lesson facilitation notes in the Teacher's Implementation Guide provide teachers with guidance, purposeful questions, embedded supports, and teacher moves to nurture student development and engagement in the Standards for Mathematical Practice for each activity.

The Instructional Strategies Handbook describes the instructional strategies and math language routines used within the ClearMath Elementary Product. Each description includes where to identify the strategy, the research behind the strategy, an example, and implementation support. Instructional strategies provide teachers with pedagogical moves they can use to support the needs of the diverse learners in their classroom. These strategies are research-based to maximize the outcomes of the learning experiences.

• <u>Instructional Strategies Handbook</u>

2g Publisher Evidence Collection

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.

Related Resources

• 2g Evidence Guide

Scoring Criteria

1 points

 There is intentional development of MP3 to meet its full intent in connection to grade-level content

0 point

 There is no intentional development of MP3 to meet its full intent in connection to grade-level content.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 2g, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 2g Evidence Slides.

These resources within ClearMath Elementary align to Indicator 2g with components for each grade level.

- Teacher's Implementation Guides
- Student Resource Books

These programmatic resources within ClearMath Elementary align to Indicator 2g.

Instructional Strategies Handbook

Indicator 2g Guiding Question:

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

Examples of intentional development of MP3 to meet its full intent in connection to

Each Explore activity intentionally develops a singular Standard for Mathematical Practice or pair of Standards for Mathematical Practice to support students as they develop mathematical

grade-level content.

habits of minds. The Habits of Mind (SMPs) for each Explore activity are included at the activity level in both the Teacher's Implementation Guide and the Student Resource Book for each grade.

The Mindset Reflection that concludes each Re-Engagement Lesson encourages students to reflect on the learning goals and Habits of Mind (SMPs) they have engaged with in the topic. To view which Habits of Mind students reflect on in each Re-Engagement Lesson throughout the course, refer to the Habits of Mind table in the Assessment Guide for each grade.

These specific activities highlight intentional development of MP3 to meet its full intent in connection to grade-level content:

Kindergarten

- Module 2, Topic 3, Lesson 2: 1 More, 1 Less, Explore 1: Showing 1 More and 1 Less
 TIG pp. 242-243
- Module 4, Topic 9, Lesson 9: Re-Engaging with the Number Trail, Center 2: What's My Number?
 TIG pp. 1125-1126

Grade 1

- Module 1, Topic 2, Lesson 9: Addition Stories, Explore 2: Solving Addition Story Problems TIG pp. 175-176
- Module 2, Topic 4, Lesson 3: Using Dimes and Pennies, Activate: Looking Closely at the Dime and Explore 1: Counting Dimes and Pennies TIG pp. 351-353

Grade 2

- Module 2, Topic 4, Lesson 5: Estimating and Measuring in Meters, Explore 2: Choosing an Appropriate Unit and Reflect: Reflect and Summarize
 - TIG pp. 444-445
- Module 3, Topic 7, Lesson 9: Identifying Faces in 3-Dimensional Figures, Explore 3: Guess My Block and Reflect: Reflect and Summarize TIG pp. 776-777

Grade 3

 Module 3, Topic 7, Lesson 3: Re-Engaging with Rectangular Arrays, Center 3: How Did She Do It? <u>TIG p. 621</u> Module 4, Topic 10, Lesson 10: Comparing Fractions with Equal Denominators, Explore 1: Ordering Fractions Within a Context

TIG pp. 1021-1022

Grade 4

Module 3, Topic 6, Lesson 1: Investigating Patterns, Explore
 2: Patterns Within Patterns

TIG pp. 561-563

 Module 5, Topic 11, Lesson 9: Urban Utopia, Explore 2: Walking Around Town TIG pp. 1125-1126

Grade 5

 Module 1, Topic 2, Lesson 5: Addition, Subtraction, Multiplication, and Division, Explore 1: Order with More Operations

TIG p. 150

 Module 5, Topic 12, Lesson 6: Something Fishy, Explore 1: Designing a Stingray Habitat and Explore 2: Analyzing Designs

<u>TIG pp. 1178-1179</u>

Examples of guidance for teachers to engage students in MP3.

Detailed lesson facilitation notes in the Teacher's Implementation Guide provide teachers with guidance, purposeful questions, embedded supports, and teacher moves to nurture student development and engagement in the Standards for Mathematical Practice for each activity.

The Instructional Strategies Handbook describes the instructional strategies and math language routines used within the ClearMath Elementary Product. Each description includes where to identify the strategy, the research behind the strategy, an example, and implementation support. Instructional strategies provide teachers with pedagogical moves they can use to support the needs of the diverse learners in their classroom. These strategies are research-based to maximize the outcomes of the learning experiences.

• Instructional Strategies Handbook

2h Publisher Evidence Collection

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.

Related Resources

• 2h Evidence Guide

Scoring Criteria

1 points

 There is intentional development of MP4 to meet its full intent in connection to grade-level content.

0 point

 There is no intentional development of MP4 to meet its full intent in connection to grade-level content.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 2h, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 2h Evidence Slides.

These resources within ClearMath Elementary align to Indicator 2h with components for each grade level.

- Teacher's Implementation Guides
- Student Resource Books

These programmatic resources within ClearMath Elementary align to Indicator 2h.

Instructional Strategies Handbook

Indicator 2h Guiding Question:

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

Examples of intentional development of MP4 to meet its

Each Explore activity intentionally develops a singular Standard for Mathematical Practice or pair of Standards for Mathematical

full intent in connection to grade-level content.

Practice to support students as they develop mathematical habits of minds. The Habits of Mind (SMPs) for each Explore activity are included at the activity level in both the Teacher's Implementation Guide and the Student Resource Book for each grade.

The Mindset Reflection that concludes each Re-Engagement Lesson encourages students to reflect on the learning goals and Habits of Mind (SMPs) they have engaged with in the topic. To view which Habits of Mind students reflect on in each Re-Engagement Lesson throughout the course, refer to the Habits of Mind table in the Assessment Guide for each grade.

These specific activities highlight intentional development of MP4 to meet its full intent in connection to grade-level content:

Kindergarten

- Module 1, Topic 1, Lesson 7: Working with 5, Explore 2: Completing a Number Path TIG pp. 77-78
- Module 3, Topic 5, Lesson 1: Joining Within 5, Explore 2: Tell a Joining Story TIG pp. 546-547

Grade 1

- Module 3, Topic 6, Lesson 10: Determining Equality with Equations, Explore 1: Building Equations with Colored Rods TIG pp. 648-650
- Module 4, Topic 9, Lesson 5: Re-Engaging with Using Models to Add, Center 3: Back and Forth TIG pp. 983-984

Grade 2

- Module 1, Topic 3, Lesson 8: Adding Multiples of 10, Explore 2: Adding a Multiple of 10 TIG pp. 337-339
- Module 2, Topic 6, Lesson 1: How Many Supplies?, Explore
 2: Representing Data in a Picture Graph
 TIG pp. 621-622

- Module 1, Topic 3, Lesson 1: Creating a Scaled Plcture Graph, Explore 1: Using a Picture Graph to Answer Questions
 - TIG pp. 189-191
- Module 3, Topic 8, Lesson 1: Properties of Multiplication, Explore 3: Practicing with Properties

TIG pp. 702-703

Grade 4

 Module 2, Topic 5, Lesson 10: Adding and Subtracting Fractions from Line Plot Data, Explore 1: Analyzing Data to Solve Problems

TIG pp. 520-521

 Module 3, Topic 8, Lesson 1: Modeling Multiples of Unit Fractions, Explore 1: Modeling Multiplication with Unit Fractions

TIG pp. 780-781

Grade 5

- Module 4, Topic 10, Lesson 7: Dividing a Whole Number by a Unit Fraction Using Number Lines, Explore 1: Representing Fraction Division on a Vertical Number Line TIG pp. 960-961
- Module 5, Topic 13, Lesson 7: Hands and Feet, Explore 1: Collecting Data and Explore 3: Graphing Data on a Coordinate Plane TIG pp. 1255-1258

Examples of guidance for teachers to engage students in MP4.

Detailed lesson facilitation notes in the Teacher's Implementation Guide provide teachers with guidance, purposeful questions, embedded supports, and teacher moves to nurture student development and engagement in the Standards for Mathematical Practice for each activity.

The Instructional Strategies Handbook describes the instructional strategies and math language routines used within the ClearMath Elementary Product. Each description includes where to identify the strategy, the research behind the strategy, an example, and implementation support. Instructional strategies provide teachers with pedagogical moves they can use to support the needs of the diverse learners in their classroom. These strategies are research-based to maximize the outcomes of the learning experiences.

Instructional Strategies Handbook

2i Publisher Evidence Collection

Criterion 2.2		gfully connect the Standards for Mathematical Standards for Mathematical Practice.	
Indicator 2i	appropriate tools	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.	
Related Resources		2i Evidence Guide	
Scoring Criteria			

1 points

•	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.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 2i, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 2i Evidence Slides.

These resources within ClearMath Elementary align to Indicator 2i with components for each grade level.

- Teacher's Implementation Guides
- Student Resource Books

These programmatic resources within ClearMath Elementary align to Indicator 2i.

Instructional Strategies Handbook

Indicator 2i Guiding Question:

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 **Wb**S

Evidence Collection

Examples of intentional development of MP5 to meet its

Each Explore activity intentionally develops a singular Standard for Mathematical Practice or pair of Standards for Mathematical full intent in connection to grade-level content.

Practice to support students as they develop mathematical habits of minds. The Habits of Mind (SMPs) for each Explore activity are included at the activity level in both the Teacher's Implementation Guide and the Student Resource Book for each grade.

The Mindset Reflection that concludes each Re-Engagement Lesson encourages students to reflect on the learning goals and Habits of Mind (SMPs) they have engaged with in the topic. To view which Habits of Mind students reflect on in each Re-Engagement Lesson throughout the course, refer to the Habits of Mind table in the Assessment Guide for each grade.

These specific activities highlight intentional development of MP5 to meet its full intent in connection to grade-level content:

Kindergarten

- Module 1, Topic 2, Lesson 11: Re-Engaging with Identifying the Numbers 0-10, Center 1: Feeding Frenzy TIG p. 207
- Module 5, Topic 10, Lesson 6: What Makes Numbers Within 5 in a Ten Frame?, Activate: Sorting 5 Counters in a Ten Frame and Explore 1: Subtracting on a Ten Frame TIG pp. 1199-1201

Grade 1

 Module 2, Topic 5, Lesson 1: Modeling Addition with Colored Rods, Explore 3: Using Colored Rods to Model Addition

TIG pp. 469-470

 Module 4, Topic 10, Lesson 4: Composing a 10 to Add, Explore 1: Building to Compose a 10 TIG pp. 1066-1067

Grade 2

 Module 1, Topic 1, Lesson 6: Composing and Decomposing Within 20, Explore 1: Breaking 10-20 Objects into 2 Sets

TIG pp. 58-59

 Module 2, Topic 4, Lesson 1: Estimating and Measuring in Inches, Explore 1: Using Benchmarks for 1 Inch <u>TIG pp. 406-407</u>

Grade 3

 Module 1, Topic 1, Lesson 5: Tiling Rectangles, Explore 2: Tiling to Determine Areas TIG pp. 51-52 Module 2, Topic 5, Lesson 4: Pattern Blocks, Explore 2: Exploring Parts and Wholes and Explore 3: Modeling Fractions with Pattern Blocks TIG pp. 437-439

Grade 4

- Module 3, Topic 7, Lesson 5: Area Models and Partial Products, Explore 1: Creating Area Models TIG p. 704
- Module 5, Topic 11, Lesson 4: Understanding Angles, Explore 1: Measuring Angles with a 360° Protractor TIG pp. 1084-1085

Grade 5

- Module 1, Topic 1, Lesson 5: Understanding Rectangular Prism Dimensions, Explore 2: How Many Prisms? TIG pp. 59-60
- Module 2, Topic 3, Lesson 2: Multiplying Multi-Digit Numbers, Explore 1: Multiplying with Area Models and Cross Number Puzzles
 TIG pp. 233-234

Examples of guidance for teachers to engage students in MP5.

Detailed lesson facilitation notes in the Teacher's Implementation Guide provide teachers with guidance, purposeful questions, embedded supports, and teacher moves to nurture student development and engagement in the Standards for Mathematical Practice for each activity.

The Instructional Strategies Handbook describes the instructional strategies and math language routines used within the ClearMath Elementary Product. Each description includes where to identify the strategy, the research behind the strategy, an example, and implementation support. Instructional strategies provide teachers with pedagogical moves they can use to support the needs of the diverse learners in their classroom. These strategies are research-based to maximize the outcomes of the learning experiences.

<u>Instructional Strategies Handbook</u>

2j Publisher Evidence Collection

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.	

Related Resources

• 2j Evidence Guide

Scoring Criteria

1 points

 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.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 2j, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 2j Evidence Slides.

These resources within ClearMath Elementary align to Indicator 2j with components for each grade level.

- Teacher's Implementation Guides
- Student Resource Books

These programmatic resources within ClearMath Elementary align to Indicator 2j.

Instructional Strategies Handbook

Indicator 2j Guiding Question:

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

Examples of intentional development of MP6 to meet its full intent in connection to grade-level content.

Each Explore activity intentionally develops a singular Standard for Mathematical Practice or pair of Standards for Mathematical Practice to support students as they develop mathematical habits of minds. The Habits of Mind (SMPs) for each Explore activity are included at the activity level in both the Teacher's Implementation Guide and the Student Resource Book for each grade.

The Mindset Reflection that concludes each Re-Engagement Lesson encourages students to reflect on the learning goals and Habits of Mind (SMPs) they have engaged with in the topic. To view which Habits of Mind students reflect on in each Re-Engagement Lesson throughout the course, refer to the Habits of Mind table in the Assessment Guide for each grade.

These specific activities highlight intentional development of MP6 to meet its full intent in connection to grade-level content:

Kindergarten

 Module 3, Topic 6, Lesson 2: Modeling Addition with Quantities and Numbers, Explore 2: Matching Number Bonds and Totals

IIG pp. 700-701

 Module 5, Topic 11, Lesson 6: Identifying Attributes of 3-Dimensional Shapes, Activate: Observing 3-Dimensional Shapes and Explore 1: Naming 3-Dimensional Shapes TIG pp. 1323-1324

Grade 1

- Module 1, Topic 1, Lesson 5: Collecting Data to Create a Picture Graph, Explore 1: Sorting Animals TIG pp. 52-53
- Module 4, Topic 7, Lesson 14: Re-Engaging with Length and Shapes, Center 1: Comparing Connecting Cubes TIG pp. 806-807

Grade 2

- Module 3, Topic 8, Lesson 4: Re-Engaging with Telling Time,
 Center 1: Telling Time to 5 Minutes
 TIG pp. 846-847
- Module 5, Topic 12, Lesson 7: Paying for Dinner, Explore 2: What's for Dinner?
 TIG pp. 1288-1289

Grade 3

Module 2, Topic 4, Lesson 1: Cross Number Puzzles, Explore
 1: Solving Cross Number Puzzles

TIG pp. 266-267

 Module 3, Topic 9, Lesson 8: How Many in Each Group?, Activate: Investigating Sharing Machine A, Explore 1: How Many Objects in Each Package?, and Explore 2: Determining Rules for Sharing Machines TIG pp. 859-862

Grade 4

- Module 1, Topic 3, Lesson 7: Representing Decimals on a Number Line with Precision, Explore 1: Building Number Lines and Explore 2: Number Line Precision TIG pp. 306-309
- Module 5, Topic 11, Lesson 1: Points, Lines, and Rays, Explore 1: The Building Blocks of Geometry TIG pp. 1060-1061

Grade 5

- Module 3, Topic 8, Lesson 1: Relating Measurements, Explore 2: Equivalent Units of Measure TIG pp. 707-708
- Module 5, Topic 13, Lesson 2: Building a Coordinate Plane, Explore 1: Naming Locations on a Coordinate Plane <u>TIG pp. 1216-1217</u>

Examples of guidance for teachers to engage students in MP6.

Detailed lesson facilitation notes in the Teacher's Implementation Guide provide teachers with guidance, purposeful questions, embedded supports, and teacher moves to nurture student development and engagement in the Standards for Mathematical Practice for each activity.

The Instructional Strategies Handbook describes the instructional strategies and math language routines used within the ClearMath Elementary Product. Each description includes where to identify the strategy, the research behind the strategy, an example, and implementation support. Instructional strategies provide teachers with pedagogical moves they can use to support the needs of the diverse learners in their classroom. These strategies are research-based to maximize the outcomes of the learning experiences.

• Instructional Strategies Handbook

2k Publisher Evidence Collection

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.

Related Resources

2k Evidence Guide

Scoring Criteria

1 points

 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.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 2k, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 2k Evidence Slides.

These resources within ClearMath Elementary align to Indicator 2k with components for each grade level.

- Teacher's Implementation Guides
- Student Resource Books

These programmatic resources within ClearMath Elementary align to Indicator 2k.

Instructional Strategies Handbook

Indicator 2k Guiding Question:

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

Examples of intentional development of MP7 to meet its

Each Explore activity intentionally develops a singular Standard for Mathematical Practice or pair of Standards for Mathematical

full intent in connection to grade-level content.

Practice to support students as they develop mathematical habits of minds. The Habits of Mind (SMPs) for each Explore activity are included at the activity level in both the Teacher's Implementation Guide and the Student Resource Book for each grade.

The Mindset Reflection that concludes each Re-Engagement Lesson encourages students to reflect on the learning goals and Habits of Mind (SMPs) they have engaged with in the topic. To view which Habits of Mind students reflect on in each Re-Engagement Lesson throughout the course, refer to the Habits of Mind table in the Assessment Guide for each grade.

These specific activities highlight intentional development of MP7 to meet its full intent in connection to grade-level content:

Kindergarten

- Module 2, Topic 4, Lesson 8: Using Sorts to Make a Pattern, Explore 2: Introducing Patterns
 TIG pp. 459-460
- Module 3, Topic 6, Lesson 3: Modeling Addition with Numbers, Explore 2: Using Number Bonds to Sort TIG pp. 709-710

Grade 1

- Module 1, Topic 3, Lesson 4: Introducing the Number Line, Explore 1: Jumping by 1 and 2 on a Dot Line TIG pp. 246-247
- Module 5, Topic 11, Lesson 7: More Subtracting Tens, Explore 2: Subtracting on Open Number Lines TIG pp. 1237-1238

Grade 2

 Module 1, Topic 2, Lesson 12: Re-Engaging with Place-Value Comparison, Center 1: Number Cube Comparisons

TIG p. 254

 Module 5, Topic 13, Lesson 1: Exploring Expanded Form, Explore 2: Adding 3-Digit Numbers
 TIG pp. 1318-1319

Grade 3

 Module 1, Topic 2, Lesson 6: Decomposing Arrays to Multiply, Explore 2: Partitioning a 10-by-10 Grid and Explore 3: Arrays of Square Tiles TIG pp. 149-152 Module 5, Topic 13, Lesson 3: Classifying Quadrilaterals by Attributes, Explore 1: Quadrilateral Anchor Chart and Explore 3: Using Tangrams to Create Squares TIG pp. 1264-1267

Grade 4

- Module 1, Topic 1, Lesson 7: Expanded Notation, Explore
 2: Representing Numbers Using Place Value
 TIG pp. 76-77
- Module 4, Topic 10, Lesson 1: Multiplication with an Unknown Factor, Explore 2: Matching Area Models: Unknown Factors

TIG p. 942

Grade 5

- Module 3, Topic 6, Lesson 2: Adding Decimals, Explore 1: Adding Decimals Using Partial Sums and Explore 2: Comparing Strategies to Add Decimals TIG pp. 550-552
- Module 5, Topic 14, Lesson 7: Quadrilateral Hierarchy, Explore 1: Building a Hierarchy
 TIG pp. 1336-1337

Examples of guidance for teachers to engage students in MP7.

Detailed lesson facilitation notes in the Teacher's Implementation Guide provide teachers with guidance, purposeful questions, embedded supports, and teacher moves to nurture student development and engagement in the Standards for Mathematical Practice for each activity.

The Instructional Strategies Handbook describes the instructional strategies and math language routines used within the ClearMath Elementary Product. Each description includes where to identify the strategy, the research behind the strategy, an example, and implementation support. Instructional strategies provide teachers with pedagogical moves they can use to support the needs of the diverse learners in their classroom. These strategies are research-based to maximize the outcomes of the learning experiences.

Instructional Strategies Handbook

21 Publisher Evidence Collection

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.

Related Resources

2l Evidence Guide

Scoring Criteria

1 points

 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.

Resources to help reviewers score this indicator.

To view comprehensive evidence of Indicator 2I, refer to the corresponding slides from Carnegie Learning ClearMath Elementary | EdReports Evidence: Indicator 2I Evidence Slides.

These resources within ClearMath Elementary align to Indicator 2I with components for each grade level.

- Teacher's Implementation Guides
- Student Resource Books

These programmatic resources within ClearMath Elementary align to Indicator 21.

Instructional Strategies Handbook

Indicator 2I Guiding Question:

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

Examples of intentional development of MP8 to meet its

Each Explore activity intentionally develops a singular Standard for Mathematical Practice or pair of Standards for Mathematical

full intent in connection to grade-level content.

Practice to support students as they develop mathematical habits of minds. The Habits of Mind (SMPs) for each Explore activity are included at the activity level in both the Teacher's Implementation Guide and the Student Resource Book for each grade.

The Mindset Reflection that concludes each Re-Engagement Lesson encourages students to reflect on the learning goals and Habits of Mind (SMPs) they have engaged with in the topic. To view which Habits of Mind students reflect on in each Re-Engagement Lesson throughout the course, refer to the Habits of Mind table in the Assessment Guide for each grade.

These specific activities highlight intentional development of MP8 to meet its full intent in connection to grade-level content:

Kindergarten

 Module 4, Topic 8, Lesson 2: Composing and Decomposing Within 5, Explore 1: Number Bond Model Equations

TIG pp. 926-927

 Module 5, Topic 12, Lesson 10: Counting, Counting: From 101–120 Items, Explore 1: Counting Collections TIG pp. 1510-1511

Grade 1

- Module 3, Topic 8, Lesson 7: Re-Engaging with Halves and Fourths, Center 1: Where's the Partition?
 TIG pp. 880-881
- Module 4, Topic 10, Lesson 7: Adding 10 on the Number Line Hotel, Explore 2: Adding Tens on the Number Line Hotel

TIG pp. 1095-1096

Grade 2

- Module 1, Topic 1, Lesson 5: Re-Engaging with Relating Addition and Subtraction, Center 1: Creating Fact Families TIG pp. 50-51
- Module 1, Topic 3, Lesson 1: Modeling Addition with Base-10 Blocks, Explore 2: Trading to 1,000 TIG p. 278

Grade 3

 Module 2, Topic 4, Lesson 12: Skip Counting on a Number Line, Explore 2: Number Patterns, Explore 3: Using Skip Counting to Complete Number Patterns TIG pp. 369-372 Module 2, Topic 6, Lesson 1: Fractional Pieces of a Clock, Explore 1: Halves and Fourths of an Hour and Explore 2: Thirds and Sixths of an Hour

TIG pp. 502-506

Grade 4

 Module 2, Topic 5, Lesson 3: Adding Tenths and Hundredths, Explore 2: Adding with Denominators of 10 and 100

TIG pp. 461-462

 Module 3, Topic 7, Lesson 1: Investigating Multiplication, Activate: Patterns in Products and Explore 1: Multiplying Multiples of 10, 100, and 1,000

TIG pp. 669-670

Grade 5

- Module 2, Topic 4, Lesson 3: Multiplying by Powers of 10, Explore 2: Powers of 10 and the Number of Zeros TIG pp. 368-369
- Module 3, Topic 7, Lesson 7: Dividing Decimals, Activate: Patterns in Decimal Division and Explore 1: Dividing Decimals by Decimals
 TIG pp. 667-668

Examples of guidance for teachers to engage students in MP8.

Detailed lesson facilitation notes in the Teacher's Implementation Guide provide teachers with guidance, purposeful questions, embedded supports, and teacher moves to nurture student development and engagement in the Standards for Mathematical Practice for each activity.

The Instructional Strategies Handbook describes the instructional strategies and math language routines used within the ClearMath Elementary Product. Each description includes where to identify the strategy, the research behind the strategy, an example, and implementation support. Instructional strategies provide teachers with pedagogical moves they can use to support the needs of the diverse learners in their classroom. These strategies are research-based to maximize the outcomes of the learning experiences.

• Instructional Strategies Handbook