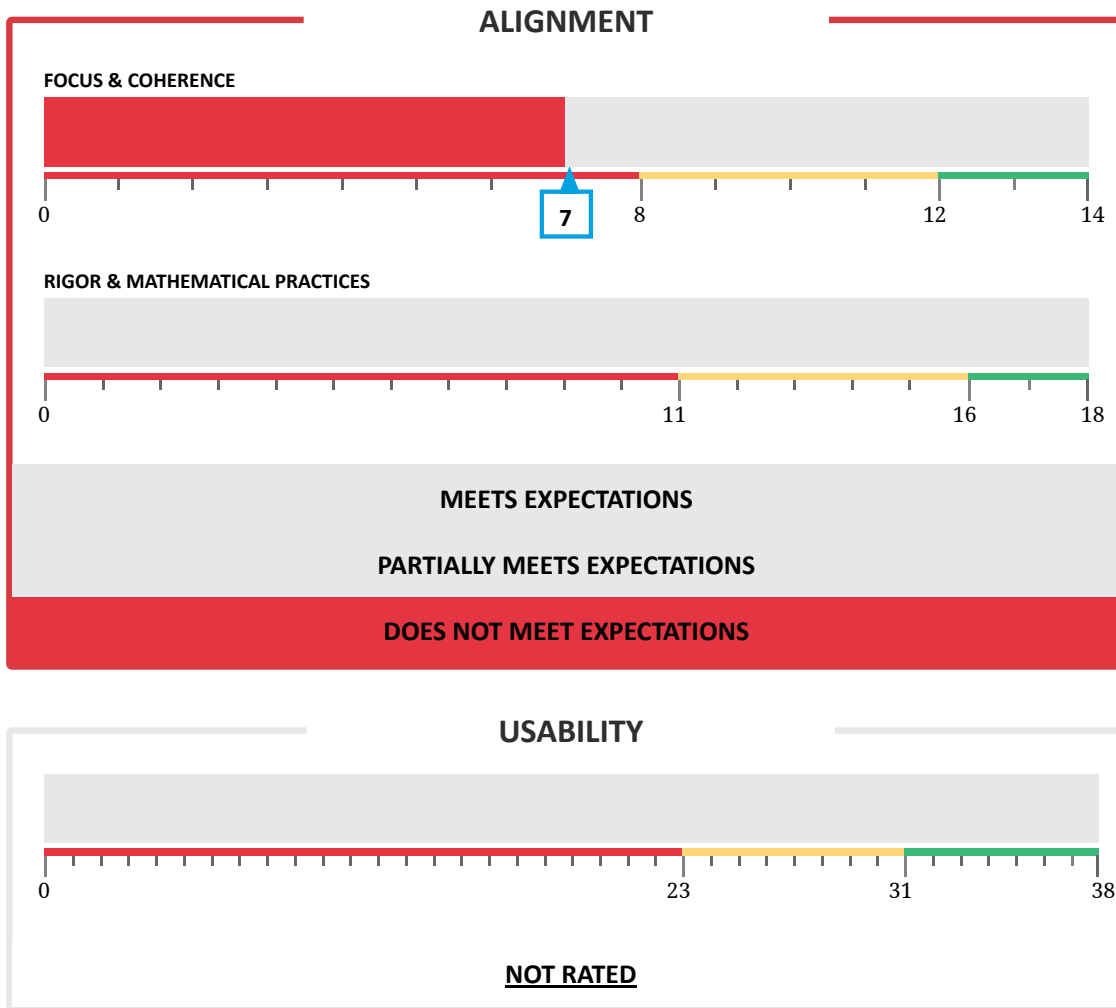


GRADE K EVERYDAY MATH KINDERGARTEN

PUBLISHER: MCGRAW-HILL EDUCATION SUBJECT: MATH

TEACHER ED. 978-0-02-141411-6

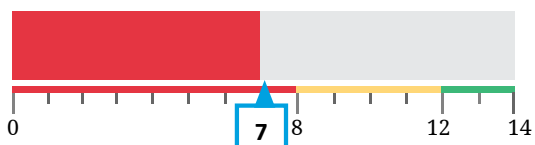


ALIGNMENT

EVERYDAY MATH KINDERGARTEN GRADE K DOES NOT MEET EXPECTATIONS FOR ALIGNMENT

The instructional materials reviewed for Kindergarten do not meet the expectations for alignment to the CCSSM. The instructional materials did not meet the expectations for gateway 1 as they did not appropriately focus on the major work of the grade nor demonstrate coherence within the grade and across other grades. The instructional materials were not reviewed for Gateway 2.

GATEWAY 1: FOCUS & COHERENCE DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Kindergarten Everyday Mathematics do not meet the expectations for Gateway One. The materials do meet the expectations for focusing on the major work of the grade, but do not meet the expectations for coherence. The instructional materials can easily be adjusted so no future grade-level content is assessed and the materials allocate a large percentage of instructional materials to the major work of the grade. Some strengths were found and noted in the coherence criterion, and the instructional materials partially met some of the expectations for coherence. Overall, the instructional materials do allocate enough time to the major work of the grade for Kindergarten but do not always meet the full depth of the standards.

FOCUS MEETS EXPECTATIONS



The Kindergarten Everyday Mathematics meet the expectations for focus. The materials' assessments could be modified so that future, grade-level standards are not assessed as indicated in indicator 1A. The materials devote a majority of the time to the major work of the grade as indicated in 1B. Overall, the instructional materials appropriately focus on Kindergarten standards through their allocation of instructional time.

2/2

CRITERION (1A)

Materials do not **assess** topics **before** the grade level in which the topic should be introduced.

The Kindergarten Everyday Mathematics materials meet the expectations for not assessing topics before the grade level in which they should be introduced. Future grade level topics are assessed, however those assessments could be removed without affecting the progression of learning for students. The number of future grade-level assessments is limited and could easily be removed by the teacher.

Indicator 1a

The instructional material **assesses** the grade-level content **and, if applicable**, content from earlier grades. Content from future grades may be introduced but students should not be held accountable on assessments for future expectations.

The instructional materials reviewed for Kindergarten meet expectations for assessment because above grade-level assessment items could be modified or omitted without a significant impact on the underlying structure of the instructional materials. Statistical distributions, and/or similarity, transformations and congruence do not appear in the Kindergarten materials.

The program allows for a Beginning-of-the-Year, Mid-year, and End-of-the-Year Assessment, which fully assess the Kindergarten standards. These assessments can be found in the Assessment Handbook. The Individual Profile of Progress for tracking and class progress are present in both paper and digital formats. This book has an overview of the assessments and at what point in the school year students should have mastered each standard. Each lesson has an Assessment Check-in that can be used as either formative or summative assessment as stated in the implementation guide.

The assessments call for attribute blocks, connecting cubes, and bear counters. Assessment look-fors sometimes include partial understandings of a standard, such as Lesson 4-11 states, *"In this lesson and during future practice, note whether children can count by 10s. Since this is an introductory lesson, do not expect children to do this independently yet. Provide continued practice and help them learn to use the number line and number patterns as resources"* (page 280).

Assessment check-ins mostly assess grade-level content. Examples include:

- Lesson 1-2 (page 46), students recognize and correctly name shapes (K.G.2).
- Lesson 2-5 (page 119), students represent and solve addition and subtraction situations within the number range expected in kindergarten (K.OA.1, K.OA.2).
- Lesson 3-10 (page 210), students show the correct number of fingers or objects to match a numeral

(K.CC.3).

- Lesson 5-10 (page 342), students model and solve stories concretely using counters (K.OA.1, K.OA.2).
- Lesson 7-10 (page 472), students represent and solve number stories using pictures, numbers, and symbols. (K.OA.1, K.OA.2).
- Lesson 8-13 (page 550), students represent and give equivalent names for numbers (to 20) using manipulatives, drawings, and expressions that reflect different groupings or decompositions. (K.OA.1, K.OA.3).
- Lesson 9-1 (page 566), students use precise shape and positional language to describe pattern block designs. (K.G.1, K.G.2).

The Assessment Check-Ins do have a few off grade-level assessment items included. The following off grade-level content are assessed in the Kindergarten Materials:

- Graphing at the Grade 1 level (1.MD.C.4) on page 244, Lesson 4-2 on page 376, Lesson 6-2 on page 461 and on pages 463, Lesson 7-7.
- Time is assessed at the Grade 1 level (1.MD.B.3) on page 508, Lesson 8.5, and at the Grade 4 level on page 602, lesson 9-8.
- The materials assess the use of a pan balance. Pan balances are meant to measure mass, a Grade 3 expectation (3.MD.A.2), not weight. To use the pan balance to measure weight, the gram weights would need to be used. The use of a pan balance is assessed on page 272 in Lesson 4-8, page 454 in Lesson 7-5, and on page 598 in Lesson 9-7.
- The graphing assessments and time assessments could be removed by the teacher without affecting the sequence of learning for students. The assessments and lessons on the pan balance would need to be significantly changed to be used to meet the standard.

EARNED **2 of 2** POINTS

4/4

CRITERION (1B)

Students and teachers using the materials as designed devote the large majority[1] of class time in each grade K-8 to the major work of the grade.

The Kindergarten Everyday Mathematics materials meet expectations for devoting the large majority of class time to the major work of the grade level. In Kindergarten, the materials should engage students in the major work of the grade close to 65-85 percent of the time. The Everyday Mathematics engages students in the major work of the grade about 65 percent of the time.

Indicator 1b

Instructional material spends the majority of class time on the major cluster of each grade.

The instructional materials reviewed for Kindergarten meet the expectations for focus by spending the majority of the time on the major clusters of the grade. This includes all the clusters in K.CC, K.OA and K.NBT.

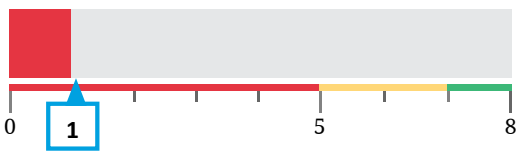
The Kindergarten materials spend the majority of class time on the major clusters of the grade. In Kindergarten, students should spend approximately 65-85 percent of their time on the major clusters of the grade. Kindergarten *Everyday Mathematics* includes nine units with 126 lessons (counting the open responses as two lessons). Work was not calculated by units since the units spiral and are not clustered by groups of standards. At the lesson level, the lessons are divided into Daily Routines, Core Activities, and Practice. There are 126 days of lessons; each day consists of 10-15 minutes on routines, 25-40 minutes of a core activity, and 10-20 minutes of practice. Analysis of the lessons indicates about 65 percent of the core activities focus on the major work.

The following calculations were derived from the core activities of the lesson:

- Eighty-two lessons out of the 126 are focused on the major work. This represents approximately 65 percent of the lessons.
- Thirty-six lessons out of the 126 are focused on the supporting work of the grade. This work was treated separately from the major work of the grade. This represents approximately 30 percent of the lessons.
- Seven lessons out of the 126 are focused on off, grade-level work. This represents approximately 5 percent of the lessons. This includes lesson 1-13 focused on patterning at the Grade 4 level; lesson 4-9 focused on measuring mass, a Grade 3 expectation; lesson 6-2 focused on measuring lengths indirectly, a Grade 1 standard; lesson 7-6 focused on measuring mass, a Grade 3 standard; lesson 9-8 focused on measuring mass, a Grade 3 expectation; and lesson 9-9 focused on time at the Grade 3 level.
- One lesson out the 126 is focused on work not identified in the standards. This represents about 1 percent of the lessons.
- Unit 8 includes the greatest percentage, approximately 85 percent (11 of 13 lessons), of major work, and Unit 6 includes the least percentage, approximately 46 percent (6 of 13 lessons), of major work.

EARNED **4 of 4** POINTS

COHERENCE DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Kindergarten Everyday Mathematics do not meet the expectations for Gateway One. The materials do meet the expectations for focusing on the major work of the grade, but do not meet the expectations for coherence. The instructional materials can easily be adjusted so no future grade-level content is assessed and the materials allocate a large percentage of instructional materials to the major work of the grade. Some strengths were found and noted in the coherence criterion, and the instructional materials partially met some of the expectations for coherence. Overall, the instructional materials do allocate enough time to the major work of the grade for Kindergarten but do not always meet the full depth of the standards.

1/8

CRITERION (1C-1F)

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

The instructional materials reviewed for Kindergarten do not meet the expectations for being coherent and consistent with CCSSM. The instructional materials do not have enough materials to be viable for a school year nor do the materials always meet the depth of the standards. The majority of instructional materials do not have supporting content enhancing focus and coherence simultaneously, but they do have objectives which are clearly shaped by the CCSSM. Overall, the instructional materials for Kindergarten do not exhibit characteristics of coherence as noted in indicators 1E and 1F or for the entire criterion.

Indicator 1c

Supporting content enhances focus and coherence simultaneously by engaging students in the major work of the grade.

The instructional materials reviewed for Kindergarten do not meet expectation that supporting content enhances focus and coherence by engaging students in the major work of the grade. The majority of supporting work is treated separately and does not support the major work of the grade.

- Unit 1 has four lessons and two practices which are supporting work, and only one, Lesson 1-8,

supports major work. Lessons 1 and 2, pages 40-47, focus on students comparing length and examining pattern block shapes as they participate in a social activity; while these lessons align with standards for supporting work, there is no connection to the major work of the grade. Lesson 1-12 focuses on shapes, supporting work of the grade. There is a missed opportunity here to support major work through a connection to counting sides or corners or sorting and counting groups.

- Unit 2 has five lessons and four practices which are supporting work, and only one practice, 2-10, supports major work. Lessons 2-3, 2-8, and 2-11 focus on supporting work of the grade, shapes. There is a missed opportunity here to support major work through a connection to counting sides or corners or sorting and counting groups. Lesson 2-7 focuses on supporting work of sorting or "classify objects into given categories" but partially misses the standard "count the numbers of objects in each category and sort the categories by count."
- Unit 3 has four lessons and three practices which are supporting work, and only one lesson, 3-1, supports major work. Lesson 3-5 focuses on supporting work of the grade by comparing longer or shorter paper strips. An opportunity to compare length on a number line is missed. For instance, the length from 0-2 would be shorter than the length from 0-4.
- Unit 4 has six lessons and four practices which are supporting work, and only one lesson, 4-3, supports major work. In Lesson 4-2, "Shapes by Feel," an opportunity to connect to counting as students count sides or corners to identify shapes is missed. Lesson 4-7, "Building hexagons," asks students to count the number of different solutions they found to the build hexagons; however, an opportunity is missed in counting to compare differences in the number of sides of different shapes such as a triangle or rectangle. Lesson 4-9, "Exploring Weight and Pan Balance Leveling", requires using collections of items to compare the weights using a pan balance. Connections to the number of items in the collections are a missed opportunity to connect units of measure to counting.
- Unit 5, Lesson 5-5, takes students on a shape walk. When children return to the classroom, they are encouraged to recall which shapes are most common. However, on the walk, there is no reference to counting or engaging in observations of which shapes are more common at the time they are engaged with observing concrete objects. They are asked to compare from memory with the missed opportunity of having counted the actual objects for each shape.
- Unit 6 has eight lessons and five practices which are supporting work, and only one practice, 6-5, supports major work. Lessons 6-1, 6-2 and 6-7 focus on supporting work of the grade by comparing longer or shorter paper strips. An opportunity to compare lengths on a number line is missed. For instance, the length from 0-2 would be shorter than the length from 0-4. Lessons 6-4 and 6-10 focus on shapes with added work on solid (3-dimensional) shapes. No attempt is made to connect to the major work of the grade in any of these lessons even though students count sides to determine the shape. No connection is made to counting or +1 addition.
- Unit 7 has four lessons and three practices which are supporting work, and no lessons or practices support major work. Lessons 7-6, "Exploring Weight and Pan Balance Leveling," has students using collections of items to compare the weights using a pan balance. Connections to the number of items in the collections are a missed opportunity to connect units of measure to counting. Lessons 7-4 and 7-13 focus on shapes with added work on solid (3-dimensional) shapes. No attempt is made to connect to the major work of the grade in any of these lessons even though students count sides to determine the shape. No connection is made to counting or +1 addition.
- Unit 8 has two lessons and four practices which are supporting work, and no lessons or practices support major work. Lessons 8-1 and 8-2 focus on shapes with added work on solid (3-dimensional) shapes. No attempt is made to connect to the major work of the grade in any of these lessons even though students count sides to determine the shape. No connection is made to counting or +1 addition.
- Unit 9 has six lessons and four practices which are supporting work, and one lesson, 9-4, and one practice, 9-1, support major work.

EARNED **0 of 2** POINTS

Indicator 1d

The amount of content designated for one grade level is viable for one school year in order to foster coherence between grades.

The instructional materials reviewed do not meet the expectation for the amount of content designated for one grade level being viable for one school year in order to foster coherence between grades. The *Everyday Math* Kindergarten program consists of 117 lessons, grouped in 9 sections with 13 lessons in each section. The program is made to teach four lessons per week with the fifth day used for extra game time, differentiation activities, or catch up (as stated on page xl of the teacher edition). The program requires the teacher to teach 45-60 minutes of math each day. If a teacher is using Friday as a Flex day as the program suggests, then this program will cover approximately 29 weeks of classroom time. Significant modifications by the teacher would need to be made to the program materials to be viable for one school year.

Kindergarten lessons do provide connections sections at the end of the lesson. There is not a time frame for these connections to other subject areas. There is not enough time allotted in the 45-60 minutes a day to cover the connections portion of the lesson.

EARNED 0 of 2 POINTS

Indicator 1e

Materials are consistent with the progressions in the Standards i. Materials develop according to the grade-by-grade progressions in the Standards. If there is content from prior or future grades, that content is clearly identified and related to grade-level work ii. Materials give all students extensive work with grade-level problems iii. Materials relate grade level concepts explicitly to prior knowledge from earlier grades.

The instructional materials reviewed for Kindergarten do not meet the expectation for being consistent with the progressions in the standards. Content from future grades is not clearly identified or connected to grade-level work and students are not given extensive work with grade-level problems.

Material related to future grade-level content is not clearly identified or related to grade-level work. The Kindergarten materials have several instances where future grade-level content is present and not identified as such. For example, in Unit 1, Lesson 13 is focused on shape patterns which is a Grade 4 standard, 4.OA.C.5, and does not state it is future grade-level work or how it would relate to Kindergarten work. The same is true of Unit 4, Lesson 9, which measures mass, a Grade 3 standard, 3.MD.2, and Unit 6, Lesson 2, which orders lengths, a Grade 1 standard, 1.MD.A.1. This is true of almost all off grade-level work. The one exception is that the end of the year Daily Routines Calendar/time do state that they are preparing for first grade by introducing clock and time.

The content does not always meet the full depth of standards. This mainly occurs because of lack of lessons addressing the full depth. For example, there are some lessons which address K.OA.A.2; however, there are only six lessons which have students adding and subtracting within 10. Another example is K.NBT.A.1; only four lessons have students composing and decomposing numbers from 11 to 19. A third example is K.CC.A.2; only one lesson, 8-4, has students counting starting from any number. Additionally, according to the Progressions document, students need to be able to mathematize real-world situations. There are very few opportunities for Kindergartners to practice this skill.

Differentiation options, present in most lessons, offer opportunities for students at different instructional levels to engage with the standards. In some instances, the differentiation tasks, while aligned to standards, are not aligned to the same standard as the focus lesson. An example of this is lesson 1-1. The lesson focus is K.MD.2, "Directly compare two objects with a measurable attribute in common to see which has more of or less of the attribute and describe the difference." The readiness task asks students to match measurable attributes which does not address the same standard. There is concern that students engaging in the readiness tasks might not reach the full depth of the standard. The extra practice and enrichment tasks are aligned to the lesson standard.

Everyday Mathematics Kindergarten materials do not provide extensive work with grade-level standards. For example, most materials focus on counting and cardinality or operations and algebraic thinking. Except for the Number of the Day routine, only six lessons are directly related to place value and the base-10 number system, 5-5, 5-6, 5-8, 5-12, and practices 6-3 and 6-10, which is a major standard for K students to connect to Grade 1 work.

In lessons where prior knowledge is needed, the instructional materials do not state that prior knowledge is being used. When future grade-level concepts are introduced, there is no mention that the concept will be used in future grades. If the teacher uses the spiral trace at the beginning of the lesson or unit, the teacher will know where prior knowledge is used based on the spiral trace and when the student will use the skill/concept again in the future. For example, in lesson 2-13 on page 154, the spiral snapshot shows how the standard progresses through the materials. The Spiral trace is not extensive and does not show where the students learning is really headed. It is listed by lessons and not connecting standards. At the beginning of each unit, the spiral trace provides an explanation of what will occur by the end of the unit, but the spiral trace does not explain any further and does not connect to the next standard.

EARNED **0 of 2** POINTS

Indicator 1f

Materials foster coherence through connections at a single grade, where appropriate and required by the Standards i. Materials include learning objectives that are visibly shaped by CCSSM cluster headings. ii. Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important.

The instructional materials reviewed for Kindergarten partially meet the expectations for fostering coherence through connections at a single grade, where appropriate and when the standards require. Overall, materials include learning objectives that are visibly shaped by CCSSM cluster headings but missed opportunities to provide problems and activities that connect two or more clusters in a domain or two or more domains, when these connections are natural and important.

Although the materials do not always reach the full depth of the standard, the materials do include learning objectives which are visibly shaped by CCSSM cluster headings. In the teacher's lesson guide on page EM2, the materials show the Goals for Mathematical Content for Everyday Math and how they align to the CCSSM. From this alignment it is apparent the goals are shaped by the CCSSM cluster headings.

Instructional materials shaped by cluster headings include the following examples:

- Lesson 1-5, "Getting to Know Numbers," is shaped by K.CC.B.
- Lesson 2-10, "Counting Collections," is shaped by K.CC.B.
- Lesson 3-5, "Longer or Shorter?" is shaped by K.MD.A.
- Lesson 5-5, "Shapes All Around," is shaped by K.G.A.

While the materials have many instances where two or more domains are connected, often the connections are only surface-level connections. For example, Lesson 1-10 shows a connection between K.CC.4, K.OA.3, and K.OA.5. The lesson has students subitizing but does not have students decomposing numbers or finding the number when added that makes a ten. Lesson 4-1 shows a connection between K.CC.5, K.CC.6, K.MD.1, K.MD.3, and K.G.2. The lesson has students sorting by attribute, but only one question is suggested for K.CC and one for K.G.2. This does not have the deep connections expected. Lesson 6-10 shows a connection between K.MD.1, K.MD.2, K.G.2, and K.G.4; however, the lesson only has students do K.MD.2 and not the other standards. Additionally, 72 of the lessons are only aligned to one domain.

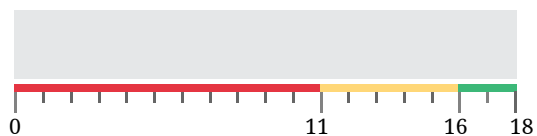
Additionally, there are many instances where lessons do not build on or connect to prior or next day materials. Lessons for supporting work appear to be randomly interjected once or twice throughout the unit. For example, when the focus lesson is counting and cardinality and the practice is shapes, little

attempt is made to connect these concepts even though they are presented on the same day. Some examples of this are 5-11, 5-13, 6-1, 6-3, 6-4, 6-5, 6-7, 6-8, 6-9, and 6-10. Rarely do the connections from the Daily Routines play out in the lessons.

EARNED **1 of 2** POINTS

GATEWAY 2: RIGOR AND MATHEMATICAL PRACTICES

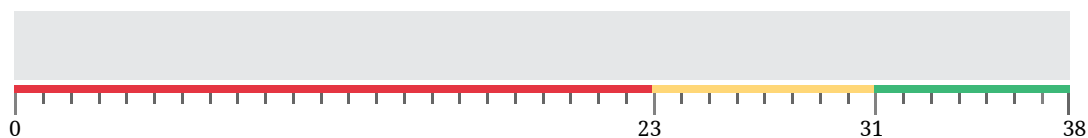
DID NOT REVIEW



This material was not reviewed for Gateway Two because it did not meet expectations for Gateway One

GATEWAY 3: USABILITY

DID NOT REVIEW

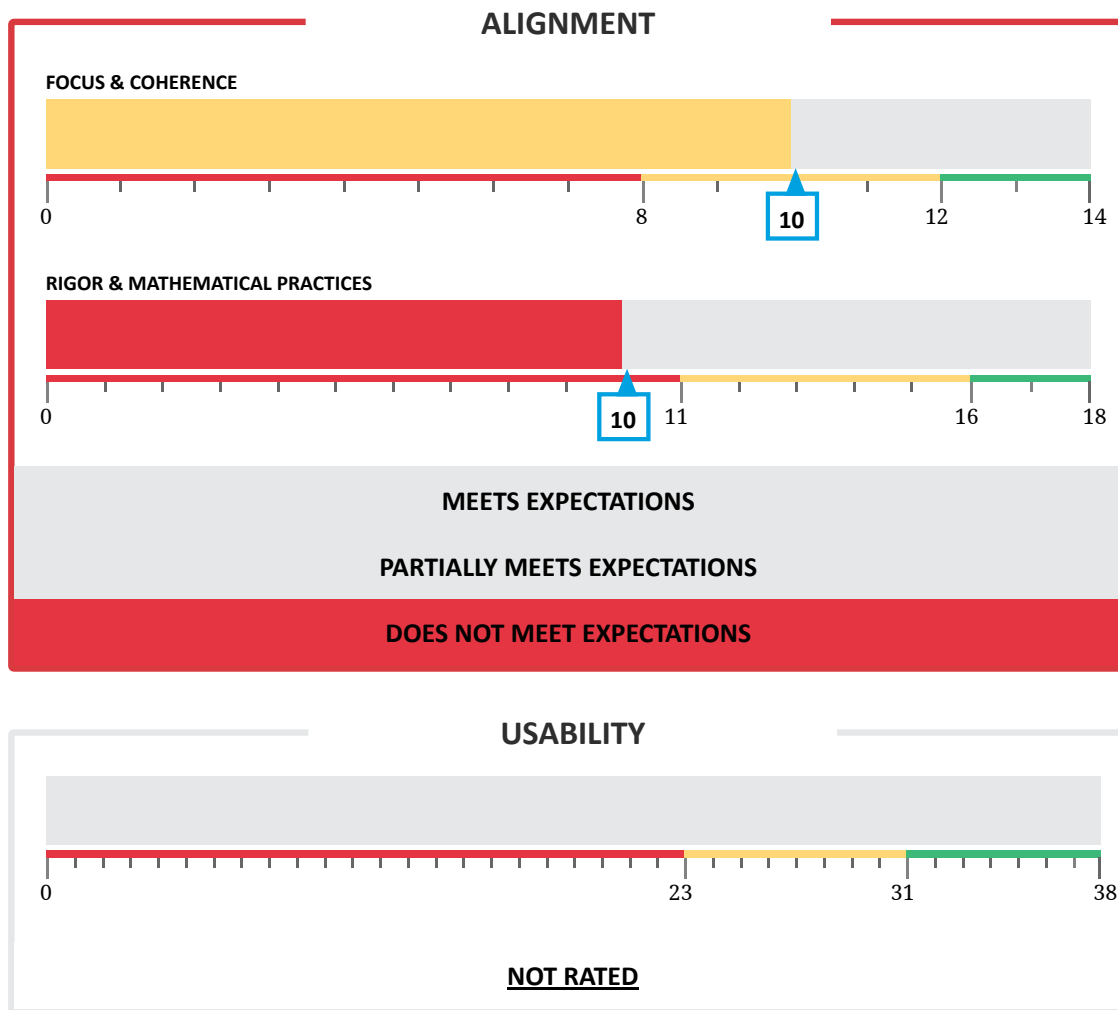


This material was not reviewed for Gateway Three because it did not meet expectations for Gateways One and Two

GRADE 1 EVERYDAY MATH GRADE 1

PUBLISHER: MCGRAW-HILL EDUCATION SUBJECT: MATH

TEACHER ED. 978-0-02-114463-1, STUDENT ED. 978-0-02-143081-9



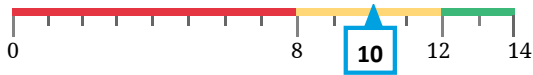
ALIGNMENT

EVERYDAY MATH GRADE 1 GRADE 1 DOES NOT MEET EXPECTATIONS FOR ALIGNMENT

The instructional materials reviewed for Grade 1 did not meet the expectations for alignment to the CCSSM. The instructional materials partially meet the expectations for gateway 1 as they appropriately focus on the major work of the grade but did not always demonstrate coherence within the grade and across other grades. The instructional materials do not meet the expectations for Gateway 2 as they did partially address rigor within the grade-level standards, but there are missed opportunities in the materials when it comes to attending to the full meaning of the MPs.

GATEWAY 1: FOCUS & COHERENCE PARTIALLY MEETS EXPECTATIONS





The instructional materials reviewed for Grade 1 Everyday Mathematics partially meet the expectations for Gateway 1. The materials meet the expectations for focusing on the major work of the grade, but they do not meet the expectations for coherence. Some strengths were found and noted in the coherence criterion as the instructional materials partially met some of the expectations for coherence. Overall, the instructional materials allocate enough time to the major work of the grade for Grade 1, but the materials do not always meet the full depth of the standards.

FOCUS MEETS EXPECTATIONS



The Grade 1 Everyday Mathematics meet the expectations for focus. The material's assessments could be modified so that future, grade-level standards are not assessed as indicated in 1A, and the materials devote a majority of the time to the major work of the grade as indicated in 1B. Overall, the instructional materials appropriately focus on Grade 1 standards through their allocation of instructional time.

2/2

CRITERION (1A)

Materials do not **assess** topics **before** the grade level in which the topic should be introduced.

The Grade 1 Everyday Mathematics materials meet the expectations for not assessing topics before the grade-level in which they should be introduced. Future, grade-level topics are assessed, however those assessments could be removed without affecting the progression of learning for students. The number of above grade-level assessments is limited and could easily be removed by the teacher.

Indicator 1a

The instructional material **assesses** the grade-level content **and, if applicable**, content from earlier grades. Content from future grades may be introduced but students should not be held accountable on assessments for future expectations.

The instructional materials reviewed for Grade 1 meet expectations for assessment because above grade-level assessment items could be modified or omitted without a significant impact on the underlying structure of the instructional materials. Probability, statistical distributions, and/or similarity, transformations and congruence do not appear in the Grade 1 materials.

The program allows for a Beginning of the Year, Mid-year, End of the Year Assessment, and Unit Assessments, which mostly assess the Grade 1 standards. There are also nine unit assessments/progress checks. The unit assessments/progress checks have portions for Self Assessment, Unit Assessment, Open Response Assessment, Cumulative Assessment, and a Challenge. Each grade level's standards are broken down into 45 to 80 Goals for Mathematical Content that are listed in the back of the Teacher's Lesson Guide and also in the online Teacher Center. These assessments can be found in the Assessment Handbook. The Individual Profile of Progress for tracking and class progress are present in both paper (pages 101-112 in the Assessment Handbook) and digital formats. Most lessons have an Assessment Check-in that can be used as either formative or summative assessment as stated in the implementation guide.

Assessment check-ins are part of most lessons and mostly assess grade-level content. Examples include:

- Lesson 2-11, (page 201), students solve word problems with unknowns in different positions (1.OA.1).
- Lesson 3-9, (page 277), students count forward and backward and add or subtract 10 from given numbers (1.OA.5, 1.NBT.1, 1.NBT.5).
- Lesson 4-1, (page 312), students directly compare lengths of objects indirectly by using a third object (1.MD.1).

- Lesson 4-11, (page 374), students find 10 more or 10 less than a given number (1.NBT.5).
- Lesson 5-4, (page 417), students compare numbers and use symbols $<$, $>$, $=$ to express the relationship (1.NBT.3).
- Lesson 6-10, (page 566), students build numbers with base-ten blocks, identify the tens and ones within a two-digit number and exchange ten ones for a ten stick. (1.NBT.2)
- Lesson 7-3, (page 610), students use addition and subtraction to find missing addends. (1.OA.4, 1.OA.6)
- Lesson 8-2, (page 693), students partition shapes to make two equal shares (1.G.3).
- Lesson 9-1 (page 780), students measure objects using multiple copies of a smaller object (1.MD.2).

The Unit Assessments, the End of the Year Assessment and some of the Assessment Check-Ins do have a few off grade-level problems included. The following off grade-level content is assessed in the Grade 1 Materials:

- In Unit 1 Open response assessment, students count buttons. In the rubric for this assessment, students must group buttons together in consistent groups, which leads to skip-counting, a second-grade skill (2.NBT.A.2), in order to meet or exceed expectations.
- Unit Assessment 3, page 21 in the Assessment Handbook, problem 5 assesses counting by 5's which is a Grade 2 expectation (2.NBT.A.2). Question 7 is skip counting by 2's using odd numbers, which is finding a pattern, Grade 4 standard (4.OA.C.5).
- Unit Assessment 4, page 29 in the Assessment Handbook, problem 3 assesses counting by 5's which is a Grade 2 expectation (2.NBT.A.2).
- Unit Assessment 9, page 66 in the Assessment Handbook, problem 4b, page 67, problems 5 and 6, and page 68, problem 7, assess money which is a Grade 2 expectation (2.MD.C.8).
- In the End of the Year Assessment in the Assessment Handbook, page 89, problem 1 and page 90, problem 5, assess counting by 5's which is a Grade 2 expectation (2.NBT.A.2). Page 99, problem 26, assesses defining a larger category of shapes, i.e., polygons, which is a Grade 3 expectation (3.G.A.1).
- The Assessment Check-In for Unit 3, lesson 3-9, page 277, assesses counting by 5's which is a Grade 2 expectation (2.NBT.A.2).
- The Assessment Check-In for Unit 5, lesson 5-3, page 411, assesses money which is a Grade 2 expectation (2.MD.C.8).
- The Assessment Check-In for Unit 7, lesson 7-7, page 634, assesses defining larger categories of shapes which is a Grade 3 expectation (3.G.A.1).
- Four Assessment Check-Ins for Unit 9 assess money, which is a Grade 2 expectation (2.MD.C.8). Lesson 9-2, page 786, lesson 9-3, page 794, lesson 9-6, page 813, and lesson 9-8, page 824, all assess money (2.MD.C.8).

Most of the off grade-level assessments could be removed by the teacher without affecting the sequence of learning for students. The assessments of money would need to be modified since those assessments are also assessing addition and subtraction. In Units 1, 3, 6 and 9, the teacher will need to supplement in order to assess all skills and concepts.

EARNED 2 of 2 POINTS

4/4

CRITERION (1B)

Students and teachers using the materials as designed devote the large majority[1] of class time in each grade K-8 to the major work of the grade.

The Grade 1 Everyday Mathematics materials meet expectations for devoting the large majority of class time to the major work of the grade level. The Grade 1 Everyday Mathematics engages students in the major work of the grade about 65 percent of the time.

Indicator 1b

Instructional material spends the majority of class time on the major cluster of each grade.

The instructional materials reviewed for Grade 1 meet the expectations for focus by spending the majority of the time on the major clusters of the grade. This includes all the clusters in 1.OA and 1.NBT and cluster 1.MD.A.

The Grade 1 materials do spend the majority of class time on the major clusters of the grade. Work was not calculated by units since the units spiral and are not clustered by groups of standards. Grade 1 Everyday Math includes 109 lessons, 100 of which are expected to be completed within one day. Each of the nine units includes an Open Response and Reengagement lesson which is designed to be done over two days. Progress checks are also allotted two days worth of instructional time at the end of each unit. At the lesson level, the lessons are divided into Daily Routines, Core Activities, and Practice. Each day consists of 15-20 minutes on routines, 30-45 minutes of a core activity, and 15-20 minutes of practice. Assessment days were not included in these calculations.

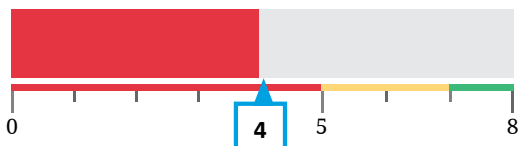
The following calculations were derived from the core activities of the lesson.

- Sixty-eight lessons out of the 109 are focused on the major work. This represents approximately 62 percent of the lessons. Additionally, another three lessons, or approximately 3 percent, are supporting work which truly supported the major work of the grade bringing the time spent on major work to approximately 65 percent.
- Thirty-one lessons out of the 109 are focused solely on the supporting work of the grade. This work was treated separately from the major work of the grade. This represents approximately 27 percent of the lessons.
- Ten lessons out of the 109 are focused on off grade-level work. This represents approximately 8 percent of the lessons. This includes: lessons 3-5 and 3-8, on counting by 5's, a Grade 2 standard; lesson 3-9, page 275, on counting by 2's, a Grade 2 expectation; lesson 3-11 on counting by 2's and 5's, a Grade 2 expectation; lesson 6-11 on exchanging money, a Grade 2 standard; and lessons 9-2, page 784, 9-3, page 788, 9-5, page 802, 9-6, page 808, and 9-8, page 823, on money, which is a Grade 2 standard.

Notes: Lesson 2-5 includes finding the missing day of the week which is not a mathematics standard. Lesson 5-3, focusing on exchanging ones for tens, comes very close to the Grade 2 standard of exchanging money. Lesson 6-7 is on the reference book; however, it is not introduced until the 6th chapter, or almost the end of the year.

EARNED 4 of 4 POINTS

COHERENCE DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 1 Everyday Mathematics partially meet the expectations for Gateway 1. The materials meet the expectations for focusing on the major work of the grade, but they do not meet the expectations for coherence. Some strengths were found and noted in the coherence criterion as the instructional materials partially met some of the expectations for coherence. Overall, the instructional materials allocate enough time to the major work of the grade for Grade 1, but the materials do not always meet the full depth of the standards.

The instructional materials reviewed for Grade 1 do not meet the expectations for being coherent and consistent with CCSSM. The instructional materials have enough materials to be viable for a school year, but they do not always meet the depth of the standards. The majority of instructional materials do not have supporting content enhancing focus and coherence simultaneously, but they do have objectives which are clearly shaped by the CCSSM. Overall, the instructional materials for Grade 1 do not exhibit enough characteristics of coherence.

Indicator 1c

Supporting content enhances focus and coherence simultaneously by engaging students in the major work of the grade.

The materials partially meet the expectations for having the supporting content enhance focus and coherence by engaging students in the major work of the grade. The majority of supporting work is mostly treated separately and does not always support the major work of the grade. The following details the lessons and practices with supporting work.

- Unit one has three lessons and five practices which are supporting work, and only one lesson, 1-8, supports major work. Lesson 1-8 connects supporting work with tally charts (1.MD.4) with addition and subtraction and counting. In Lesson 1-7, tally marks for data, tally marks are treated mainly as a means to represent data with little support for using tally marks as a counting tool. In Lesson 1-9, Building with base 10 blocks, blocks are used to build structures with no support for the base-10 numbering system which they represent.
- Unit two has two lessons and two practices which are supporting work, and only one practice, 2-2, supports major work.
- Unit three has one lesson which is supporting work, and it does not support the major work.
- Unit four has two lessons which are supporting work, and both lessons, 4-5 and 4-6, support major work. Lesson 4-5 connects supporting work with tally charts (1.MD.4) with addition and subtraction and counting. Lesson 4-6 connects supporting work with bar graphs (1.MD.4) with addition and subtraction and counting.
- Unit six has two lessons and one practice which are supporting work, and they do not support the major work. In lesson 6-7. My Reference Book is introduced as a tool and sections are discussed, but the book is not used in a real problem-solving or classroom mathematics situation until this lesson. Connections to a tool that could be helpful for students should be made earlier in the year.
- Unit seven has four lessons which are supporting work, and they do not support major work.
- Unit eight has nine lessons and six practices which are supporting work, and no lessons or practices support major work.
- Unit nine has two lessons and five practices which are supporting work, and no lessons or practices support major work.

EARNED 1 of 2 POINTS

Indicator 1d

The amount of content designated for one grade level is viable for one school year in order to foster coherence between grades.

The instructional materials reviewed for Grade 1 meet the expectations for the amount of content designated for one grade level being viable for one school year in order to foster coherence between grades. The suggested pacing includes 109 days of lessons (100 lessons total) and another 24 days allowed for assessment, making 133 days of materials. According to the Teacher Guide on page xxxvi, each lesson is

expected to last between 60-70 minutes. The online curriculum states to use Friday's as a Flex Day for games and intervention work. With Fridays being included as Flex Days, this curriculum allows for approximately 33 to 34 weeks of instruction.

EARNED **2 of 2** POINTS

Indicator 1e

Materials are consistent with the progressions in the Standards i. Materials develop according to the grade-by-grade progressions in the Standards. If there is content from prior or future grades, that content is clearly identified and related to grade-level work ii. Materials give all students extensive work with grade-level problems iii. Materials relate grade level concepts explicitly to prior knowledge from earlier grades.

The instructional materials reviewed for Grade 1 do not meet the expectation for being consistent with the progressions in the standards. Content from prior grades is not clearly identified or connected to grade-level work, and students are not given extensive work with grade-level problems. Material related to future, grade-level content is not clearly identified or related to grade-level work. The Grade 1 materials have several instances where future grade-level content is present and not identified as such. For example, unit 3, lesson 5 is on skip counting by two's and five's, which is a Grade 2 standard, 2.NBT.A.2, and does not state it is future grade-level work or how it would relate to work of Grade 1. The same is true of unit 9 lesson 2, which is on solving money problems, a Grade 2 standard, 2.MD.C.8. This is true of all of the instances of off grade-level work.

The content does not always meet the full depth of standards. This mainly occurs because of a lack of lessons addressing the full depth. For example, there are three lessons which address 1.OA.2; however, only one of them, 4-10, is a full lesson. The other two are a very small part of the core lesson. Another example is 1.NBT.5; only four lessons have students mentally finding 10 more or 10 less than a number. A third example is 1.OA.1; only 2 lessons out of 17 have students solving addition and subtraction to 20. Three of the seventeen reach sums of 12, and the rest all only use within 10. Two lessons, 4-8 and 4-10, are the only lessons for properties of operations. Geometry is given slightly more attention than place value throughout the materials, and Geometry is given significantly more attention than measuring and iterating length units.

Everyday Mathematics Grade 1 materials do not provide extensive work with grade-level standards. For example, the instructional materials do not provide extensive work with the following standards:

- 1.OA.A.1: Much of the work in this series focuses on addition and subtraction within 10, not 20.
- 1.NBT.A.1: Most of the lessons in this series focus on numbers under 100, not 120. Lessons where students either work with or at least see numbers over 100 occur in 1-11, 3-8, 5-6 (only in the homework); 5-12 (using the number grid to subtract); and lesson 9-9 (homework to 107). The Number of the Day Routine does give the student work with numbers larger than 100.
- 1.OA.A.2: Word problems with 3 addends are only found in two lessons, 4-10 and 6-6.
- 1.NBT.B.2: Only lessons 5-1, 5-2 and 5-3 address this standard with a few more questions in math journal and/or homework.

In lessons where prior knowledge is needed, the instructional materials do not state that prior knowledge is being used. When future grade-level concepts are introduced, there is no mention that the concept will be used in future grades. If the teacher uses the spiral trace at the beginning of the lesson or unit, the teacher will know where prior knowledge is used based on the spiral trace and when the student will use the skill/concept again in the future. For example, in lesson 3-8 on page 272, the spiral snapshot shows how the lessons progress through the materials. The spiral trace is not extensive and does not show where the students' learning is really headed. It is listed by lessons and not connecting standards. At the beginning of each unit, the spiral trace provides an explanation of what will occur by the end of the unit, but the spiral trace does not explain any further and does not connect to the next standard.

EARNED **0 of 2** POINTS

Indicator 1f

Materials foster coherence through connections at a single grade, where appropriate and required by the Standards i. Materials include learning objectives that are visibly shaped by CCSSM cluster headings. ii. Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important.

The instructional materials reviewed for Grade 1 partially meet the expectations for fostering coherence through connections at a single grade, where appropriate and when the standards require. Overall, materials include learning objectives that are visibly shaped by CCSSM cluster headings, but there are missed opportunities to provide problems and activities that connect two or more clusters in a domain or two or more domains when these connections are natural and important.

The materials do include learning objectives which are visibly shaped by CCSSM cluster headings. In the teacher's lesson guide on page EM3, the materials show the Goals for Mathematical Content for Everyday Math and how they align to the CCSSM. From this alignment it is apparent the goals are shaped by the CCSSM cluster headings.

Instructional materials shaped by cluster headings include the following examples:

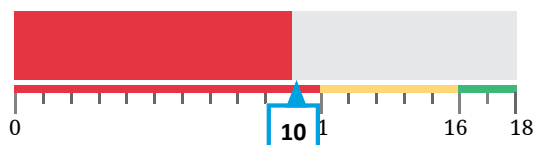
- Lesson 3-7: "More Counting to Add and Subtract," is shaped by 1.OA.C.
- Lesson 5-2: "Digits and Place Value," is shaped by 1.NBT.B.
- Lesson 7-7: "Exploring Attributes, Fractions, and Salute!" is shaped by 1.NBT.A.
- Lesson 8-8: "Time to the Half Hour," is shaped by 1.MD.B.

While the materials have many instances where two or more domains are connected, often the connections are only surface-level connections. For example, Lesson 2-3 shows a connection between 1.OA.6 and 1.NBT.1 The lesson has students adding within 10 but does not truly have them counting within 120. Lesson 5-4 shows a connection between 1.OA.6, 1.OA.7 and 1NBT.3. The lesson has students comparing numbers using the symbols for less than, greater than, and equal to, but it does not have students adding and subtracting. The connection between place value and adding or subtracting is very rare, and no explicitly stated connections could be found. Other times, lessons provide more than one standard or cluster that will be worked on, but these standards are mostly worked on separately in the different portions of the lesson, such as warm-ups, daily routines, focus lesson, and practice. Additionally, 60 of the lessons are only aligned to one domain.

A few lessons were found to have connections among domains. Lesson 1-8 includes students collecting, organizing, and interpreting data (1.MD.4) and using that data as a context for solving comparison word problems (1.OA.1). Lesson 5-10 includes students solving comparison word problems (1.OA.1) and understanding the relationship of addition and subtraction (1.OA.4) as they use either or both operations to solve (page 451).

EARNED 1 of 2 POINTS

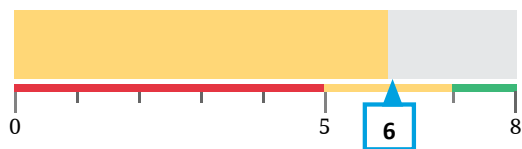
GATEWAY 2: RIGOR AND MATHEMATICAL PRACTICES DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 1 do not meet the expectations for rigor and MPs. The instructional materials partially meet the expectations for the criterion on rigor and balance but do not meet the expectations of the criterion on practice-content connections. Overall, the instructional materials are stronger in regards to conceptual understanding and application.

RIGOR AND BALANCE

PARTIALLY MEETS EXPECTATIONS



The instructional materials reviewed for Grade 1 do not meet the expectations for rigor and MPs. The instructional materials partially meet the expectations for the criterion on rigor and balance but do not meet the expectations of the criterion on practice-content connections. Overall, the instructional materials are stronger in regards to conceptual understanding and application.

6/8

CRITERION (2A-2D)

Rigor and Balance: Each grade's instructional materials reflect the balances in the Standards and help students meet the Standards' rigorous expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application.

The instructional materials reviewed for Grade 2 partially meets expectations for rigor and balance. The instructional materials do not give appropriate attention to procedural skill and fluency. The materials develop conceptual understanding of the standards. Overall, because of not fully meeting expectations for procedural skill and fluency, the instructional materials do not reflect the balances in the CCSSM.

Indicator 2a

Attention to conceptual understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings.

The materials meet the expectation for developing conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings. There are good conceptual discussion pieces located throughout the materials. Some good conceptual Home-Link and practice problems exist; however, these come before the focus lessons, which, without the lesson to understand the concept, could present possible issues for the students.

Below are lessons where the full depth of conceptual understanding is addressed.

- Lesson 4-11: Students begin to compare numbers on a 100 chart in columns and rows and discuss what the numbers have in common.
- Lesson 5-1 and Lesson 5-2: Students use concrete representations (base-10 blocks) along with number grids, 100's charts, and calculators to explore place value for 10's and 1's.
- Lesson 5-6: Students fill in a 100's chart while the teacher asks about digits in the 10's and 1's places and relates this to ordering and comparing numbers.
- Lesson 6-6: Page 535 has students using double ten frames to make ten as a strategy.
- Lesson 7-1: Students explore fact families using dominoes.
- Lesson 8-2: Students explore halves by partitioning pancakes and crackers.
- Lesson 9-5: Students are asked to share their strategies and solutions for adding 55 and 35 including possible use of concrete models such as base-10 blocks, mentally counting up from the larger number, and changing to an easier number by making 10's. Students are similarly encouraged to use a strategy to subtract.
- Most lessons in the materials have a "Math Message" which targets conceptual understanding.
- Most lessons call for students to use concrete and/or visual representations when solving problems. For example, in lesson 7-5, students are introduced to the meter and are estimating and measuring lengths.

In addition, the following routines also build conceptual understanding:

- Routine 1, Number of the Day, engages students in counting concrete objects by ones, bundling and making 10's, and bundling to make 100 (which is beyond Grade 1).
- Routine 2 ,Calendar Routine, references 1.NBT.C and asks if students can "mentally find 10 less or 10 more than a date on the calendar."

Lessons which partially meets the requirements for conceptual understanding are listed below.

- Lesson 2-2 introduces 10-frames and 10-frame Top-It, which introduces students to the idea of grouping counters (dots) in groups of 10. The lesson still does not explicitly link the 10-frames to place value.
- In Lesson 5-8, students exchange base-10 blocks, exchanging 1's for 10's but are still referring to these blocks as flats, longs, and cubes, missing the connections with hundreds, tens, and ones.
- In Lesson 6-10, students work with base-10 blocks and place-value mats to solve riddles such as "show 4 longs and 6 cubes. Is this number larger or smaller than 64? How do you know?" This lesson is using the terms longs and cubes rather than 10's and one's.

Lessons which miss opportunities to develop conceptual understanding are listed below.

- Lesson 1-3 references 1.NBT.B in the Penny-Dice game. The game, if played as described in this lesson, misses an opportunity for students to group 10 counters (pennies) to show a "bundle" of 10. The "Observe" question asks "What strategies do children use to count their total pennies?" but strategies have not been explicitly taught in or before this lesson or in the game.
- Lesson 1-5 references 1.NBT.B in the Top-It Game, but it asks if students use a number line to compare numbers rather than using place value.
- In Lesson 4-5 on page 338, Building with base 10 blocks, "Children compose shapes with base-10 blocks and gain familiarity with the names, shapes, and sizes of these manipulatives." In this activity, children refer to base-10 blocks as flats, longs, and cubes rather than 100's, 10's, and 1's.

A concern does exist concerning the lack of lessons for some of the standards. Students may not be able to develop a deep conceptual understanding of the following standards:

- 1.OA.A.1: "Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem." Much of the work in this series focuses on addition and subtraction within 10.
- 1.NBT.B.2: "Understand the two digits of two-digit numbers represent 10's and 1's." Only lessons 5-1, 5-2 and 5-3 address this standard with a few more questions in math journal and/or homework.

EARNED 2 of 2 POINTS

Indicator 2b

Attention to Procedural Skill and Fluency: Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency.

The instructional materials reviewed for Grade 1 partially meet the expectation for giving attention throughout the year to individual standards that set an expectation of procedural skill and fluency. Not all fluencies for Grade 1 are addressed in the materials, and there are very few actual lessons focusing on fluencies and skills needed for first grade.

Addition and subtraction within ten is given enough time and focus for students to develop the fluency. However, the following fluencies are not given the time and focus needed:

- 1.NBTA.1: "Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral." Most of the lessons in this series focus on numbers under 100. Lessons where students either work with or at least see numbers over 100 occur in 1-11, 3-8, 5-6 (only in the homework), 5-12 (using the number grid to subtract), and lesson 9-9

(homework to 107). Number of the day Routine does give the student work with numbers larger than 100.

- 1.OA.A.2: Word problems with three addends. This only occurs in two lessons, 4-10 and 6-6.

Additionally, lesson 2-4 teaches students to subtract the smaller number from the larger to find the difference; this procedure will set students up for procedural misconceptions later in mathematics.

There are some places where fluency is given attention in the materials.

- Most lessons in the materials have a "Mental Math and Fluency" piece which allows for students to practice fluencies required in first grade.
- Several online games help students with the expectation of fluency, including Top It, Plus or Minus, Beat the Computer, and Bingo.
- Most lessons have a "Practice" section which has students practicing skills and building fluency. For example, lesson 7-3, page 635 is "Drawing a Picture Graph."
- Online is a reference sheet called "Do Anytime Activities" with suggestions to help students build fluencies at home.

EARNED 1 of 2 POINTS

Indicator 2c

Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications of the mathematics, without losing focus on the major work of each grade

The materials meet the expectation for being designed so that teachers and students spend sufficient time working with engaging applications of the mathematics, without losing focus on the major work of each grade.

Each unit contains a two-day "Open Response" lesson which engages students in application of mathematics. For example, lesson 4-4 has students engaging in application of the mathematics by measuring markers. Online in the resource section, several "Projects" are available to help students with application of mathematics.

Word-problem contexts are generally familiar to first grade students including children playing, classroom materials, books, fish and dogs. In addition to word problems provided within some of the daily warm ups (24 warm ups include word problems) and focus lessons, the student journals provide many opportunities to engage students in working with word problems. Add-to, take-from, and result unknown problems are the most frequently presented.

Home-links and math journal problems focus on one-step story problems. The number of one-step story problem lessons create a good sense of application, but only for numbers under 10. This is an area of concern.

EARNED 2 of 2 POINTS

Indicator 2d

Balance: The three aspects of rigor are not always treated together and are not always treated separately. There is a balance of the 3 aspects of rigor within the grade.

The Grade 1 Everyday Mathematics instructional materials partially meet the expectations for balance. Overall, the three aspects of rigor are neither always treated together nor always treated separately within the materials. However, the lack of lessons for procedural skills and fluency do not allow for a balance of

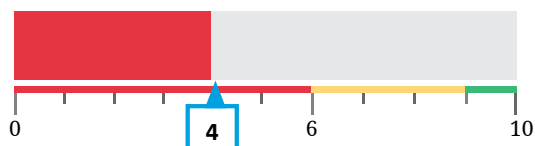
the three aspects.

- 18 lessons focus on Application with 3 lessons focused on work outside of the grade level.
- "Daily Warm Ups," including "Mental Math and Fluency," and "The Number of the Day Routine" directly focus on math fact fluency.
- Some lessons in this series blend application and conceptual understanding. Some lessons use conceptual knowledge to help build procedural skill and fluency. However, there needs to be more link between conceptual understanding and procedural skill and fluency.

In terms of balance, the lessons do not provide as much instruction for fluency or application as they do for conceptual understanding. Conceptual understanding gets much more emphasis than the other two aspects of rigor.

EARNED **1 of 2** POINTS

MATHEMATICAL PRACTICE-CONTENT CONNECTIONS DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 1 do not meet the expectations for practice-content connections. The materials only partially meet the expectations for attending to all of the indicators 2e through 2g, except for 2f which did not meet expectations. Overall, in order to meet the expectations for meaningfully connecting the Standards for Mathematical Content and the MPs, the instructional materials should carefully pay attention to the full meaning of every practice standard, especially MP3, in regards to students critiquing the reasoning of other students, and the use of correct vocabulary throughout the materials.

4/10

CRITERION (2E-2G)

Practice-Content Connections: Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice

Indicator 2e

The Standards for Mathematical Practice are identified and used to enrich mathematics content within and throughout each applicable grade.

The instructional materials reviewed for Grade 1 partially meet the expectations for identifying the MPs and using them to enrich the mathematics content. Each of the standards is identified in the Grade 1 materials. The practices are not under-identified. For example, Unit 5, page 393 discusses how MP2 and MP6 unfold within the unit and lesson. Within the lesson are spots where the MPs are identified. However, within the lessons, it does not give teachers guidance on how to help students with the MPs. Because there is no guidance on implementation, it is difficult to determine how meaningful connections are made. MP3, MP4 and MP8 are the least identified in the Grade 1 materials. MP1 and MP6 are over-identified.

The Assessment Handbook includes "Mathematical Practices for Unit(s) Individual Profile of Progress" that can be used to assess practice standards. The Beginning-of-Year assessments do not identify any practice standards for assessment, and the Middle-of-Year assessment identifies MP1, MP2, MP3, MP4, MP5, MP6 and MP7 for assessment. The End Of Year assessment identifies MP1, MP2, MP3, MP4, MP6 and MP7 for assessment. MP8 is identified with only on unit assessment while MP1 is assessed in six unit assessments.

EARNED **1 of 2** POINTS

Indicator 2f

Materials carefully attend to the full meaning of each practice standard

The First Grade Everyday Mathematics do not meet the expectation for carefully attending to the full meaning of each practice standard. They do not treat each MP in a complete, accurate, and meaningful way. The lessons do not give teachers guidance on how to implement the standards. Some lessons are attached to standards without having students actually attending to them.

Below are examples where the full intent of the MPs is not met.

- MP1: Lesson 1-2 cites MP1; however, simply having students know a faster way to count their fingers is not having students persevere in a problem. Lesson 2-3 cites MP1; however, simply having students count and model tally marks is not having students make sense of problems or persevere in problem solving. Lesson 3-6 cites MP1; however, telling students to make jumps on a number line does not have students making sense of problems or persevering in solving them. Lesson 6-3 cites MP1; however, simply having students determine if an equation is true or false does not have them making sense of problems or persevering in solving them.
- MP4: Lesson 1-8 cites MP4; however, telling students to use tally marks is not having students choose an appropriate mathematical model, which is the intent of the MP. Lesson 2-2 cites MP4; however, again students are told to use tally marks. Lesson 3-3 cites MP4, and again the lesson tells the students how to model the mathematics.
- MP5: Lesson 1-3 cites MP5; however, telling the students to use the pattern block template is not having students choose an appropriate tool, which is the intent of the MP. Lesson 2-7 cites MP5; however, telling students to use their calculators is not having students choose an appropriate tool. Lesson 3-5 cites MP5 but tells students to use number lines instead of having students choose an appropriate tool. Lesson 3-11 tells students to use calculators instead of letting students choose an appropriate tool. Lesson 6-7 cites MP5; however, telling students to use the Table of Contents is not having students choosing an appropriate tool.
- MP6: Lesson 1-9 cites MP6; however, simply asking students "how many of each type of base 10 blocks were used and how many in all" is not having students attend to precision. Lesson 2-4 cites MP6; however, simply asking students "which problems were the easiest to solve, which problems were hardest to solve, and can you think of any other strategies that might have helped with the hardest problems?" is not having students attending to precision. Lesson 7-2 cites MP6; however, having students race to find the answer on calculators is not having them attend to precision.
- MP8: Lesson 2-6 cites MP8; however, telling students to restate the turn-around rule and counting strategy in their own words is not having students look for and express regularity in repeated reasoning. Lesson 6-4, cites MP8, but telling students that a strategy is called near doubles is not having them look for and express regularity in repeated reasoning.

EARNED **0 of 2** POINTS

Indicator 2g.i

Materials prompt students to construct viable arguments and analyze the arguments of others concerning key grade-level mathematics detailed in the content standards.

The materials partially meet the expectation for prompting students to construct viable arguments and analyze the evidence of others. Although the materials at times prompt students to construct viable arguments, the materials miss opportunities for students to analyze the arguments of others, and the materials rarely have students do both together. There are some questions that do ask students to explain their thinking on assessments and in the materials. Sometimes there are questions asking them to look at other's work and tell whether the student is correct or incorrect and explain.

The following are examples of MP

3 in the assessments:

- Unit 1 Assessment: Students explain their thinking in items 3 and 6, or two of the eight problems.
- Unit 2 Assessment: Students explain their thinking in items 1, 2, 4 and 6, or four of the six problems. They explain their thinking in both problems on the Unit Challenge and items 10 and 11, two of the 11 problems on the Cumulative Assessment.
- Unit 3 Assessment: Students explain their thinking in items 1, 3, and 5, or three of the seven problems, in one of two problems in the unit challenge and in the open response problem.
- Unit 4 Assessment: Students explain their thinking in one of six problems, in one problem on the unit challenge, and three of seven problems on the cumulative assessment.
- Unit 5 Assessment: Students explain their thinking on items 8, 12 and 13, or three of 14 problems and on one of two problems on the unit challenge and on one of three problems on the open response assessment.
- Unit 6 Assessment: Students explain their thinking on items 3, 4 and 10, or three of 11 problems, and on two of 12 problems on the cumulative assessment.
- Unit 7 Assessment: Students explain their thinking on items 3 and 4, or two of 12 problems, and on one of two problems on the open response assessment.
- Unit 8 Assessment: Students explain their thinking or critique another person's thinking on item 9, one of 17 problems and items 3, 4, 7 and 8, four of eight problems on the cumulative assessment.
- Unit 9 Assessment: Students explain their thinking on items 4, 6, 7 and 9, four of nine problems, and on the open response assessment.
- The mid-year assessment includes 6 of 14 problems that ask students to justify, explain, show their thinking or critique reasoning of others.
- The end-of-year assessment includes 8 of 28 problems that ask students to justify, explain, show their thinking or critique reasoning of others.

Examples of opportunities to construct viable arguments: (All pages reference Student Journals)

- Lesson 2-2, page 4: "How did you figure out how many more?"
- Lesson 2-5, page 8: "Tell your partner how you know."
- Lesson 3-2, page 23: "How does solving $3+5$ help you solve $5+3$?"
- Lesson 3-9, page 36: "How did you know what numbers to write?"
- Lesson 4-1, page 43: "Tell your partner how you know;" page 45: "Can you count up to find the answer? How?"
- Lesson 4-4, page 52: "Explain how you can tell how many without counting."
- Lesson 7-7, page 147: "How do you know what to label the name-collection box?"
- Lesson 7-8, page 149: "How are these pictures alike?"
- Lesson 7-10, page 153: "Raoul wants to show [10's] in the box. Is that right or wrong? Explain."
- Lesson 8-1, page 159: "How do you know that they both show the same number?"
- Lesson 8-2, page 161: "How can you find the rule in problem 4?"
- Lesson 8-4, page 165: "Explain how you know;" page 166: "How can knowing $7+7$ help you solve $8+6$?"

Examples of opportunities to analyze the arguments of others:

- Lesson 7-6, page 145 of the Student Journal has students explaining if both Dan's and Pam's strategy will get the same answer.

- Lesson 7-10, page 153 of the Student Journal has students explaining if Raoul's mathematical model is right or wrong and why.
- Lesson 9-6, page 201 of the Student Journal has students sharing their answers with a partner and checking answers.

EARNED **1 of 2** POINTS

Indicator 2g.ii

Materials assist teachers in engaging students in constructing viable arguments and analyzing the arguments of others concerning key grade-level mathematics detailed in the content standards.

The materials partially meet the expectation for assisting teachers in engaging students in constructing viable arguments and analyzing the arguments of others concerning key grade-level mathematics detailed in the content standards. In the materials, usually only one right answer is available, and there is limited teacher guidance on how to lead the discussion besides a question to ask. Many missed opportunities to guide students in analyzing the arguments of others exist. Students spend time explaining their thinking but not always justifying their reasoning and creating an argument.

The following are examples of lessons aligned to MP3 that have missed opportunities to assist teachers in engaging students in constructing viable arguments and analyzing the arguments of others:

- In routine number 4, the teacher is asked to have children support their arguments about weather trends based on data from the weather bar graph. No further direction is given.
- Lesson 1-8 cites MP3, but it only gives the teachers questions with right and wrong answers. Additionally, there is no direction for the teacher to help with facilitating a discussion.
- In lesson 4-1, there is a question for teachers to ask, and there is a little direction for the teacher. Additionally, there is no direction on how to get students to analyze the arguments of others.
- Lesson 4-2 does a good job providing questions so that teachers can help students guide constructing their own arguments; however, it has a missed opportunity for students to analyze the arguments of others.
- Lessons 4-7, 4-11, 5-1, and 5-4 cite MP3; however, they do not give the teacher enough direction.
- Lesson 6-7 cites MP3; however, simply asking students to tell what they find interesting about the reference book is not participating in constructing arguments or analyzing the arguments of others.

MP3 is well represented in Lesson 5-8. The teacher directions say to "have children work in groups to make arguments about which object is taller, citing evidence that goes beyond just looking at the objects" (page 439) and includes a sentence frame to help students prepare their arguments.

EARNED **1 of 2** POINTS

Indicator 2g.iii

Materials explicitly attend to the specialized language of mathematics.

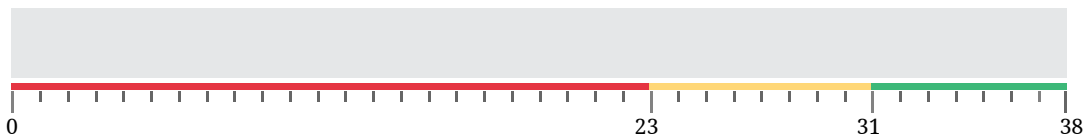
The instructional materials reviewed for Grade 1 partially meet the expectations for explicitly attending to the specialized language of mathematics. Overall, the materials for both students and teachers have multiple ways for students to engage with the vocabulary of mathematics; however, often the correct vocabulary is not used.

- Each unit includes a list of important vocabulary in the unit organizer which can be found at the beginning of each unit.

- Vocabulary terms are bolded in the teacher guide as they are introduced and defined but are not bolded or stressed again in discussions where students might use the term in discussions or writing.
- Each regular lesson includes an online tool, "Differentiating Lesson Activities." This tool includes a component, "Meeting Language Demands," that includes vocabulary, general and specialized, as well as strategies for supporting beginning, intermediate, and advanced ELLs.
- The units do not have lessons or activities dedicated to developing mathematics vocabulary.
- Terms are introduced in the text of the lessons. For instance, when the term "vertices" first appears, the instructions to students are to put their finger on the shape that has exactly four vertices, or corners (1-3, page 65).
- Everyday Math comes with a Reference book that uses words, graphics, and symbols to support students in developing language.
- Correct vocabulary is often not used. For example, turn-around fact is used rather than the term commutative property, number sentence is used instead of equation, name-collection box instead of equivalent equations or equivalent expressions, and big cube instead of base-ten block.

EARNED **1 of 2** POINTS

GATEWAY 3: USABILITY DID NOT REVIEW

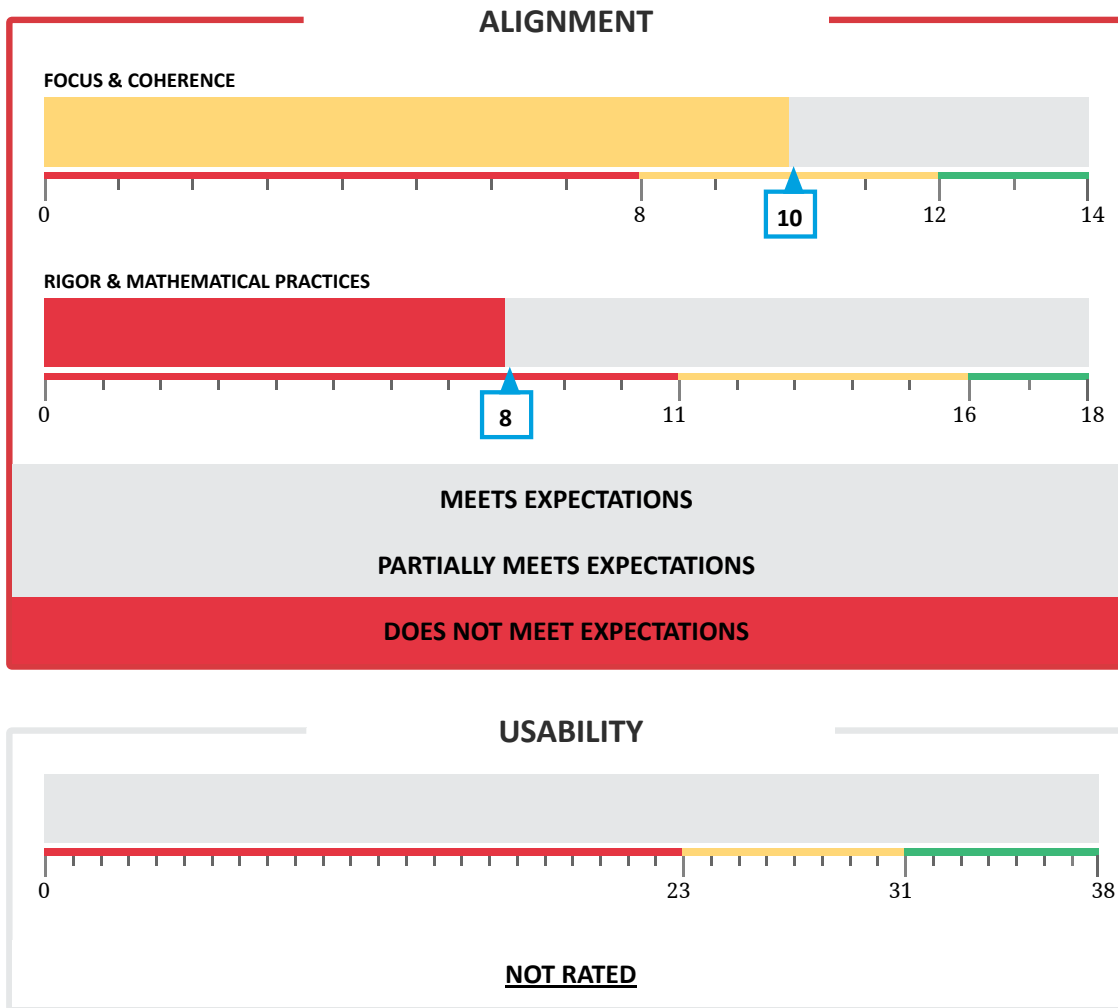


This material was not reviewed for Gateway Three because it did not meet expectations for Gateways One and Two

GRADE 2 EVERYDAY MATH GRADE 2

PUBLISHER: MCGRAW-HILL EDUCATION SUBJECT: MATH

TEACHER ED. 978-0-02-140995-2, STUDENT ED. 978-0-02-143082-6



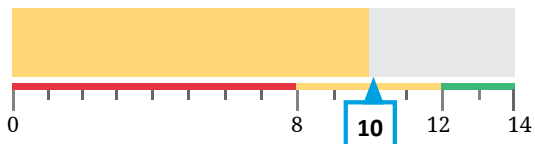
Part of the lesson 4-8 is to read the book *How Big is a Foot?* This book does not come with the materials and would need to be an additional purchase.

ALIGNMENT

EVERYDAY MATH GRADE 2 GRADE 2 DOES NOT MEET EXPECTATIONS FOR ALIGNMENT

The instructional materials reviewed for Grade 2 do not meet the expectations for alignment to the CCSSM. The instructional materials partially meet the expectations for Gateway 1 as they appropriately focus on the major work of the grade but did not always demonstrate coherence within the grade and across other grades. The instructional materials do not meet the expectations for Gateway 2 as they did not appropriately address rigor within the grade-level standards, and there are missed opportunities in the materials when it comes to attending to the full meaning of the standards for mathematical practice.

GATEWAY 1: FOCUS & COHERENCE
PARTIALLY MEETS EXPECTATIONS



The instructional materials reviewed for Grade 2 *Everyday Mathematics* partially meet the expectations for Gateway 1. The materials meet the expectations for focusing on the major work of the grade, but they do not meet the expectations for coherence. The instructional materials can easily be adjusted so no future, grade-level content is assessed. Some strengths were found and noted in the coherence criterion as the instructional materials partially met some of the expectations for coherence. Overall, the instructional materials allocate enough time to the major work of the grade for Grade 2, but the materials do not always meet the full depth of the standards.

FOCUS MEETS EXPECTATIONS



The Grade 2 *Everyday Mathematics* materials do meet the expectations for focus. The material's assessments could be modified so that future grade-level standards are not assessed, and the materials devote a majority of the time to the major work of the grade. Overall, the materials meet the expectations for focus.

2/2 CRITERION (1A)

Materials do not **assess** topics **before** the grade level in which the topic should be introduced.

The Second Grade *Everyday Mathematics* materials meet the expectations for not assessing topics before the grade level in which they should be introduced. Future, grade-level topics are assessed; however, those assessments could be removed without affecting the progression of learning for students. The number of future grade-level assessments is limited and could easily be removed by the teacher.

Indicator 1a

The instructional material **assesses** the grade-level content **and, if applicable**, content from earlier grades. Content from future grades may be introduced but students should not be held accountable on assessments for future expectations.

The instructional materials reviewed for Grade 2 meet expectations for assessment because above grade-level assessment items could be modified or omitted without a significant impact on the underlying structure of the instructional materials. Probability, statistical distributions, and/or similarity, transformations and congruence do not appear in the Grade 2 materials.

The program allows for a Beginning-of-the-Year, Mid-year, End-of-the-Year Assessment, and Unit Assessments, which mostly assess the Grade 2 standards. There are also nine unit assessments/progress checks. The unit assessments/progress checks have portions for self assessment, unit assessment, open response assessment, cumulative assessment, and a challenge. These assessments can be found in the Assessment Handbook. The Individual Profile of Progress for tracking and class progress are present in both paper (pages 100-112 in the Assessment Handbook) and digital formats. A Facts Record Sheet exists to monitor student fluency in the Assessment Handbook on page 98. Most lessons have an Assessment Check-in that can be used as either formative or summative assessment as stated in the implementation guide.

Assessment check-ins are part of most lessons and mostly assess grade-level content. Examples include:

- Unit 1, Lesson 1-11: 2.NB.A.4 - Compare values of two and three digit numbers (page 124).
- Unit 2, Lesson 2-3: 2.OA.B.2 - Develop fact fluency of doubles and facts of ten, with students assessed through individual and/or small group interviews (page 166).
- Unit 3, Lesson 3-10: 2.OA.B.2 - Develop fact fluency building on student understanding of 10 to

decompose numbers strategically to subtract to ten and from ten (page 308).

- Unit 4, Lesson 4-4: 2.NBT.A.3 - Build and represent two- and three-digit numbers (page 358).
- Unit 5, Lesson 5-4: 2.MD.C.8 - Use coins to show values and add and subtract with money (page 466).
- Unit 6, Lesson 6-2: 2.OA.A.1 - Solve comparison word problems (page 542).
- Unit 8, Lesson 8-6: 2.G.A.2 - Partition a rectangle into rows and columns with equal size squares page 728.

The Unit Assessments, the Middle of the Year Assessment, the End of the Year Assessment and some of the Assessment Check-Ins do have a few off grade-level assessments included. The following off grade-level content is assessed in the Grade 2 Materials:

- Unit 8 Assessment, page 53 in the Assessment Handbook, problem 3, assesses parallel lines at the Grade 4 level (4.G.A.1).
- Unit 8 Assessment, page 56 in the Assessment Handbook, problem 1, assesses multiplication at the Grade 3 level (3.OA.A.1).
- Unit 9 Assessment, page 66 in the Assessment Handbook, problem 11, and page 67 in the Assessment Handbook, problem 2, assesses partitioning shapes at the Grade 3 level (3.G.A.2).
- Unit 9 Assessment, page 67 in the Assessment Handbook, problems 1b and 1c, assesses multiplication, a Grade 3 standard (3.OA.A.1).
- The Middle-of-the-Year Assessment in the Assessment Handbook, page 79, problem 6a, and page 80, problem 10, assesses number patterns at the Grade 4 level (4.OA.C.5).
- The End of the Year Assessment in the Assessment Handbook, page 97, problem 24, assesses partitioning at the Grade 3 level (3.G.A.2).
- The Assessment Check-In on page 803 has students measuring to the half-inch (3.MD.B.4).
- The Assessment Check-In for Lesson 9-5, on page 230 of the Math Journal, asks students to write 4-digit numbers in expanded form and compare them. 2.NBT.3 and 2.NBT.4 both specify "numbers to 1000 or two three-digit numbers."
- The Assessment Check-Ins for Lessons 9-10 and 9-11, on pages 242 and 246 of the Math Journal, ask students to write multiplication models, a Grade 3 expectation (3.OA.A.1).
- The Assessment Check-Ins for Lessons 8-1, 8-2, and 8-4, on pages 694, 700, and 714, ask students to identify parallel lines and right angles, a Grade 4 expectation (4.G.A.1).

All of the off grade-level assessments could be removed by the teacher without affecting the sequence of learning for students.

Note:

- Assessment Check-in on page 153 of the teacher manual refers to bill combinations on page 19 of Math Journal 1. However, the bills are on page 17, and page 19 is an addition number story.
- Unit 5 Assessment question 9 has a question mark on the blank, this could be a typo.

EARNED 2 of 2 POINTS

4/4

CRITERION (1B)

Students and teachers using the materials as designed devote the large majority[1] of class time in each grade K-8 to the major work of the grade.

The Grade 2 Everyday Mathematics materials do meet expectations for devoting the large majority of class time to the major work of the grade level. In Grade 2, the materials should engage students in the major work of the grade 65-85 percent of the time. The Second Grade Everyday Mathematics engages students in the major work of

the grade about 72 percent of the time.

Indicator 1b

Instructional material spends the majority of class time on the major cluster of each grade.

The instructional materials reviewed for Grade 2 meet the expectations for focus by spending the majority of the time on the major clusters of the grade. This includes all the clusters in 2.NBT and clusters 2.OA.A, 2.OA.B, 2.MD.A and 2.MD.B.

The Grade 2 materials do spend the majority of class time on the major clusters of the grade. Work was not calculated by units since the units spiral and are not clustered by groups of standards. At the lesson level, the lessons are divided into Daily Routines, Core Activities, and Practice. Each day consists of 15-20 minutes on routines, 30-45 minutes of a core activity, and 15-20 minutes of practice. Assessment days were not included in these calculations. Additionally, the Open Response Lessons were counted as two lessons.

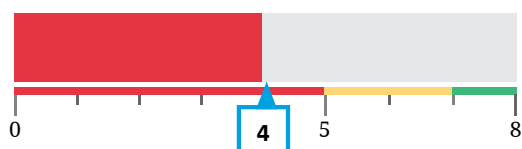
There are nine units with 10-13 lessons per unit. Each unit has a 2-day open response lesson. There are also two days provided for a progress check at the end of each lesson. Including the two days for open response lessons, there are 107 days (98 lessons total) and another 18 days allowed for assessment, making 125 days worth of materials.

The following calculations were derived from the core activities of the lesson.

- Seventy-eight lessons out of the 108 are focused on the major work. This represents approximately 72 percent of the lessons.
- Twenty-seven lessons out of the 108 are focused on the supporting work of the grade. This work was treated separately from the major work of the grade. This represents approximately 25 percent of the lessons.
- Three lessons out of the 108 are focused on off-grade level work. This represents approximately 3 percent of the lessons. This includes: lesson 9-4, page 799, on measuring to the 1/2 inch, a Grade 4 standard; lesson 1-10, "Skip Counting with a Calculator", counting by 3's, 4's, 6's and 9's, which would be a Grade 3 standard; and Lesson 8-9 concentrates on changing arrays and repeated addition to multiplication problems, with no mention of preparing students for the Grade 3 standard.

EARNED 4 of 4 POINTS

**COHERENCE
DOES NOT MEET EXPECTATIONS**



The instructional materials reviewed for Grade 2 *Everyday Mathematics* partially meet the expectations for Gateway 1. The materials meet the expectations for focusing on the major work of the grade, but they do not meet the expectations for coherence. The instructional materials can easily be adjusted so no future, grade-level content is assessed. Some strengths were found and noted in the coherence criterion as the instructional materials partially met some of the expectations for coherence. Overall, the instructional materials allocate enough time to the major work of the grade for Grade 2, but the materials do not always meet the full depth of the standards.

4/8

CRITERION (1C-1F)

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

The instructional materials reviewed for Grade 2 did not meet the expectations for being coherent and consistent with CCSSM. The instructional materials do have enough materials to be viable for a school year, but they do not always meet the depth of the standards. The majority of instructional materials do not have supporting content enhancing focus and coherence simultaneously, but they do have objectives which are clearly shaped by the CCSSM. Overall, the instructional materials for Grade 2 do not exhibit enough characteristics of coherence.

Indicator 1c

Supporting content enhances focus and coherence simultaneously by engaging students in the major work of the grade.

The instructional materials reviewed for Grade 2 partially meet expectations that supporting content enhancing focus and coherence by engaging students in the major work of the grade. In some cases, the supporting work enhances and supports the major work of the grade level, and in others, it does not.

At times supporting content does enhance focus and coherence by engaging students in the major work of the grade. Examples of the connections between supporting work and major work include the following:

- Lesson 4-2 is focused on students telling time to the nearest five minutes (2.MD.7) and connects telling time to counting by 5's (2.NBT.2).
- Lessons 7-7 and 7-8 focus on students collecting data and plotting the data on line plots (2.MD.9) and connects with calculating the difference between the different data sets (2.NBT.5).

At times, supporting work does not enhance and support the major work of the grade. At times, standards listed at the beginning of each unit are logically connected to each other; however, when the specific work of the unit and lessons is examined, some connections are missed or not specifically noted for teacher or students. Also, many lessons address supporting work in isolation from major work of the grade. Examples of units and lessons without connections between supporting and major work include the following:

- Lesson 1-9 is focused on odd and even numbers using 10-frames. Supporting work is treated separately from the major work of the grade in the focus lesson. A natural connection for students in Grade 2 would be to apply their work with doubles to the concept of odd and even numbers. Students could explore the concept that if a number can be decomposed (broken apart) into two equal addends or doubles addition facts (e.g., $10 = 5 + 5$), then that number (10 in this case) is an even number. This connection is not made.
- Lesson 2-1 introduces place value through 100 using money, but it's not clearly connected back to all whole numbers which would be the natural connection to major work.
- Lessons 4-1 and 4-3 focus on supporting work of the grade. As the focus lesson, supporting work is treated separately from the major work of the grade.
- Lesson 5-5 focuses on arrays and repeated addition which is supporting work of the grade. Supporting work in the focus lesson is treated separately from the major work.
- Lesson 6-10 focuses on supporting work of the grade but is not tied to the major work of the grade.
- Lesson 7-9 is focused on supporting work of the grade and does not support the major work of the grade.
- Lessons 8-1, 8-2, 8-3, 8-4, 8-5, 8-6, 8-7, and 8-11 focus on supporting work of the grade. These focus lessons are treated separate from the major work of the grade level.
- Lessons 9-1 and 9-3 focus on supporting work of the grade with no connection to the major work of the grade presented.

EARNED 1 of 2 POINTS

Indicator 1d

The amount of content designated for one grade level is viable for one school year in order to foster coherence between grades.

The instructional materials reviewed for Grade 2 meet the expectations for the amount of content designated for one grade level being viable for one school year in order to foster coherence between grades. The suggested pacing includes 109 days of lessons (100 lessons total) and another 24 days allowed for assessment, making 133 days of materials. According to the Teacher Guide on page xxxvi, each lesson is expected to last between 60-70 minutes. The online curriculum states to use Friday's as a Flex Day for games and intervention work. With Fridays being included as Flex Days, this curriculum allows for approximately 33 to 34 weeks of instruction.

EARNED 2 of 2 POINTS

Indicator 1e

Materials are consistent with the progressions in the Standards i. Materials develop according to the grade-by-grade progressions in the Standards. If there is content from prior or future grades, that content is clearly identified and related to grade-level work ii. Materials give all students extensive work with grade-level problems iii. Materials relate grade level concepts explicitly to prior knowledge from earlier grades.

The instructional materials reviewed for Grade 2 do not meet the expectation for being consistent with the progressions in the standards. Content from prior grades is not clearly identified or connected to grade-level work, and students are not given extensive work with grade-level problems.

Material related to future, grade-level content is not clearly identified or related to grade-level work. The second grade materials have three instances where future grade-level content is present and not identified as such. This includes: lesson 9-4 on page 799, on measuring to the $\frac{1}{2}$ inch, a third grade standard (3.MD.B.4); lesson 1-10 "Skip Counting with a Calculator", counting by 3's, 4's, 6's and 9's which would be a Grade 3 standard (3.OA.D.9); and Lesson 8-9 on changing arrays and repeated addition to multiplication problems, with no mention of preparing students for the third grade standard (3.OA.A.3).

The content does not always meet the full depth of standards. This mainly occurs because of a lack of lessons addressing the full depth. For example, there are seven lessons which address 2.OA.1; however, only three of them are subtraction. The others are addition. Additionally, the majority of the subtraction problems use friendly numbers and do not have students using place value understanding to prepare for use of the standard algorithm. Another example is 2.NBT.6 which has only two lessons with students adding up to four digits. A third example is 2.MD.5 which has only three lessons relating addition and subtraction to length.

Everyday Mathematics Second grade materials do not provide extensive work with grade-level standards. For example, the instructional materials do not provide extensive work with the following standards:

- 2.NBT.A.1: Lesson 2-1 introduces place value through 100 using money, but it's not clearly connected back to all whole numbers. In Lesson 4-7, the place value grid through hundreds is introduced again.
- 2.NBT.A.2: There is only one lesson that works with counting to 1000. Unit 1 provides one lesson where children create a math scroll to 1000, and then 1000 is not discussed again until lesson 9-5 where the thousand cube is introduced.
- 2.NBT.A.3: Expanded form is taught in 6-8 and reviewed in lesson 9-5. There is not a lesson teaching writing numbers to 1000 in word form, although it is stated in the standard. Students are only asked to put numbers in word form on eight questions in the series in either Math Journals or Home-links. 1000 is not introduced until lesson 9-5.
- 2.NBT.B.7: Subtraction strategies for multi-digit numbers are not shown until lessons 9-6 and 9-7. Addition strategies based on models are not introduced until lesson 6-7.

- 2.NBT.B.9: There are no problems where students are to explain how and why strategies work.
- 2.OA.B.2: It is impossible to tell if students can fluently add and subtract within 20 since no lessons focus on mental math and strategies.

In lessons where prior knowledge is needed, the instructional materials do not state that prior knowledge is being used. When future, grade-level concepts are introduced, there is no mention that the concept will be used in future grades. If the teacher uses the spiral trace at the beginning of the lesson or unit, the teacher will know where prior knowledge is used based on the spiral trace and when the student will use the skill/concept again in the future. The Spiral trace is not extensive and does not show where the students' learning is really headed. It is listed by lessons and not connecting standards. At the beginning of each unit, the spiral trace provides an explanation of what will occur by the end of the unit, but the spiral trace does not explain any further and does not connect to the next standard.

EARNED **0 of 2** POINTS

Indicator 1f

Materials foster coherence through connections at a single grade, where appropriate and required by the Standards i. Materials include learning objectives that are visibly shaped by CCSSM cluster headings. ii. Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important.

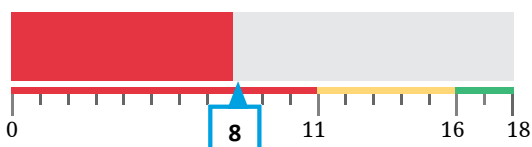
The instructional materials reviewed for Grade 2 partially meet the expectations for fostering coherence through connections at a single grade, where appropriate and when the standards require. Overall, materials include learning objectives that are visibly shaped by CCSSM cluster headings, but there are missed opportunities to provide problems and activities that connect two or more clusters in a domain or two or more domains when these connections are natural and important. The materials do include learning objectives which are visibly shaped by CCSSM cluster headings. In the teacher's lesson guide on page EM3, the materials show the Goals for Mathematical Content for Everyday Math and how they align to the CCSSM. From this alignment, it is apparent the goals are shaped by the CCSSM cluster headings. Instructional materials shaped by cluster headings include the following examples:

- Lesson 4-5, "Using Place Value to Compare Numbers," is shaped by 2.NBT.A.
- Lesson 5-6, "Mentally Adding and Subtracting 10 and 100," is shaped by 2.NBT.B.
- Lesson 7-4, "Measuring with Yards," is shaped by 2.MD.A.
- Lesson 9-5, "Reviewing Place Value," is shaped by 2.NBT.A.

While the materials have many instances where two or more domains are connected, often the connections are only surface-level connections. For example, lesson 2-8 shows a connections between 2.OA.2, 2.OA.3, 2.NBT.2, 2.NBT.7, 2.MD.6, 2.G.1 and 2.G.3. However, the lesson is divided into parts, and the parts only truly address one standard at a time. Additionally, 46 of the lessons are only aligned to one domain.

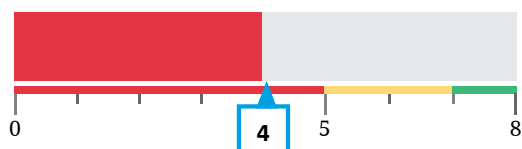
EARNED **1 of 2** POINTS

**GATEWAY 2: RIGOR AND MATHEMATICAL PRACTICES
DOES NOT MEET EXPECTATIONS**



The instructional materials reviewed for Grade 2 do not meet the expectations for rigor and MPs. The instructional materials do not meet the expectations for the indicators on rigor and balance nor do they meet the expectations of the indicators on practice-content connections. Overall, the instructional materials are stronger in regards to conceptual understanding and identifying MPs, although improvements are still needed to for those to fully meet expectations as well.

RIGOR AND BALANCE DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 2 do not meet the expectations for rigor and MPs. The instructional materials do not meet the expectations for the indicators on rigor and balance nor do they meet the expectations of the indicators on practice-content connections. Overall, the instructional materials are stronger in regards to conceptual understanding and identifying MPs, although improvements are still needed to for those to fully meet expectations as well.

4/8

CRITERION (2A-2D)

Rigor and Balance: Each grade's instructional materials reflect the balances in the Standards and help students meet the Standards' rigorous expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application.

The instructional materials reviewed for 2nd Grade do not meet expectations for rigor and balance. The instructional materials do not give appropriate attention to procedural skill and fluency or application. The materials do a better job of giving attention to conceptual understanding; however, the full meaning of conceptual understanding is still not met. Overall, because of not fully meeting expectations for procedural skill and fluency, application, and conceptual understanding, the instructional materials do not reflect the balances in the CCSSM.

Indicator 2a

Attention to conceptual understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings.

Materials partially meet the expectation for developing conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings. There are good conceptual discussion pieces located throughout the work. Some good conceptual Home-Link and practice problems exist; however, these come before the focus lessons, which, without the lesson to understand the concept, could present possible issues for the students.

Below are lessons where the full depth of conceptual understanding is addressed.

- Unit 1: 1-2 Number Line Squeeze Game; 1-5 Open Response: Number-Grid Puzzles.
- Unit 2: 2-4 The Making-10 Strategy; 2-7 Open Response: Subtraction and the Turn-Around Rule; 2-8 Exploring Addition Tools, Odd and Even and Patterns and Shapes; 2-10 Name-Collection Boxes; 2-11 Playing Name that Number.
- Unit 3: 3-1 Open Response: Using Addition Strategies; 3-2 Subtraction from Addition: Think Addition; 3-6 -0 and -1 Fact Strategies and Subtraction Top-It; Unit 3 Open Response Assessment (which allows students to represent mathematical thinking with representations and verbalization).
- Unit 4: 4-4 Numeration and Place Value; 4-5 Using Place Value to Compare Numbers; 4-6 Open Response using Base-10 Blocks to Show a Number; 4-7 Playing Target; 4-11 Explorations Matching Facts with Strategies and Exploring Arrays.
- Unit 5: 5-5 Explorations Exploring Arrays: Time, and Shapes; 5-6 Mentally Adding and Subtracting 10 and 100; 5-11 Open Response Adding Multi-digit Numbers.
- Unit 6: 6-7 and 6-8 Partial sums addition; 6-9 Open Response Subtracting with Base-10 Blocks; 6-10

Explorations Exploring Arrays.

- Unit 7: 7-1 Playing Hit the Target; 7-2 Open Response Four or More Addends; 7-3 Playing Basketball Addition; 7-4 Measuring with Yards; 7-5 Measuring with Meters.
- Unit 9: 9-5 Reviewing Place Value; 9-6 and 9-7 Expand and Trade Subtraction.

In addition, the following routine also builds conceptual understanding.

- Routine 1: Students represent the number of the day on a class number line, count the days using straws or craft sticks bundled in tens and hundreds, record the number in expanded form, and represent and count the number using coins. There are also additional add-ons that build upon place value understanding including adding and subtracting 10s or 100s. The ongoing assessment of this routine (TE page 9) also includes questions addressing 2.NBT.A and 2.NBT.B including, "Can children use the number line to represent and read the number of the day? Can children identify the value of the ones, tens, and hundreds digits? Do children understand the structure of expanded form and use it to write the number of the day?"

Lessons which partially meets the requirements for conceptual understanding are listed below.

- 1-12 Exploring Base-10 Blocks, Area, and Dominoes: The base-10 building activity with the recommended sentence frame does not encourage open-ended conceptual conversation between students to explain the whys or hows of their mathematical representations. Unit 1 Assessment provides students some opportunity to verbalize their understanding but only in the challenge, which is optional. The Challenge provides opportunity for students to create their own visual representations with showing how much money is spent.
- 2-1 Grouping by 10's- Playing the Exchange game: The game involves students in hands-on activities but misses opportunities for students to have conversations about the exchanges being made. The Unit 2 Assessment provides one opportunity for students to verbalize their mathematical thinking and no opportunities for students to create concrete or visual mathematical representations.
- The Unit 3 Assessment allows the student to verbalize their mathematical thinking but does not provide opportunity for concrete or visual representation.
- 4-8 How Big is a Foot, 4-9 The Inch, 4-10 The Centimeter and 4-11 Exploration for measuring a path: These lessons do not get to the full depth of the standard which calls for students to measure and estimate lengths in standard units. Unit 4 assessment gives students opportunities to verbalize their mathematical thinking but no opportunities for students to demonstrate their understanding through concrete or visual representations.
- The Unit 5 Assessment provides students some opportunity to verbalize their understanding, but only the Open Response Assessment provides opportunity for students to create their own visual representations with showing how much money spent.
- 6-10: Exploring lengths does not meet the full depth of the standard to measure and estimate lengths. Unit 6 assessment gives students opportunities to verbalize their mathematical thinking but no opportunities for students to demonstrate their understanding through concrete or visual representations.
- The Unit 7 Assessment provides students some opportunity to verbalize their understanding, but only the Open Response Assessment provides opportunity for students to alter a visual representations of base-10 blocks.
- In Unit 9, only the Open Response Assessment provided opportunity for students to verbalize their understanding of place value concepts.

Lessons which miss opportunities to develop conceptual understanding are listed below.

- 1-11 Comparing Numbers: The lesson does not employ visual representations of numbers to illustrate the difference in amounts when comparing numbers. Students should be able to see the difference using base-10 blocks or other groups of objects.
- Lesson 1-3 does not work on building conceptual knowledge. Although labeled with 2.NBT.A, students are not developing understanding of place value. In this lesson students are learning to use various

math tools.

- 5-2 through 5-4, using and calculating with coins: These activities are more about measuring value with money and do not clearly connect to learning about the concepts of place value using coins as visual representations of numbers.

A lack of instructional time devoted to some topics and the late introduction of some topics lead to a lack of development of conceptual understanding for students. For example, students are not given enough time to build a conceptual understanding of a yard and a meter based on the lessons provided. Students also only spend lesson 7-9 exploration (10 minutes) measuring the same object in two different units. In the lessons for length measurement, there is no time spent determining how much longer one object is than another. One thousand is not introduced conceptually with base ten blocks until lesson 9-5. Addition strategies based on models are not introduced until focus lessons 6-7 and 6-8. Finally, conceptual subtraction strategies for multi-digit numbers are not shown until lessons 9-6 and 9-7

EARNED 1 of 2 POINTS

Indicator 2b

Attention to Procedural Skill and Fluency: Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency.

The instructional materials reviewed for Grade 2 partially meet the expectation for giving attention throughout the year to individual standards that set an expectation of procedural skill and fluency.

The instructional materials lack activities to build fluency adding and subtracting within 20 (2.OA.2). No lessons focus on building fluency strategies for adding and subtracting within 20. Most fluency questions have sums that stay below 10 and sometimes 15. Subtraction work focuses mainly on taking away from 10; a minimal number of activities address subtraction work within 20, such as Lesson 3-2, Math Journal 1, page 47. On Math Journal pages, one or two problems may be devoted to addition and subtraction. These problems are not usually focusing on adding and subtracting within 20.

There are some places where fluency is given attention in the materials.

- Most lessons in the materials have a "Mental Math and Fluency" piece which allows students to practice fluencies required in Grade 2.
- Several online games help students with the expectation of fluency, including Top It, Basketball Addition, Beat the Computer, Name that Number, and Two-Fisted Addition.
- Most lessons have a "Practice" section which has students practicing fluency and skills. For example, lesson 7-5, page 647, is "Practicing with Fact Triangles."
- Online is a reference sheet called "Do Anytime Activities" with suggestions to help students practice fluencies at home.
- There is a fact check in the assessment book for teachers to mark when mastery of facts is accomplished.

EARNED 1 of 2 POINTS

Indicator 2c

Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications of the mathematics, without losing focus on the major work of each grade

The materials partially meet the expectation for being designed so that teachers and students spend sufficient time working with engaging applications of the mathematics, without losing focus on the major work of each grade.

Each unit contains a two-day "Open Response" lesson which engages students in application of mathematics. For example, lesson 9-3 has students engaging in application of the mathematics where students are asked to find a way to fairly share four muffins with five people. Online in the resource section, several projects are available to help students with application of mathematics.

Word-problem contexts are generally familiar to Grade 2 students including children playing, pencil cups, markers, stickers, and books. Add to and take from result unknown problems are the most frequently presented. There are limited opportunities for students to solve take-from, start-unknown, and change-unknown problems. Compare problems are frequently represented within the curriculum, sometimes connected to a graph (Student journal, page 149). However, there is not enough instruction for application for two-step addition (only one lesson directly focuses on this) and no instruction for application for two-step subtraction. Examples of application in number stories include:

- 2-2 Addition Number Stories
- 2-7 Subtraction and the Turn Around Rule (writing number stories and number models)
- 3-2 Subtraction from Addition
- 3-9 (Practice) Solving Subtraction Stories
- 5-8 Change to More Number Stories
- 5-9 Parts-and-Total Number Stories
- 6-2 Comparison Number Stories
- 6-3 Interpreting Number Stories
- 6-4 Animal Number Stories
- 6-9 Subtracting with Base-10 Blocks
- 8-8 Equal-Groups and Array Number Stories
- 8-9 More Equal Groups and Arrays
- 9-10 Connecting Doubles Facts, Even Numbers, and Equal Groups

Examples of 2-step application number stories include:

- 6-5 Two-Step Number Stories including home-link page.
- These lessons provide some instruction and focus on multi-step addition: 6-7 Finding partial sums involving multi-step addition strategies for adding 2-digit numbers, 7-2 Four or More Addends, 9-9 Estimating Costs in which students must choose at least three items from a market to mentally estimate which items they can purchase for \$100.

EARNED 1 of 2 POINTS

Indicator 2d

Balance: The three aspects of rigor are not always treated together and are not always treated separately. There is a balance of the 3 aspects of rigor within the grade.

The Grade 2 Everyday Mathematics instructional materials partially meet the expectations for balance. Overall, the three aspects of rigor are neither always treated together nor always treated separately within the materials. However, the lack of lessons on application and procedural skills and fluency do not allow for a balance of the three aspects.

- 36 lessons focus on or partially address conceptual understanding.
- "Daily Warm Ups," including "Mental Math and Fluency," and "The Number of the Day Routine" directly focus on math fact fluency.
- Seventeen lessons focus on Application with only one lesson directly focused on two-step addition and no lessons directly focused on two-step subtraction.

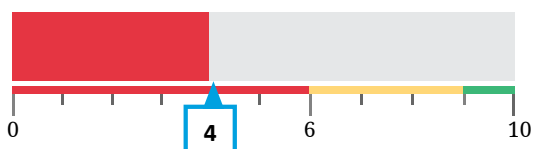
In terms of balance, the lessons do not provide as much instruction for fluency or application as they do for conceptual understanding. Conceptual understanding gets much more emphasis than the other two aspects of rigor.

One cluster where you can see the expectations for balance handled appropriately is 2.MD.A, measure and estimate lengths in standard units.

- Lesson 4-8, students learn about the importance of using consistent measurement lengths and measure classroom objects by iterating units without overlaps or gaps. In this lesson, students engage in all of the aspects of rigor.
- Lesson 5-8, students look for objects in the room that are about an inch, centimeter, 10 inches, and 10 centimeters and measure the objects. In this practice lesson, students engage in two aspects of rigor, procedural skills and application.
- Lesson 6-4, students understand length versus height and use lengths (in inches and feet) to compare length and/or height of animals. Students also write and solve comparison problems using the same context. In this lesson, students engage in all of the aspects of rigor.
- Lesson 6-10, students measure four different objects and compare their lengths, engaging in one of the aspects of rigor, procedural skill.
- Lesson 7-4, students estimate lengths, explore standard and non-standard units, compare measuring tools such as a yard stick and tape measure, select and measure familiar objects and measure distances. In this lesson, students engage in all of the aspects of rigor.

EARNED **1 of 2** POINTS

MATHEMATICAL PRACTICE-CONTENT CONNECTIONS DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 2 do not meet the expectations for practice-content connections. The materials only partially meet the expectations for attending to all of the indicators 2e through 2g, except for 2f which did not meet expectations. Overall, in order to meet the expectations for meaningfully connecting the Standards for Mathematical Content and the MPs, the instructional materials should carefully pay attention to the full meaning of every practice standard, especially MP3, in regards to students critiquing the reasoning of other students, and the use of correct vocabulary throughout the materials.

4/10

CRITERION (2E-2G)

Practice-Content Connections: Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice

Indicator 2e

The Standards for Mathematical Practice are identified and used to enrich mathematics content within and throughout each applicable grade.

The instructional materials reviewed for Grade 2 partially meet the expectations for identifying the MPs and using them to enrich the mathematics content. Each of the standards is identified in the Grade 2 materials. The practices are not over-identified or under-identified. For example, Unit 1, page 55 discusses how MP2 and MP5 unfold within the unit and lesson. Within the lesson are spots where the MPs are identified. However, within the lessons, no teacher guidance is given on how to help students with the MPs. Because there is no guidance on implementation, it is difficult to determine how meaningful connections are made. MP3, MP4 and MP8 are the least identified in the Grade 2 materials.

The Assessment Handbook includes "Mathematical Practices for Unit(s) Individual Profile of Progress" that can be used to assess practice standards. Unit Assessments do not identify content or practice standards being assessed. The Beginning of Year assessments identifies MP1 and MP7 for assessment, and the Middle of Year assessment identifies MP1, MP2, MP3, MP4, MP6 and MP7 for assessment. The End of Year assessment identifies MP1, MP2, MP3, MP4 and MP6 for assessment. MP5 is not identified with any formal assessment.

EARNED **1 of 2** POINTS

Indicator 2f

Materials carefully attend to the full meaning of each practice standard

The Grade 2 Everyday Mathematics do not meet the expectation for carefully attending to the full meaning of each practice standard. They do not treat each MP in a complete, accurate, and meaningful way. The lessons do not give teachers guidance on how to implement the standards. Some lessons are attached to standards without having students actually attending to them.

Below are examples of where the full intent of the MPs is not met.

- MP1: Lesson 2-5 cites MP1; simply recording strategies is not having student making sense of problems or persevering in solving them. In lesson 3-4, MP1 is identified; however, there is not a rich problem attached for students to make sense of or persevere in solving. In lesson 5-2, MP1 is identified; however, expecting students to be successful with problems 1 and 2 on a worksheet is not having students persevere or make sense of problems.
- MP4: In lesson 3-2, MP4 is identified; however, students are told how to make their mathematical models. Lesson 4-3 cites MP4; however, students are using a tool not making a mathematical model. Additionally, they are being told which tool to use. In lesson 5-8, MP4 is identified; however, students are told how to make their mathematical models.
- MP 5: Lesson 1-1 cites MP5; however, students are told to work with thermometers. Lesson 2-8 cites MP5, but again students are told which tools to use. In lesson 5-1, MP5 is identified; however, students are only given calculators to work with. They are not asked to choose a tool, and for the depth of MP5 to be met, students must be choosing their own tools.
- MP 6: Lesson 2-1 cites MP6; however, telling students how to count is not the students attending to precision. In lesson 3-5, MP6 is identified; however, having students notice it is more efficient to count up because they have to make fewer hops is not having students attend to precision. Lesson 4-8 cites MP6, but simply having the students discuss why the bed in the story didn't turn out to be the right size is not having the students attend to precision.
- MP 7: Lesson 1-9 cites MP7; however, simply asking the students how many shoes in a pair and what other things comes in pairs is not having students look for structure to solve problems. The materials state lesson 2-3 is connected to MP7 where students are supposed to look for structure such as categories, patterns, or properties. However, within the lesson there isn't any indication of where or how MP7 plays out. Lesson 3-7 cites MP7; however, expecting most students to solve the problems on a worksheet with manipulatives is not attending to MP7.

EARNED **0 of 2** POINTS

Indicator 2g.i

Materials prompt students to construct viable arguments and analyze the arguments of others concerning key grade-level mathematics detailed in the content standards.

The materials partially meet the expectation for prompting students to construct viable arguments and analyze the evidence of others. MP3 is not explicitly called out in the student material. Although the materials at times prompt students to construct viable arguments, the materials miss opportunities for students to analyze the arguments of others, and the materials rarely have students do both together.

There are some questions that do ask students to explain their thinking on assessments and in the materials. Sometimes there are questions asking them to look at other's work and tell whether the student is correct or incorrect and explain. Little direction is provided to make sure students are showing their critical thinking, process or procedure, or explaining their results. Many questions that prompt students to critique the reasoning of others tell the student if the reasoning was originally correct and incorrect. It should be noted, though, that student materials never explicitly call out entire MPs at once; MP3 is broken into GMP3.1 and GMP3.2 in the materials.

The open response lessons could be opportunities for students to construct arguments for or against a mathematical question. However, besides just working in groups, there is little prompting from the teacher for students to discuss the answers of other groups or students.

The following are examples of MP3 in the assessments:

- Unit Assessment 1: questions 4b and 7e, "Explain how you knew."
- Unit 1 Open Response Assessment: question 3, "Explain what you did to solve problem 2."
- Unit 2 Challenge: "Explain how she can use to double to solve."
- Unit 3 Assessment: question 2, "How do you know? Explain your thinking." question 4c, "Explain how you solved one of the facts above." question 6, "Explain Martin's thinking."
- Unit 3 Challenge: "Write an argument to explain why you agree or disagree with Zoe."
- Unit 3 Open Response: "Show and explain how to use Grace's strategy."

The following are examples of opportunities to construct viable arguments:

- Student Math Journal Volume 1 and 2: Most Math Boxes pages ask "what do you notice" and "explain" and other how and why questions.
- The Student Math Journals include at least 50 items that ask students to explain their solution, their strategy, how they know, etc.

The following are examples of opportunities to analyze the arguments of others found in Student Math Journal Volume 1:

- page 74, item 7: Student has to critique and explain student with wrong answer.
- page 79, item 8: Do you agree with Marta? Explain your answer.
- page 81, item 6: Why were your measures and your partner's measures the same for each object?
- page 91, item 5: For Problem 1, suppose your teacher asked your class to write the number in expanded form. Your friend Cassie wrote $700+2+5$. Do you agree? Why or why not?

EARNED **1 of 2** POINTS

Indicator 2g.ii

Materials assist teachers in engaging students in constructing viable arguments and analyzing the arguments of others concerning key grade-level mathematics detailed in the content standards.

The materials partially meet the expectation for assisting teachers in engaging students in constructing viable arguments and analyzing the arguments of others concerning key grade-level mathematics detailed in the content standards. In the materials, usually only one right answer is available, and there is limited teacher guidance on how to lead the discussion given besides a question to ask. Many missed opportunities to guide students in analyzing the arguments of others exist. Students spend time explaining their thinking but not always justifying their reasoning and creating an argument.

The following are examples of lessons aligned to MP3 that have missed opportunities to assist teachers in engaging students in constructing viable arguments and analyzing the arguments of others:

- In Routine number 4, the teacher is asked to have children support their arguments about weather trends based on data from the weather bar graph. No further direction.
- In Lesson 2-6 on page 183 TE, teachers are given the question to ask, but there is no follow-up on how to direct the discussion.
- In the summarize section of lesson 1-2, children discuss how sharing strategies with a partner can help with learning mathematics. There is no further direction for the teacher.
- Lesson 1-9 directs the teacher to call students up and for children to make predictions, but it does not guide the teacher in asking students to explain their thinking.
- Lesson 2-5 explains how to use nearby doubles and then apply the strategy. Not enough information is provided to the teacher.

EARNED **1 of 2** POINTS

Indicator 2g.iii

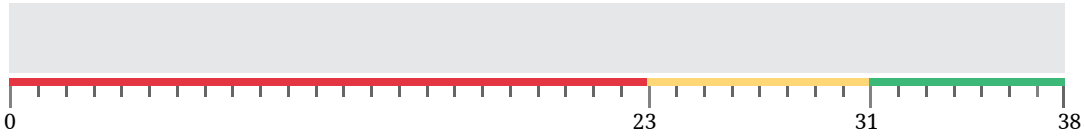
Materials explicitly attend to the specialized language of mathematics.

The instructional materials reviewed for Grade 2 partially meet the expectations for explicitly attending to the specialized language of mathematics. Overall, the materials for both students and teachers have multiple ways for students to engage with the vocabulary of mathematics; however, often the correct vocabulary is not used.

- Each unit includes a list of important vocabulary in the unit organizer which can be found at the beginning of each unit.
- Vocabulary terms are bolded in the teacher guide as they are introduced and defined but are not bolded or stressed again in discussions where students might use the term in discussions or writing.
- Each regular lesson includes an online tool, "Differentiating Lesson Activities." This tool includes a component, "Meeting Language Demands," that includes vocabulary, general and specialized, as well as strategies for supporting beginning, intermediate, and advanced ELLs. An example of this from Lesson 1-4 includes "For beginning ELLs use ... Visual aids, gestures, modeling, and guided practice to teach the meanings of words and phrases."
- Everyday Math comes with a reference book that uses words, graphics, and symbols to support students in developing language.
- Correct vocabulary is often not used. For example, turn-around fact is used rather than the term commutative property, number sentence is used instead of equation, name-collection box instead of equivalent equations or equivalent expressions, and top-heavy fraction instead of fraction.

EARNED **1 of 2** POINTS

GATEWAY 3: USABILITY
DID NOT REVIEW

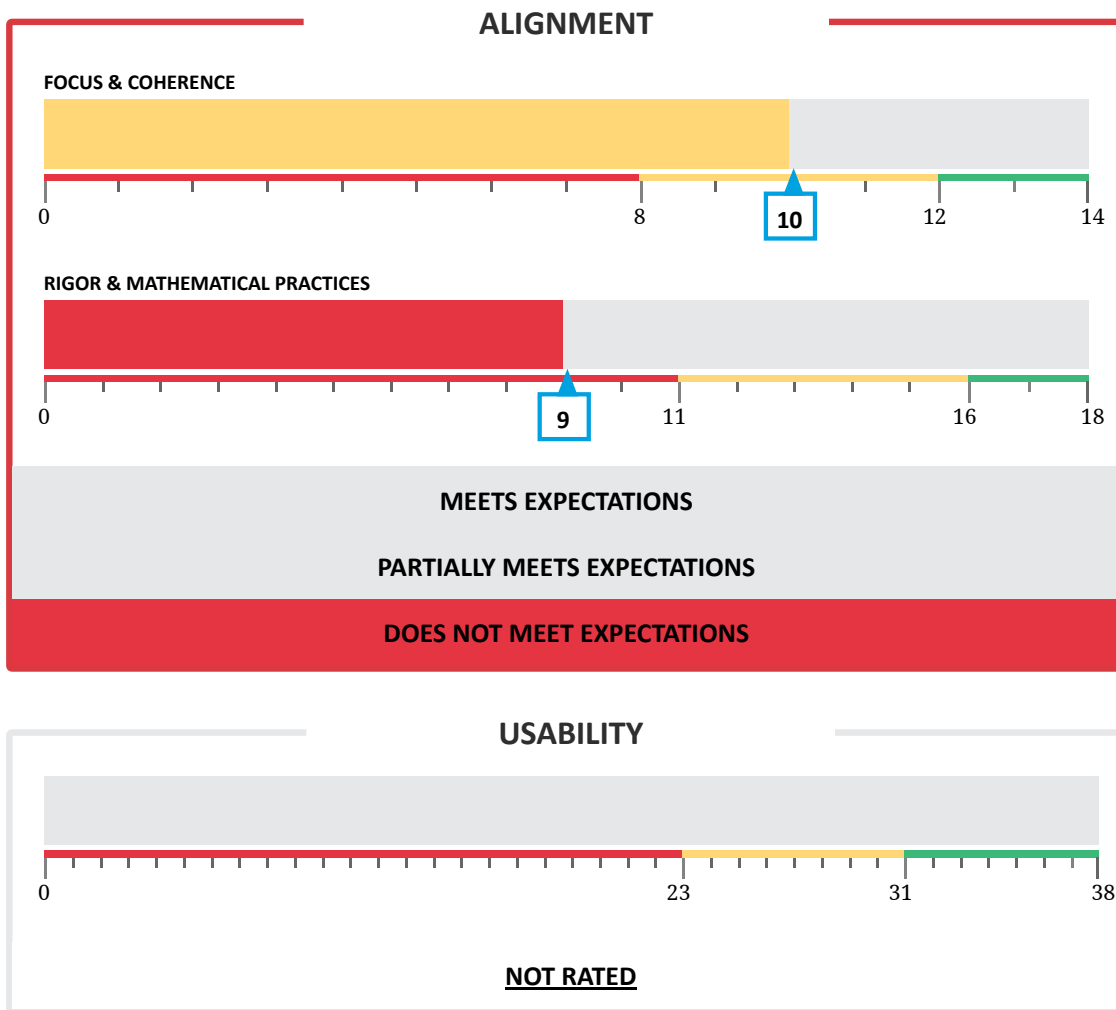


This material was not reviewed for Gateway Three because it did not meet expectations for Gateways One and Two

GRADE 3 EVERYDAY MATH GRADE 3

PUBLISHER: MCGRAW-HILL EDUCATION SUBJECT: MATH

TEACHER ED.



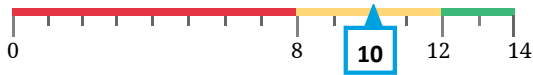
ALIGNMENT

EVERYDAY MATH GRADE 3 GRADE 3 DOES NOT MEET EXPECTATIONS FOR ALIGNMENT

The instructional materials reviewed for Grade 3 do not meet the expectations for alignment to the CCSSM. The instructional materials partially meet the expectations for Gateway 1 as they appropriately focus on the major work of the grade but did not always demonstrate coherence within the grade and across other grades. The instructional materials did not meet the expectations for Gateway 2 as they did not appropriately address rigor within the grade-level standards, and there are missed opportunities in the materials when it comes to attending to the full meaning of the standards for mathematical practice.

GATEWAY 1: FOCUS & COHERENCE PARTIALLY MEETS EXPECTATIONS





The instructional materials reviewed for Grade 3 *Everyday Mathematics* partially meet the expectations for Gateway 1. Future grade-level standards are not assessed, and the materials devote a majority of the time to the major work of the grade. At times, the instructional materials connect supporting work with the major work of the grade, but often the materials do not. Although the materials provide a full program of study that is viable for a school year, students are not given extensive work with grade-level problems. Connections between grade levels and domains are missing. Overall, the instructional materials meet the expectations for focusing on the major work of the grade, but the materials are not always consistent and coherent with the standards.

FOCUS MEETS EXPECTATIONS



The Grade 3 *Everyday Mathematics* materials meet the expectations for focus. The material's assessments could be modified so that future, grade-level standards are not assessed, and the materials devote a majority of the time to the major work of the grade. Overall, the materials meet the expectations for focus.

2/2

CRITERION (1A)

Materials do not **assess** topics **before** the grade level in which the topic should be introduced.

The Grade 3 *Everyday Mathematics* materials meet the expectations for not assessing topics before the grade level in which they should be introduced. Future grade-level topics are assessed; however, those assessments could be removed without affecting the progression of learning for students. The number of above grade-level assessments is limited and could easily be removed by the teacher.

Indicator 1a

The instructional material **assesses** the grade-level content **and, if applicable**, content from earlier grades. Content from future grades may be introduced but students should not be held accountable on assessments for future expectations.

The instructional materials reviewed for Grade 1 meet expectations for assessment because above grade-level assessment items could be modified or omitted without a significant impact on the underlying structure of the instructional materials. The program allows for a Beginning-of-Year, Mid-year, End-of-Year, and Unit Assessments which assess the Grade 3 standards. There are also eight unit assessments/progress checks. The unit assessments/progress checks have portions for Self Assessment, Unit Assessment, Open Response Assessment (odd numbered units), Cumulative Assessment (even numbered units), and a Challenge. These assessments can be found in the Assessment Handbook. The Individual Profile of Progress for tracking and class progress are present in both paper (pages 143-153 in the Assessment Handbook) and digital formats. Most lessons have an Assessment Check-in that can be used as either formative or summative assessment as stated in the implementation guide.

Assessment Check-Ins are part of most lessons and mostly assess grade-level content. For example, in the teacher guide on page 240 of lesson 3-3, the Assessment Check-In focuses on 3.NBT.2; this Check-In addresses the partial sums from second grade and extends the work into Grade 3.

Students are exposed to different units of measure within one problem on the Unit 8 Cumulative Assessment but remain on grade level since the accompanying picture shows the same units throughout.

The Unit Assessments, the End of the Year Assessment, and some of the Assessment Check-Ins do have a few off, grade-level assessments included. The following off, grade-level content are assessed in the Grade 3 Materials:

- On the End of the Year Assessment, question 7 assesses 5.OA.A.1; students are asked to use parentheses

to solve an equation. Question 13b assesses 4.NF.A.2; students are asked to compare two different fractions with different denominators and different numerators.

- In Unit 6, on the end of the unit assessment, questions 6, 7 and 9 ask students to use parentheses to solve an equation, 5.OA.A.1. Additionally, the unit self-assessment for students has them self-assessing the use of parentheses.
- In Unit 8, on the end of the unit assessment, question 6 asks students to find factors, 4.OA.B.4.

Overall, most unit assessment items are on a Grade 3 level. All of the off, grade-level assessments could be removed by the teacher without affecting the sequence of learning for students. There are no scoring rubrics provided for the educators; however, all assessments do provide answer keys.

EARNED 2 of 2 POINTS

4/4

CRITERION (1B)

Students and teachers using the materials as designed devote the large majority[1] of class time in each grade K-8 to the major work of the grade.

The Grade 3 Everyday Mathematics materials do meet expectations for devoting the large majority of class time to the major work of the grade level. The Grade 3 Everyday Mathematics engages students in the major work of the grade approximately 69 percent of the time.

Indicator 1b

Instructional material spends the majority of class time on the major cluster of each grade.

The instructional materials reviewed for Grade 3 meet the expectations for focus by spending the majority of the time on the major clusters of the grade. This includes all the clusters in 3.OA and 3.NF and clusters 3.MD.A and 3.MD.C.

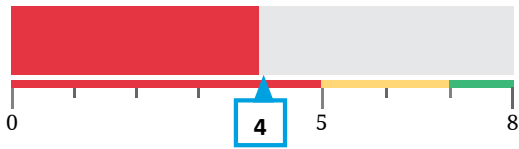
The Grade 3 materials do spend the majority of class time on the major clusters of the grade. Work was not calculated by units since the units spiral and are not clustered by groups of standards. There are nine units with approximately 8-13 lessons per unit. Assessment days were not included in these calculations. Additionally, each unit has a 2-day open response lesson; the Open Response Lessons were counted as one lesson. At the lesson level, the lessons are divided into Warm Up, Focus, and Practice. Each day consists of approximately 5-10 minutes on Warm Up, 30-45 minutes of a Focus, and 15-25 minutes of Practice. To determine the amount of time on major work, the standards covered in the focus lessons were considered since that is where direct instruction takes place, and the majority of the lesson takes place during this time.

- Approximately 64 lessons out of the 99 are focused on the major work. This represents approximately 65 percent of the lessons. Additionally, another 4 lessons, or 4 percent, are supporting work which truly supported the major work of the grade bringing the time spent on major work to approximately 69 percent.
- Fourteen lessons out of the 99 are focused on the supporting work of the grade. This work was treated separately from the major work of the grade.
- Sixteen lessons out of the 99 are focused on off grade-level work. For example, lesson 1-3 is focused on 2.MD.C.7 (*tell and write time to the nearest 5 minutes*), and lesson 1-7 is focused on 2.MD.D.10, (*draw a bar graph with a single scaled unit*). Lesson 3-7 is focused on 2.G.A.2 (*partition a rectangle into rows and columns*). Lesson 4-4 is focused on 2.G.A.1 (*recognize and draw shapes having specified attributes*). Lessons 6-8, 6-9, 6-10 and 6-11 all focus on 5.OA.A.1 (*use parentheses in numerical expressions and evaluate the expressions*). Lessons 8-3 and 8-5 focus on 4.OA.B.4 (*find all factors for a whole number*). Lesson 8-6 focuses on 4.OA.A.3 (*solve multistep word problems posed with whole numbers and have whole-number answers using the four operations, including problems in which remainders must be interpreted*). Lesson 9-5 focuses on 4.NBT.B.5 (*multiply a whole number of up to four digits by a one-digit whole number*).

- One lesson out of the 99 focuses on other content. This lesson is focused on using the student reference book.

EARNED **4 of 4** POINTS

COHERENCE DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 3 *Everyday Mathematics* partially meet the expectations for Gateway 1. Future grade-level standards are not assessed, and the materials devote a majority of the time to the major work of the grade. At times, the instructional materials connect supporting work with the major work of the grade, but often the materials do not. Although the materials provide a full program of study that is viable for a school year, students are not given extensive work with grade-level problems. Connections between grade levels and domains are missing. Overall, the instructional materials meet the expectations for focusing on the major work of the grade, but the materials are not always consistent and coherent with the standards.

4/8

CRITERION (1C-1F)

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

The instructional materials reviewed for Grade 3 do not meet the expectations for coherence. At times the instructional materials use supporting content as a way to continue working with the major work of the grade, but often the materials do not. For example, connections between geometry and major work of the grade are missed. The materials include a full program of study that is viable content for a school year, including approximately 31-32 weeks of lessons and assessments. All students are not given extensive work on grade-level problems. Prior grade-level content is not consistently identified, and materials do not explicitly connect grade-level concepts to prior knowledge from earlier grades. These instructional materials are shaped by the cluster headings in the standards; however, only surface-level connections are made between domains. Overall, the Grade 3 materials do not support coherence and are not consistent with the progressions in the standards.

Indicator 1c

Supporting content enhances focus and coherence simultaneously by engaging students in the major work of the grade.

The instructional materials reviewed for Grade 3 partially meet expectations that supporting content enhances focus and coherence by engaging students in the major work of the grade. In some cases, the supporting work enhances and supports the major work of the grade level, and in others, it does not.

At times supporting content does enhance focus and coherence by engaging students in the major work of the grade. Examples of the connections between supporting work and major work include the following:

- In Exploration C in Lesson 3-7, supporting standard 3.G.2 enhances work with 3.MD.5, 3.MD.5.A, 3.MD.5.B, 3.MD.6, 3.MD.7, and 3.MD.7.A. This exploration helps to connect student work with partitioning shapes into parts with equal areas to work with area.
- In Lesson 5-3, supporting standard 3.G.2 enhances work with 3.NF.A. This lessons allows students to use shapes partitioned into equal areas to develop understanding of fractions as numbers.

At times, supporting work does not enhance and support the major work of the grade. At times, standards listed at the beginning of each unit are logically connected to each other; however, when the specific work of the unit and lessons is examined, some connections are missed or not specifically noted for teacher or students. Also, many lessons address supporting work in isolation from major work of the grade. Examples of units and lessons without connections between supporting and major work include the following:

- In Unit 1, supporting standards 3.NBT.1, 3.NBT.2 and 3.MD.3 are the focus of four lessons while standards 3.MD.1, 3.MD.2, 3.OA.1, 3.OA.2, 3.OA.3, 3.OA.6, 3.OA.7 and 3.NF.1, all major work, are the focus of the remaining lessons in Unit 1.
- Unit 1, Lesson 3 includes 3.NBT.2, 3.MD.1, 3.MD.4 and 3.G.1. The "Using Mathematical Tools" math journal addresses each of these standards individually, and there is no explicit connection made for either the teacher or the student between the supporting and major work.
- The "Finding Equivalent Names" activity in Lesson 3-13 addresses 3.OA.7, major work, and 3.NBT.2, supporting work. This activity, however, focuses more on equivalence than a relationship between addition and subtraction and multiplication and division. The "Frames and Arrows" Math Masters worksheet in the same lesson has students either adding, subtracting, or multiplying to create a number pattern; again, the work with addition and subtraction is not used to enhance the work with multiplication.
- Lessons 4-6, 4-7, 4-10 and 4-11 are focused on supporting cluster 3.MD.D.
- Lessons 4-4, 4-5, 4-12 and 6-5 focus on supporting cluster 3.G.A.

EARNED 1 of 2 POINTS

Indicator 1d

The amount of content designated for one grade level is viable for one school year in order to foster coherence between grades.

The instructional materials reviewed for Grade 3 meet the expectations for the amount of content designated for one grade level being viable for one school year in order to foster coherence between grades. The suggested pacing includes 107 days of lessons (98 lessons total) and another 18 days allowed for assessment, making 125 days of materials. According to the Teacher Guide on p.xxxvi, each lesson is expected to last between 60-75 minutes. The online curriculum states to use Fridays as a Flex Day for games and intervention work. With Fridays being included as Flex Days, this curriculum allows for approximately 31 to 32 weeks of instruction.

EARNED 2 of 2 POINTS

Indicator 1e

Materials are consistent with the progressions in the Standards i. Materials develop according to the grade-by-grade progressions in the Standards. If there is content from prior or future grades, that content is clearly identified and related to grade-level work ii. Materials give all students extensive work with grade-level problems iii. Materials relate grade level concepts explicitly to prior knowledge from earlier grades.

The instructional materials reviewed for Grade 3 do not meet the expectation for being consistent with the progressions in the standards. Content from prior grades is not clearly identified or connected to grade-level work, and students are not given extensive work with grade-level problems.

Material related to future, grade-level content is not clearly identified or related to grade-level work. The third grade materials have at least 16 instances where future, grade-level content is present and not identified as such. Lessons with future, grade-level content include the following:

- Lesson 1-1, which is focused on 1.NBT.B.3, compares two, two-digit numbers using the symbols $<$, $>$, or $=$; lesson 1-3, which is focused on 2.MD.C.7, tells and writes time to the nearest 5 minutes; and lesson 1-7, which is focused on 2.MD.D.10, draws a bar graph with a single scaled unit.
- Lesson 3-7 is focused on 2.G.A.2, partitioning a rectangle into rows and columns.

- Lesson 4-4 is focused on 2.G.A.1, recognizing and drawing shapes having specified attributes.
- Lessons 6-8, 6-9, 6-10, and 6-11 focus on 5.OA.A.1, using parentheses in numerical expressions and evaluating the expressions.
- Lessons 8-3 and 8-5 focus on 4.OA.B.4, finding all factors for a whole number.
- Lesson 8-6 focuses on 4.OA.A.3, solving multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted.
- Lesson 9-5 focuses on 4.NBT.B.5, multiplying a whole number of up to four digits by a one-digit whole number.

The content does not always meet the full depth of standards. This mainly occurs because of a lack of lessons addressing the full depth. For example, there are fifteen lessons which address 3.OA.1; however, they only ever specifically address multiplication of 0,1, 2, 5, and 10. Another example is fractions. In Grade 3, there are 9 standards devoted to fractions, all of which are major work; 19 lessons directly address fractions.

Everyday Mathematics Grade 3 materials do not provide extensive work with grade-level standards. For example, the instructional materials do not provide extensive work with the following standards:

- 3.OA.A.1: Lesson 1-10 develops multiplication for 2, 5 and 10, and Lesson 2-6 develops multiplication for 0 and 1. The remaining 13 lessons present strategies for multiplication; however, multiplication for 3, 4, 6, 7 and 8 are never addressed specifically.
- 3.OA.B.5: There are 13 lessons aligned to this standard; however, only one lesson has students understanding the relationship between multiplication and division, lesson 6-3.
- 3.OA.C.8: There are 18 lessons aligned to this standard; however, only four lessons, 2-4, 2-5, 3-2 and 5-10, have students doing two-step problems.

In lessons where prior knowledge is needed, the instructional materials do not state that prior knowledge is being used. When future, grade-level concepts are introduced, there is no mention that the concept will be used in future grades. If the teacher uses the spiral trace at the beginning of the lesson or unit, the teacher will know where prior knowledge is used based on the spiral trace and when the student will use the skill/concept again in the future. The spiral trace is not extensive and does not show where the students learning is really headed. It is listed by lessons and not connecting standards. At the beginning of each unit, the spiral trace provides an explanation of what will occur by the end of the unit, but the spiral trace does not explain any further and does not connect to the next standard.

EARNED 0 of 2 POINTS

Indicator 1f

Materials foster coherence through connections at a single grade, where appropriate and required by the Standards i. Materials include learning objectives that are visibly shaped by CCSSM cluster headings. ii. Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important.

The instructional materials reviewed for Grade 3 partially meet the expectations for fostering coherence through connections at a single grade, where appropriate and when the standards require. Overall, materials include learning objectives that are visibly shaped by CCSSM cluster headings, but there are missed opportunities to provide problems and activities that connect two or more clusters in a domain or two or more domains when these connections are natural and important.

Instructional materials shaped by cluster headings include the following examples:

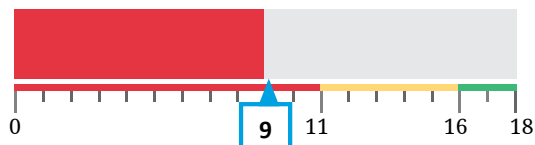
- Lesson 2-7, "Multiplication Arrays," is shaped by 3.OA.A.
- Lesson 3-2, "Estimating Costs," is shaped by 3.NBT.A.

- Lesson 5-3, "Equivalent Fractions," is shaped by 3.NF.A.
- Lesson 7-10, "Justifying Fraction Comparisons," is shaped by 3.NF.A.

While the materials have many instances where two or more domains are connected, often the connections are only surface-level connections. For example, lesson 7-4 shows a connections between 3.NF.1, 3.NF.3, 3.NF.3.A, 3.NF.3.B, 3.NF.3.C, 3.NF.3.D, and 3.G.2. However, the lesson is divided into parts, and the parts only truly address one standard at a time.

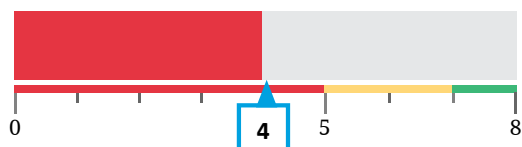
EARNED **1 of 2** POINTS

GATEWAY 2: RIGOR AND MATHEMATICAL PRACTICES DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 3 do not meet the expectations for rigor and MPs. The instructional materials do not meet the expectations for the indicators on rigor and balance, nor do they meet the expectations of the indicators on practice-content connections. Overall, the instructional materials are stronger in regards to procedural skill and fluency and identifying MPs, although improvements are still needed to for those to fully meet the standards as well.

RIGOR AND BALANCE DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 3 do not meet the expectations for rigor and MPs. The instructional materials do not meet the expectations for the indicators on rigor and balance, nor do they meet the expectations of the indicators on practice-content connections. Overall, the instructional materials are stronger in regards to procedural skill and fluency and identifying MPs, although improvements are still needed to for those to fully meet the standards as well.

4/8

CRITERION (2A-2D)

Rigor and Balance: Each grade's instructional materials reflect the balances in the Standards and help students meet the Standards' rigorous expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application.

The instructional materials reviewed for Grade 3 do not meet expectations for rigor and balance. The instructional materials do not give appropriate attention to conceptual understanding or application. The materials do a better job of giving attention to procedural skill and fluency; however, the full meaning of procedural skill and fluency is still not met. Overall, because of not fully meeting expectations for procedural skill and fluency, application, and conceptual understanding, the instructional materials do not reflect the balances in the CCSSM.

Indicator 2a

Attention to conceptual understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings.

Materials partially meet the expectation for developing conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings. Frequently, opportunities are missed. Opportunities for students to work with standards that specifically call for conceptual understanding occur by use of pictures, manipulatives, and strategies, but they frequently fall short by not providing higher-order thinking questions to truly determine students' understandings.

Standards 3.OA.1 and 3.OA.2 focus on interpreting products of whole numbers and interpreting whole-number quotients of whole numbers.

- Lesson 1.8 begins students on 3.OA.1 by using pictures and discussing grouping. In lesson 1.10, students subitize and practice doubling, then fact families. In lesson 1.12, there is more work with 2s, 5s and 10s. In lesson 2.6, students practice making sense of equal groups using pictures, counting, skip counting, arrays, and repeated addition. Lesson 3.9 begins with word problems to reinforce the mathematics of 3.OA.1. Lesson 3.11 has students build arrays with counters. Lesson 5.6 returns to doubling; this time using area. In lesson 7.2, there are arrays and estimation. Few questions directly address students' conceptual understanding. Rather, it appears the totality of the activities is designed to encourage students to develop understanding. Teachers are not provided many opportunities to check this understanding.
- Lesson 1.9 begins students on 3.OA.2 by posing leading questions and facilitating students procedures and explanations. Opportunity is not provided for students to really question their strategy nor to relate it in a meaningful way.

Cluster 3.NF focuses on developing understanding of fractions as numbers.

- Fractions first begin in lesson 1.12 in Exploration B. Here students are asked to cut out circles, use dice to determine the number of pancakes and the number of people, and then answer "How much does everyone get if everyone gets an equal share?" Depending on the help teachers provide, this could develop conceptual understanding. The practice section then has students work with number stories involving halves. The progression is fragmented and does not lend itself to students developing an understanding but rather a need to rely on a procedure. For example, the "Equal Shares at a Pancake Breakfast" activity provide an answer of "one-half of a pancake" and then states that "drawings vary." The teacher is not provided with sample answers to see examples of student conceptual understanding.
- Lesson 2-9 "Math Message" asks "4 friends equally share 6 granola bars. How many granola bars will each friend get?" It encourages students to use sketches to show their thinking. This problem lends itself to conceptual understanding if teacher's focus on students' thought processes during the follow-up.
- The best conceptual understanding problems generally occur in the "Open Response" problem in each unit. However, much of the conceptual understanding is limited due to heavy teacher involvement, direct instruction, leading questions, and emphasis on procedures.
- Lesson 2-12 focuses on 3.NF.1 but has students work on vocabulary and familiarity with fraction circles instead of developing understanding from any meaningful manipulation or questioning with the fraction circles. Teachers are prompted to ask "What fraction of a _____ piece is a _____ piece? How do you know?" However, the example answer is only "a yellow piece is one-fourth of the red circle."
- "Exploring Fractions" in lesson 5-1 sets the stage for students conceptual understanding by having students note what makes one-fourth.
- Lesson 5.2 allows students to demonstrate conceptual understanding in the Math Message by explaining one-third. The remainder of the lesson is procedural in nature as it ends the Math Message with a note to "(t)ell children that today they will continue to represent fractions with fraction circles, words, and numbers."
- Lesson 7.4 allows students to develop conceptual understanding as students divide shapes into equal parts and connect those to fractions.

Some attention to Conceptual Understanding is found in the Professional Development boxes throughout the Teacher Edition.

- On page 452 of the Teacher Edition, the Professional Development box explains unit fractions and shows an example of how representing non-unit fractions by counting unit fractions can help build student understanding of the relationship between the numerator and denominator.
- On page 660 of the Teacher Edition, the Professional Development box explains that children are already familiar with two area models of fractions, fraction circles and fraction strips, and this lesson will introduce the number line as a different model for fractions.

EARNED 1 of 2 POINTS

Indicator 2b

Attention to Procedural Skill and Fluency: Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency.

The instructional materials reviewed for Grade 3 partially meet the expectation for giving attention throughout the year to individual standards that set an expectation of procedural skill and fluency. While lessons do exist to work on fluencies required at the Grade 3 level, the lessons do not build upon each other to help students reach fluency for all facts, particularly those associated with 3.OA.7.

The instructional materials lack activities to build fluency multiplying and dividing within 100, 3.OA.7. The online spiral tracker shows 125 exposures to 3.OA.7 in focus lessons. When analyzing the lessons, many of the instances noted in the tracker show multiple exposures for the same lesson, and a few lessons were noted as Grade 4 lessons. For example, lessons 2.8, 2.9 and 2.10 all have students using remainders in division which is a Grade 4 standard. Twenty-eight lessons have students multiplying and dividing. Only three (lessons 6.6, 8.2 and 8.6) have students dividing, and in one (lesson 8.2) of those, there are only two division problems. Additionally, in the other 25 lessons, only the multipliers 0, 1, 2, 5, 9 and 10 are explored specifically. Since there is not a consistent progression of learning, it is difficult to be assured all students will have the teaching available to them to reach mastery of fluencies and skills.

There are some places where fluency is given attention in the materials.

- Most lessons in the materials have a "Mental Math and Fluency" piece which allows for students to practice fluencies required in Grade 3.
- Several online games help students with the expectation of fluency, including Baseball Multiplication, Multiplication Top-It, Beat the Computer, and Multiplication Bingo. It is important to note none of the online games have students practicing division.
- Some games on the Activity Cards develop fluency, for example: Roll to 1000 on page 153, Beat the Calculator on page 721, and Multiplication Top-it on page 823 help build fluency. These appear throughout the year, sometimes in unrelated lessons.
- Online is a reference sheet called "Do Anytime Activities" with suggestions to help students practice fluencies at home.
- There is a fact check in the assessment book for teacher's to mark when mastery of facts is accomplished.

EARNED 1 of 2 POINTS

Indicator 2c

Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications of the mathematics, without losing focus on the major work of each grade

The materials partially meet the expectation for being designed so that teachers and students spend sufficient time working with engaging applications of the mathematics, without losing focus on the major work of each grade.

Most problems are presented in the same way throughout the entire curriculum. There is little variety of problems or types of problems. Problems are presented as short, one-correct-answer problems. Some of the problems are tied together through concepts and ideas, but many times lessons are completely disjointed from one another.

Each unit contains a two-day "Open Response" lesson which engages students in application of mathematics. For example, lesson 4-11 has students engaging in application of the math building a rabbit pen. Online in the resource section, some "Projects" are available to help students with application of math.

Standard 3.OA.3 has 161 exposures within the curriculum and is listed as the focus of 27 days of Focus lessons.

- The Focus portions of Lessons 1-8, 1-9, 2-5, 2-6, 2-7, 2-8 (2 days) 2-9, 2-10, 3-10, 3-11, 3-12, 5-5, 5-10 (2 days) 5-11, 6-6, 7-2, 7-3, 8-2, 8-3, 8-4 (2 days) 8-6, 9-2, 9-3, and 9-5 are aligned to 4.OA.3.
- In Lesson 1-8, the first Focus lesson addressing 3.OA.3, students are given one-step multiplication word problems. At the end of the lesson, students write their own number story to match a number sentence. The activities in this lesson requiring students to write their own word problems takes away from the time that students would spend applying this standard and multiplying and dividing to solve word problems.
- In Lesson 2-9, students are given one-step division word problems in the "Equal-Sharing Number Stories" activity. Of the three problems, two problems have a dividend that is a multiple of 10 and 1 has a dividend that is a multiple of 5. The problems are very similar to the sample problems done during the Focus portion of the lesson, so true application of the standard is not required.
- Lesson 5-11 is aligned to 3.OA.3. In this lesson, students learn to divide rectangles/arrays in different ways. Although some of the situations are presented with a context, these problems are not true application problems, and the focus of the lesson is not on multiplication and division within 100.
- Lesson 6-6 contains a "More Number Stories" Math Journal worksheet. The worksheet contains multiplication and division word problems. The worksheet begins with a bulleted set of directions for approaching each problem, and the problems themselves are scaffolded. For example, each problem includes a table to fill in before providing the solution. This procedure for students to follow when solving number stories along with the scaffolding accompanying the problems detracts from the true application of the standard.
- Lesson 7-2 contains an "Estimating the Number of Plants" activity that is aligned to 3.OA.3. This activity is only one problem. The context of the problem is thin, and the problem is really more about estimation than multiplication and division within 100. In the problem, students are provided with a diagram, and the solution path is clear. Students can get the answer of 40 by skip-counting.
- The "Solving Number Stories with Measures" activity in Lesson 7-3 is aligned to 3.OA.3. However, problems 3 and 4 do not require multiplication or division.
- Lesson 9-3 includes the "Using Mental Math to Multiply" and "North American Bird Number Stories" activities. Both of these activities include one-step problems. The focus of this lesson is not on using multiplication and division within 100 to solve word problems. Many of the products are above 100. This lesson focuses on strategies for "breaking apart factors into numbers that can be multiplied mentally." As a result, the focus of these activities is on strategies for mental multiplication and not application of this standard.
- Lesson 9-5 only contains one worksheet addressing 3.OA.3. The "Jonah's Garden" activity is asking students to determine how many seeds can be planted if nine seeds are planted in each of 16 rows. The problem is very scaffolded. Students are first provided with a rectangle and asked to divide it into two sections: one section of 10 rows and one section of 6 rows. Although dividing this garden and using the scaffolding does allow students to work with two multiplication equations that are within 100 as required by the standard, if a student attempts to solve the word problem without using the provided scaffolding, the multiplication is not within 100 as required by the standard.

Standard 3.OA.8 has 129 exposures within the curriculum and is listed as the focus of 21 days of Focus lessons.

- The Focus portions of Lessons 2-2, 2-3, 2-4, 2-5, 3-2 (2 days), 3-3, 3-4, 3-5, 3-6, 4-12, 5-10 (2 days), 6-1, 6-7, 6-8, 6-9 (2 days), 6-10, 6-11 and 7-2 are aligned to 4.OA.3.
- Lessons 2-2 and 2-3 are aligned to 3.OA.8, but the lessons only include one-step word problems, not two-step word problems.
- Lessons 2-4 and 2-5 both include two-step word problems. However, problems are scaffolded for students, thus the problems limit the entry points for students. For example, on the Lesson 2-4 Math Journal worksheet "Multistep Number Stories, Part 1," students are required to write a number model before they write their answers.
- Lesson 3-3 is aligned to 3.OA.8. Students do not solve two-step word problems in this lesson. Although estimation is used during the process of learning partial-sums addition, there is no evidence of application of standard 3.OA.8 in the Focus portion of this lesson.
- Lesson 3-4 is aligned to 3.OA.8. Students do not solve two-step word problems in this lesson. Although estimation is used during the process of learning column addition, there is no evidence of application of standard 3.OA.8 in the Focus portion of this lesson.
- Lesson 3-5 is aligned to 3.OA.8. Students do not solve two-step word problems in this lesson. Although estimation is used during the process of learning counting-up subtraction, there is no evidence of application of standard 3.OA.8 in the Focus portion of this lesson.
- Lesson 3-6 is aligned to 3.OA.8. Students do not solve two-step word problems in this lesson. Although estimation is used during the process of learning "expand-and-trade subtraction," there is no evidence of application of standard 3.OA.8 in the Focus portion of this lesson.
- Lesson 6-1 is aligned to 3.OA.8. Students do not solve two-step word problems in this lesson. Although estimation is used during the process of learning "trade-first subtraction," there is no evidence of application of standard 3.OA.8 in the Focus portion of this lesson.
- Lessons 6-8 and 6-9 include parentheses in number sentences. This is not appropriate for grade 3; parentheses are not introduced in the Standards until grade 5. Although Lesson 6-8 is aligned to 3.OA.8, there are no word problems in the lesson. Lesson 6-9, "Connecting a Number Story and a Number Model," includes a two-step word problem, but the word problem is very scaffolded. The number sentence is already written out for students, and the provided number sentence included parentheses.

EARNED 1 of 2 POINTS

Indicator 2d

Balance: The three aspects of rigor are not always treated together and are not always treated separately. There is a balance of the 3 aspects of rigor within the grade.

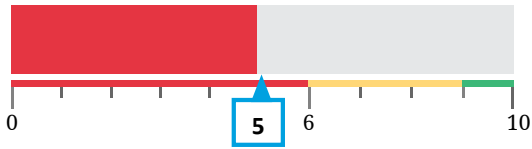
The Grade 3 Everyday Mathematics instructional materials partially meet the expectations for balance. Overall, the three aspects of rigor are neither always treated together nor always treated separately within the materials. However, the lack of lessons on conceptual understanding and application do not allow for a balance of the three aspects.

The teacher's guide states that conceptual understanding, procedural skills and fluency, and application are all dimensions of Everyday Math which is certainly true. This curriculum most emphasizes procedural skill and fluency frequently through the spiral curriculum and daily practice. Conceptual understanding is developed in some clusters but lacking in other clusters. Application is minimally present in the curriculum. The evidence for these conclusions are stated in each of the earlier indicators (2A, 2B and 2C).

The unbalanced aspects of rigor in lessons and assignments lead to a heavy emphasis on procedural skills and fluency. All aspects of rigor are almost always treated separately within the curriculum including within and during lessons and practice.

EARNED **1 of 2** POINTS

MATHEMATICAL PRACTICE-CONTENT CONNECTIONS DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 3 do not meet the expectations for practice-content connections. The materials only partially meet the expectations for attending to all the indicators 2e- 2g. Overall, in order to meet the expectations for meaningfully connecting the Standards for Mathematical Content and the MPs, the instructional materials should carefully pay attention to the full meaning of every practice standard, especially MP3 in regards to students critiquing the reasoning of other students and the use of correct vocabulary throughout the materials.

5/10

CRITERION (2E-2G)

Practice-Content Connections: Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice

Indicator 2e

The Standards for Mathematical Practice are identified and used to enrich mathematics content within and throughout each applicable grade.

The instructional materials reviewed for Grade 3 partially meet the expectations for identifying the MPs and using them to enrich the Mathematics content.

The MPs are identified in the Grade 3 materials for each unit and the focus part of each lesson.

- For Unit 1, page 13 discusses how MP4 and MP5 unfold within the unit and lesson.
- For Unit 3, page 219 discusses how MP2 and MP7 unfold within the unit and lessons.
- For Unit 5, page 433 identifies which MPs are in the focus parts of the lessons within the unit.
- For Unit 7, page 633 explains the development of MP4 and MP5 in this unit.
- Within the lessons, there are spots where the MPs are identified.

However, within the lessons, no teacher guidance on how to help students with the MPs is given. Because there is no guidance on implementation, it is difficult to determine how meaningful connections are made. Additionally, it is difficult to determine if the MPs have meaningful connections since the materials break them into small parts and never address the MPs as a whole. The broken apart MPs can be seen on pages EM8-EM11.

EARNED **1 of 2** POINTS

Indicator 2f

Materials carefully attend to the full meaning of each practice standard

The Grade 3 Everyday Mathematics instructional materials partially meet the expectation for treating each MP in a complete, accurate, and meaningful way. The lessons do not give teachers guidance on how to implement the standards.

Below are examples of where the full intent of the MP is not met.

- MP5: Lesson 5.5 cites MP7, look for and make use of structure; however, in the lesson, students are simply doubling and not looking for and making use of structure. Lesson 7.1 cites MP5, use appropriate tools strategically. The intent of this MP is for students to choose their own tools and not be given the tool. In this lesson, students are given the tools to use, so it doesn't meet the intent.
- MP 6: Lesson 6.4 cites MP6, attending to precision, and during the lesson, one of the places where the MP is highlighted has students deciding if a calculator would be faster.
- MP7: Lesson 8.8 cites MP7, look for and make use of structure. Simply asking what is the same about all of these shapes doesn't meet the intention of a student looking for and making use of structure.

In some Lessons, the MPs are treated in an accurate and meaningful way. For example, in Lesson 5.3, students are modeling with mathematics using fractions.

EARNED **1 of 2** POINTS

Indicator 2g.i

Materials prompt students to construct viable arguments and analyze the arguments of others concerning key grade-level mathematics detailed in the content standards.

The materials partially meet the expectation for prompting students to construct viable arguments and analyze the evidence of others. MP3 is not explicitly called out in the student material. Although the materials at times prompt students to construct viable arguments, the materials miss opportunities for students to analyze the arguments of others, and the materials rarely have students do both together.

There are some questions that do ask students to explain their thinking on assessments and in the materials. Little direction is provided to make sure students are showing their critical thinking, process or procedure, or explaining their results. Sometimes there are questions asking them to look at other's work and tell whether the student is correct or incorrect and explain. It should be noted, though, that student materials never explicitly call out entire MPs at once; MP3 is broken into GMP 3.1 and GMP 3.2 in the materials.

The open response lessons could be opportunities for students to construct arguments for or against a mathematical question. However, besides just working in groups, there is little prompting from the teacher for students to discuss the answers of other groups or students. The following are some examples of where the materials indicate that students are being asked to engage in MP3:

- In the Unit 2 assessment on page 18, question 7 asks students to decide if Jeremiah's number model fits the number story.
- In the Math Journal on page 80, problem 5 asks students how the number model they created fits the story problem.
- In the Math Journal on page 117, problem 5 asks students if they agree with Nicholas' reasoning; Nicholas is a fictional student.
- In Lesson 7-2, on the "Exploring Equivalent Fractions" Math Masters worksheet, students are asked "Do you agree or Disagree? Explain." However, this worksheet has two fractions cards, and the conjecture that students are analyzing is simply that the two cards show equivalent fractions.
- In Lesson 7-3, the Math Message follow-up says to "(h)ave partners share their problem-solving strategies with each other, and then invite a few volunteers to explain how their partner solved the problem." Although some students might analyze the arguments of others, the prompt does not require it, and only volunteers will participate in the activity.

There are many missed opportunities for students to construct viable arguments and/or to analyze the reasoning of others. An example of this is in lesson 7.7 where students read a journal page about the volume of a 1-liter container. They are discussing the conservation of mass (in this case liquid). The teacher is prompted to have the students complete the problem independently and then have a class

discussion and listen to students answers. Teachers are instructed to provide support for answers that state all containers hold 1-liter of liquid. The opportunity missed here is encouraging the rich conservation students could have to defend answers by constructing reasonable arguments and defending arguments of others.

EARNED **1 of 2** POINTS

Indicator 2g.ii

Materials assist teachers in engaging students in constructing viable arguments and analyzing the arguments of others concerning key grade-level mathematics detailed in the content standards.

The materials partially meet the expectation for assisting teachers in engaging students in constructing viable arguments and analyzing the arguments of others concerning key grade-level mathematics detailed in the content standards. The Grade 3 materials sometimes give teachers questions to ask students to have them form arguments or analyze the arguments of others, but typically the materials do not give both at the same time.

Usually only one right answer is available, and there is not a lot of teacher guidance on how to lead the discussion given besides a question to ask. There are many missed opportunities to guide students in analyzing the arguments of others. Students spend time explaining their thinking, but not always justifying their reasoning and creating an argument.

The following are examples of lessons aligned to MP3 that have missed opportunities to assist teachers in engaging students in constructing viable arguments and analyzing the arguments of others:

- Lesson 2.7 states "Could those numbers work as factors of 24? Explain." The missed opportunity here is for teachers to guide students in a rich discussion about what strategies they used and why. There is not that type of guidance for teachers.
- Lesson 3.4 states to have the students trade journals and make sense of their partners work. Again, there is no instruction or guidance for the teacher to support students as they complete the activity.
- Lesson 5.1 states "Be ready to share why you agree or disagree with Samantha." There is no instruction or guidance for the teacher.
- Lesson 5.5 has students sketch their thinking, which is not engaging in creating or analyzing arguments. Teachers are not given specific guidance around what to do with the sketches in order to really help students construct viable arguments and analyze the arguments of others.
- Lesson 6.7 states "work together to resolve discrepancies by showing and making sense of their solutions." Again, there is no instruction or guidance for the teacher to help the students do the work.
- Lesson 8-4, "Setting Up Chairs," is a 2-day lesson designed to get students to make, discuss, and revise conjectures. More teacher guidance is needed in order for teachers to support students. For example, on page 753, the text states "Once children have begun working on their conjectures and arguments, try to minimize intervention." The second day of this lesson does provide some sample student work with some sample answers for teachers in the "Planning a Follow-Up Discussion" section on pages 754-755. However, one sample answer for each question is provided, and teachers are not given guidance on how to handle different answers.

EARNED **1 of 2** POINTS

Indicator 2g.iii

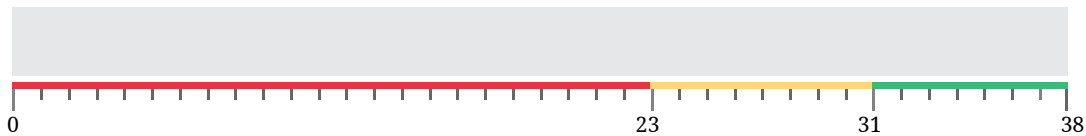
Materials explicitly attend to the specialized language of mathematics.

The instructional materials reviewed for Grade 3 partially meet the expectations for explicitly attending to the specialized language of Mathematics. Overall, the materials for both students and teachers have multiple ways for students to engage with the vocabulary of mathematics; however, often the correct vocabulary is not used.

- Each unit includes a list of important vocabulary in the unit organizer which can be found at the beginning of each unit.
- Vocabulary terms are bolded in the teacher guide as they are introduced and defined but are not bolded or stressed again in discussions where students might use the term in discussions or writing.
- Each regular lesson includes an online tool, "Differentiating Lesson Activities." This tool includes a component, "Meeting Language Demands," that contains vocabulary, general and specialized, as well as strategies for supporting beginning, intermediate, and advanced ELLs. An example of this, from Lesson 3-5 includes "For beginning ELLs use visual aids to scaffold understanding of task directions."
- Everyday Math comes with a Reference book that uses words, graphics, and symbols to support students in developing language.
- Correct vocabulary is often not used. For example, "Turn-around fact" is used rather than the term commutative property, number sentence is used instead of equation, "name-collection box" instead of equivalent equations or equivalent expressions, and "top-heavy fraction" instead of fraction.

EARNED **1 of 2** POINTS

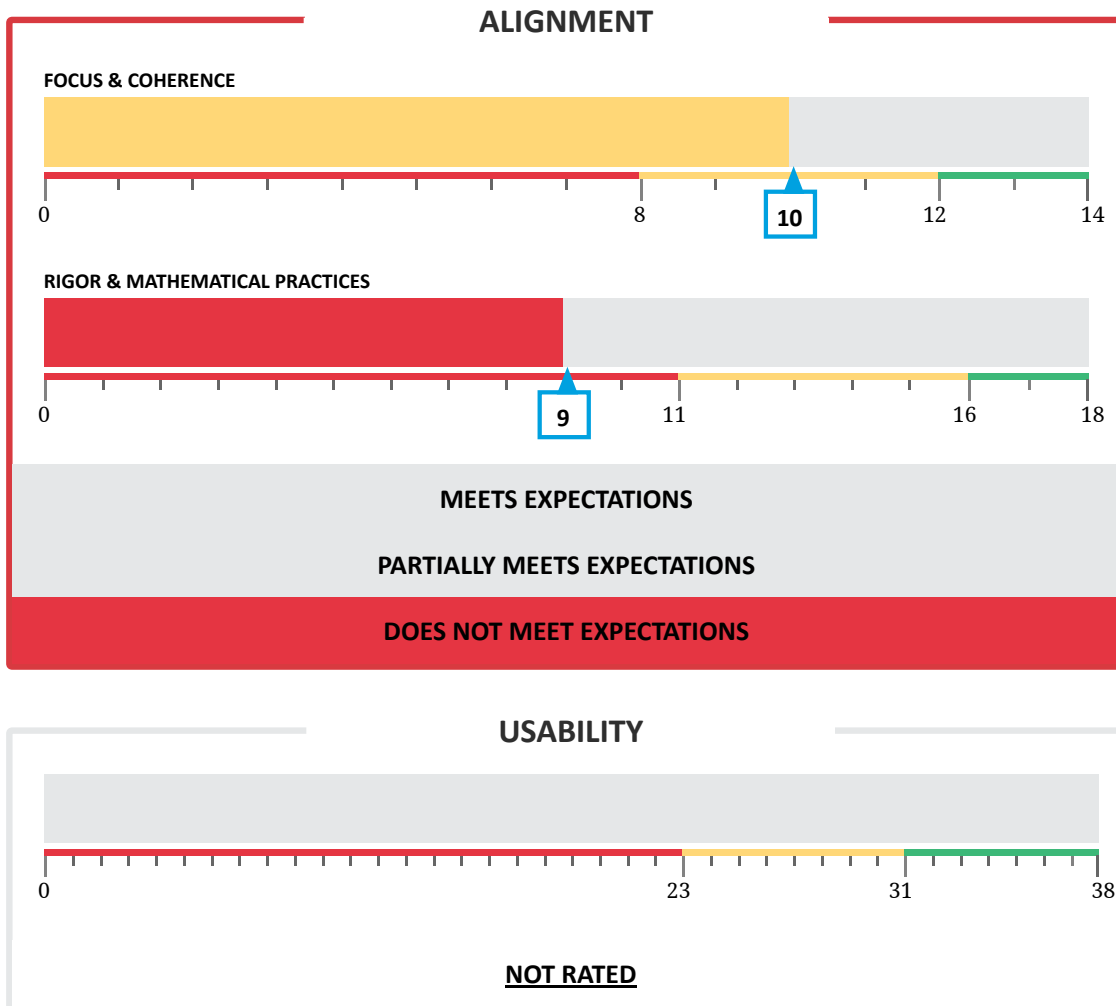
GATEWAY 3: USABILITY DID NOT REVIEW



This material was not reviewed for Gateway Three because it did not meet expectations for Gateways One and Two

GRADE 4 EVERYDAY MATH GRADE 4

PUBLISHER: MCGRAW-HILL EDUCATION SUBJECT: MATH



ALIGNMENT

EVERYDAY MATH GRADE 4 DOES NOT MEET EXPECTATIONS FOR ALIGNMENT

The instructional materials reviewed for Grade 4 do not meet the expectations for alignment to the CCSSM. The instructional materials partially met the expectations for Gateway 1 as they appropriately focus on the major work of the grade but did not always demonstrate coherence within the grade and across other grades. The instructional materials did not meet the expectations for Gateway 2 as they did not appropriately address rigor within the grade-level standards, and there are missed opportunities in the materials when it comes to attending to the full meaning of the MPs.

GATEWAY 1: FOCUS & COHERENCE PARTIALLY MEETS EXPECTATIONS



The instructional materials reviewed for Grade 4 *Everyday Mathematics* partially meet the expectations for Gateway One. Future grade-level standards are not assessed, and the materials devote a majority of the time to the major work of the grade. At times, the instructional materials connect supporting work with the major work of the grade, but often, the materials do not. Although the materials provide a full program of study that is viable for a school year, students are not given extensive work with grade-level problems. Connections between grade levels and domains are missing. Overall, the instructional materials meet the expectations for focusing on the major work of the grade, but the materials are not always consistent and coherent with the standards.

FOCUS MEETS EXPECTATIONS



The Grade 4 *Everyday Mathematics* materials meet the expectations for focus. Future grade-level standards are not assessed, and the materials devote a majority of the time to the major work of the grade. Overall, the materials meet the expectations for focus.

2/2 **CRITERION (1A)**

Materials do not **assess** topics **before** the grade level in which the topic should be introduced.

The Grade 4 *Everyday Mathematics* materials meet the expectations for not assessing topics before the grade level in which they should be introduced. All items on Unit assessments are focused on Grade 4 standards.

Indicator 1a

The instructional material **assesses** the grade-level content **and, if applicable**, content from earlier grades. Content from future grades may be introduced but students should not be held accountable on assessments for future expectations.

The instructional materials reviewed for Grade 4 meet the expectations for focus within assessment. Overall, the instructional material does not assess content from future grades within the summative assessment sections of each unit.

The program allows for a Beginning-of-Year, Mid-year, End-of-Year, and Unit Assessments which assess the Grade 4 standards. There are also eight unit assessments/progress checks. The unit assessments/progress checks have portions for Self Assessment, Unit Assessment, Open Response Assessment (odd numbered units), Cumulative Assessment (even numbered units), and a Challenge. These assessments can be found in the Assessment Handbook. The Individual Profile of Progress for tracking and class progress are present in both paper (pages 104-115 in the Assessment Handbook) and digital formats. Most lessons have an Assessment Check-in that can be used as either formative or summative assessment as stated in the implementation guide.

Assessment Check-Ins are part of most lessons and mostly assess grade-level content. For example, in the teacher guide on page 182 of lesson 2-10, the Assessment Check-In focuses on 4.G.2, right angles, and gives additional questions for the students who excel.

All unit assessment items are on Grade 4 level. There are no scoring rubrics provided for the educators; however, all assessments do provide answer keys.

EARNED 2 of 2 POINTS

4/4 **CRITERION (1B)**

Students and teachers using the materials as designed devote the large majority[1] of class time in each grade K-8 to the major work of the grade.

The Grade 4 Everyday Mathematics materials do meet expectations for devoting the large majority of class time to the major work of the grade level. The Grade 4 Everyday Mathematics engages students in the major work of the grade about 88 percent of the time.

Indicator 1b

Instructional material spends the majority of class time on the major cluster of each grade.

The instructional materials reviewed for Grade 4 meet the expectations for focus by spending the majority of the time on the major clusters of the grade. This includes all the clusters in 4.NBT and 4.NF and cluster 4.OA.A.

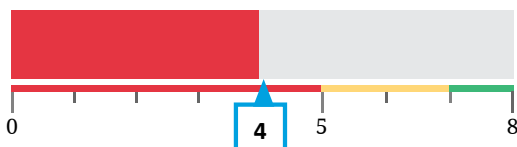
The Grade 4 materials do spend the majority of class time on the major clusters of the grade. Work was not calculated by units since the units spiral and are not clustered by groups of standards. There are eight units with approximately 8-13 lessons per unit. Assessment days were not included in these calculations.

Additionally, each unit has a 2-day open response lesson; the open response lessons were counted as one lesson. At the lesson level, the lessons are divided into warm up, focus, and practice. Each day consists of approximately 5-10 minutes on warm up, 30-45 minutes of a focus, and 15-25 minutes of practice. To determine the amount of time on major work, the standards covered in the focus lessons were considered since that is where direct instruction takes place, and the majority of the lesson takes place during this time.

- Approximately ninety-two lessons out of the 104 are focused on the major work. This represents approximately 88 percent of the lessons.
- Eleven lessons out of the 104 are focused on the supporting work of the grade. This work was treated separately from the major work of the grade.
- One lesson out of the 104 is focused on off, grade-level work. Lesson 4-3 focuses on 5.OA.A.1, using parentheses in numerical expressions and evaluating the expressions.
- Two lessons out of the 104 focus on other content. In Lesson 1-8, students try to figure out a code for muffin orders. In Lesson 2-6, students measure two dogs with dog treats and then with paper clips.

EARNED 4 of 4 POINTS

**COHERENCE
DOES NOT MEET EXPECTATIONS**



The instructional materials reviewed for Grade 4 *Everyday Mathematics* partially meet the expectations for Gateway One. Future grade-level standards are not assessed, and the materials devote a majority of the time to the major work of the grade. At times, the instructional materials connect supporting work with the major work of the grade, but often, the materials do not. Although the materials provide a full program of study that is viable for a school year, students are not given extensive work with grade-level problems. Connections between grade levels and domains are missing. Overall, the instructional materials meet the expectations for focusing on the major work of the grade, but the materials are not always consistent and coherent with the standards.

4/8

CRITERION (1C-1F)

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

The instructional materials reviewed for Grade 4 do not meet the expectations for coherence. At times the instructional materials use supporting content as a way to continue working with the major work of the grade, but often the materials do not. For example, connections between measurement and data and major work of the grade are missed. The materials include a full program of study that is viable content for a school year, including

approximately 32 weeks of lessons and assessment. All students are not given extensive work on grade-level problems. Prior grade-level content is not consistently identified, and materials do not explicitly connect grade-level concepts to prior knowledge from earlier grades. These instructional materials are shaped by the cluster headings in the standards; however, only surface-level connections are made between domains. Overall, the Grade 4 materials do not support coherence and are not consistent with the progressions in the standards.

Indicator 1c

Supporting content enhances focus and coherence simultaneously by engaging students in the major work of the grade.

The instructional materials reviewed for Grade 4 partially meet expectations that supporting content enhances focus and coherence by engaging students in the major work of the grade. In some cases, the supporting work enhances and supports the major work of the grade level, and in others, it does not.

The supporting work is treated separately about half the time. There were approximately 42 of the 104 lessons which were focused on supporting work and approximately 21 of the lessons supported major work. At times, supporting content does enhance focus and coherence by engaging students in the major work of the grade. Examples of the connections between supporting work and major work include the following:

- Lesson 1-13 connects supporting standards 4.MD.1 and 4.MD.3 with 4.NBT.4 and 4.NBT.5, major work of the grade.
- Lesson 2-13 connects supporting standard 4.OA.5 with 4.NBT.4 and 4.NBT.5, major work of the grade.
- Lesson 5-9 connects supporting standard 4.MD.4 with 4.NF.3 and 4.NF.3.C, major work of the grade.
- Lesson 7-8 connects supporting standards 4.MD.1 and 4.MD.2 with 4.NBT.5 and 4.NBT.6, major work of the grade.

At times, standards listed at the beginning of each unit are logically connected to each other; however, when the specific work of the unit and lessons is examined, some connections are missed or not specifically noted for teacher or students. Also, many lessons address supporting work in isolation from major work of the grade. Examples of lessons without connections between supporting and major work include the following:

- Lesson 2-10 is focused on Classifying Triangles. The focus portion of this lesson is aligned to 4.G.2 with no explicit connection to major work of the grade.
- Lesson 6-9 is focused on Measuring Angles. The lesson focuses on supporting standards 4.MD.5, 4.MD.5.A, 4.MD.5.B, and 4.MD.6.
- Lesson 6-10 is focused on Using a Half-Circle Protractor. The focus portion of this lesson is aligned to supporting standards 4.MD.5, 4.MD.5.A, 4.MD.5.B and 4.MD.6.
- Lesson 7-9 includes an "Identifying Figurative Number Patterns" Math Journal worksheet that is aligned to major work 4.NBT.6, but the worksheet does not focus on finding whole-number quotients and remainders with up to four-digit dividends and one-digit divisors. The focus of this lesson is on supporting standards 4.OA.5 and 4.MD.3.

EARNED 1 of 2 POINTS

Indicator 1d

The amount of content designated for one grade level is viable for one school year in order to foster coherence between grades.

The instructional materials reviewed for Grade 4 meet the expectations for the amount of content designated for one grade level being viable for one school year in order to foster coherence between grades. The suggested pacing includes 112 days of lessons (104 lessons total) and another 16 days allowed for assessment, making 128 days of materials. According to the Teacher Guide on page xxxvi, each lesson is expected to last between 60-75 minutes. The online curriculum states to use Friday's as a Flex Day for games and intervention work. With Fridays being included as Flex Days, this curriculum allows for approximately 32 weeks of instruction.

EARNED 2 of 2 POINTS

Indicator 1e

Materials are consistent with the progressions in the Standards i. Materials develop according to the grade-by-grade progressions in the Standards. If there is content from prior or future grades, that content is clearly identified and related to grade-level work ii. Materials give all students extensive work with grade-level problems iii. Materials relate grade level concepts explicitly to prior knowledge from earlier grades.

The instructional materials reviewed for Grade 4 do not meet the expectations for being consistent with the progressions in the standards. Content from prior grades is not clearly identified or connected to grade-level work, and students are not given extensive work with grade-level problems.

Material related to prior, grade-level content is not clearly identified or related to grade-level work. The Grade 4 materials have one instance where prior, grade-level content is present and not identified as such. Lesson 4-3 focuses on 5.OA.1, using parentheses in numerical expressions and evaluating expressions. Often the sample answers include off, grade-level answers, and this is not identified for the teachers. For example, on page 128, the math masters answer key for page 54 shows students using parentheses in their answers, 5.OA.1. While the problems could be solved without using the parentheses, this could lead teachers to believe they must be included in the answer.

The content does not always meet the full depth of standards. This mainly occurs because of a lack of lessons addressing the full depth. For example, there are nine lessons listed for 4.NF.1; however, only 3 lessons actually are aligned to the standard. Another example is fractions. In Grade 4, there are 11 standards devoted to fractions (not including decimals), all of which are major work; there are 33 lessons for fractions.

Everyday Mathematics Grade 4 materials do not provide extensive work with grade-level standards. For example, the instructional materials do not provide extensive work with the following standards:

- 4.NF.1: Only three lessons align to this standard, 3-1, 3-2, and 3-3.
- 4.NF.4.A: There are two lessons aligned to this standard.
- 4.NF.7: There are two lessons aligned to this standard, lessons 3-10 and 3-13.

In lessons where prior knowledge is needed, the instructional materials do not state that prior knowledge is being used. When future grade-level concepts are introduced, there is no mention that the concept will be used in future grades. If the teacher uses the spiral trace at the beginning of the lesson or unit, the teacher will know where prior knowledge is used and when the student will use the skill/concept again in the future. The spiral trace is not extensive and does not show where the students learning is really headed. It is listed by lessons and not connecting standards. At the beginning of each unit, the spiral trace provides an explanation of what will occur by the end of the unit, but the spiral trace does not explain any further and does not connect to the next standard.

EARNED 0 of 2 POINTS

Indicator 1f

Materials foster coherence through connections at a single grade, where appropriate and required by the Standards i. Materials include learning objectives that are visibly shaped by CCSSM cluster headings. ii. Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important.

The instructional materials reviewed for Grade 4 partially meet the expectations for fostering coherence through connections at a single grade, where appropriate and when the standards require. Overall, materials include learning objectives that are visibly shaped by CCSSM cluster headings, but there are missed opportunities to provide problems and activities that connect two or more clusters in a domain or two or more domains when these connections are natural and important.

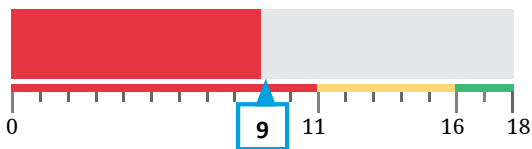
Instructional materials shaped by cluster headings include the following examples:

- Lesson 1-1, "Place Value in Whole Numbers," is shaped by 4.NBT.A.
- Lesson 3-3, "Number Lines and Equivalence," is shaped by 4.NF.A.
- Lesson 6-6, "Measuring Angles," is shaped by 4.MD.C.
- Lesson 7-10, "Solving Multistep Fraction Number Stories," is shaped by 4.NF.B.

While the materials have many instances where two or more domains are connected, often the connections are only surface-level connections. For example, in lesson 4-13, it shows connections between 4.NBT.2, 4.NBT.3, 4.NBT.5, 4.NF.6, and 4.NF.7. However, the lesson is divided into parts, and the parts only truly address one standard at a time.

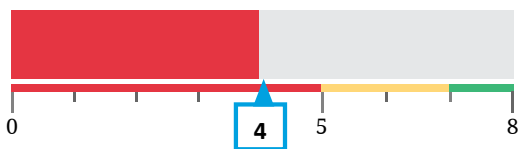
EARNED 1 of 2 POINTS

**GATEWAY 2: RIGOR AND MATHEMATICAL PRACTICES
DOES NOT MEET EXPECTATIONS**



The instructional materials reviewed for Grade 4 do not meet the expectations for rigor and MPs. The instructional materials do not meet the expectations for the indicators on rigor and balance, nor do they meet the expectations of the indicators on practice-content connections. Overall, the instructional materials are stronger in regards to procedural skill and fluency and identifying MPs, although improvements are still needed to for those to fully meet the standards as well.

**RIGOR AND BALANCE
DOES NOT MEET EXPECTATIONS**



The instructional materials reviewed for Grade 4 do not meet the expectations for rigor and MPs. The instructional materials do not meet the expectations for the indicators on rigor and balance, nor do they meet the expectations of the indicators on practice-content connections. Overall, the instructional materials are stronger in regards to procedural skill and fluency and identifying MPs, although improvements are still needed to for those to fully meet the standards as well.

CRITERION (2A-2D)

Rigor and Balance: Each grade's instructional materials reflect the balances in the Standards and help students meet the Standards' rigorous expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application.

The instructional materials reviewed for Grade 4 do not meet expectations for rigor and balance. The instructional materials do not give appropriate attention to conceptual understanding or application. The materials do a better job of giving attention to procedural skill and fluency; however, the full meaning of procedural skill and fluency is still not met. Overall, because of not fully meeting expectations for procedural skill and fluency, application, and conceptual understanding, the instructional materials do not reflect the balances in the CCSSM.

Indicator 2a

Attention to conceptual understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings.

Materials partially meet the expectation for developing conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings. Frequently, opportunities are missed. Opportunities for students to work with standards that specifically call for conceptual understanding occur by use of pictures, manipulatives, and strategies, but they frequently fall short by not providing higher-order thinking questions to truly determine students' understandings.

The spiral tracker cites many instances of exposure to 4.NF.A, 4.NF.B and 4.NF.C, all of which require the development of conceptual understanding. Analysis of the lessons indicate only 13 lessons for 4.NF.A, 19 lessons for 4.NF.B, and 9 lessons for 4.NF.C. When looking at the lessons, the majority of the lessons do not develop conceptual understanding but instead give students a procedure to follow. Frequently, they work to develop conceptual understanding is through the math boxes, math journal, and games in the lessons. The teacher-provided directions and questions often remove the opportunity for students to develop conceptual understanding and create a procedural approach.

- In the lessons on fractions, there is one open response lesson in unit 5 about fractions. Students spend two days discussing a word problem about inheriting land. However, there is only one answer to this question and one entry point to the problem.
- In lesson 3-4, students are required to develop a rule for finding equivalent fractions. Instead of working with number lines and models, they are introduced to standard multiplication to find the equivalent fraction. With the way this lesson is set-up, students are simply employing a rule to find the answer.
- In lesson 3-7, students are required to put fractions in order. The first page is done with the use of visual fraction models. The second page is done with number lines. However, only one problem gives any fractions on the number line to help students reason about their size.

Some attention to Conceptual Understanding is found in the Professional Development boxes throughout the Teacher Edition.

- On page 242 of the Teacher Edition, the Professional Development box reminds teachers to develop understanding instead of pushing multiplication by 1 (and explains why).
- On page 326 of the Teacher Edition, the Professional Development box has strong commentary on the development of the unit. However, the box indicates an intentional emphasis on math facts in an attempt to build towards understanding.

There are many missed opportunities for the daily math message to provide a problem which would lead to student questioning and conceptual understanding of key topics. For example, lesson 5-5 is about adding tenths and hundredths; while the math message is about tenths and hundredths, students only write the "number model." This could have been a rich problem filled with mathematical discourse before the lesson to build conceptual understanding, but instead it is treated very procedurally.

EARNED **1 of 2** POINTS

Indicator 2b

Attention to Procedural Skill and Fluency: Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency.

The instructional materials reviewed for Grade 4 partially meet the expectation for giving attention throughout the year to individual standards that set an expectation of procedural skill and fluency. While lessons do exist to work on fluencies required at the fourth grade level, the lessons do not build upon each other to help students reach fluency, particularly with 4.NBT.4.

The instructional materials lack activities to build fluency adding and subtracting multi-digit whole numbers using the standard algorithm. There are two lessons on the standard algorithm, which is the first time students are exposed to the standard algorithm. The online spiral tracker shows 81 exposures to 4.NBT.B.4 in focus lessons. When analyzing the lessons, many of the instances noted in the tracker show multiple exposures for the same lesson. Some of the lessons are not having students add and subtract multi-digit numbers. In lesson 1-5, students are rounding and then adding using friendly numbers. Lesson 1-10 has students converting yards, feet, and inches which involves multiplication but does not have students adding or subtracting. In chapter one, where the tracker showed 21 exposures, there are only eight actual lessons, and of those, only two align to the stated standard, lessons 1-7 and 1-9.

There are some places where fluency is given attention in the materials.

- Most lessons in the materials have a "Mental Math and Fluency" piece which allows for students to practice fluencies required in Grade 4.
- Several online games help students with the expectation of fluency, including: Baseball Multiplication, Multiplication Top-It, Beat the Computer, and Multiplication Bingo. It is important to note none of the online games have students practicing division.
- Online is a reference sheet called "Do Anytime Activities" with suggestions to help students practice fluencies at home.
- There is a fact check in the assessment book for teachers to mark when mastery of facts is accomplished.
- Math Boxes are used during each lesson which consist of an average of six problems for students to complete. These problems do not connect to each other and are pulled from several different clusters and/or domains for students to complete for practice and maintenance of previous skills.

EARNED **1 of 2** POINTS

Indicator 2c

Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications of the mathematics, without losing focus on the major work of each grade

The materials partially meet the expectation for being designed so that teachers and students spend sufficient time working with engaging applications of the mathematics, without losing focus on the major work of each grade.

Most problems are presented in the same way throughout the entire curriculum. There is little variety of problems or types of problems. Problems are presented as short, one-correct-answer problems. Some of the problems are tied together through concepts and ideas, but many times lessons are completely disjointed from one another. Each unit contains a two-day "Open Response" lesson which engages students

in application of mathematics. For example, lesson 6-5 has students engaging in application of the mathematics where students are asked to create fruit baskets using multiple fruits. Online in the resource section, some "Projects" are available to help students with application of math.

Standard 4.OA.3 has 106 exposures within the curriculum and is listed as the focus of 14 days of Focus lessons.

- The Focus portions of Lessons 1-5, 1-6, 1-7, 1-9, 4-2, 4-12, 5-13, 6-5 (2 days), 6-8, 7-7, 7-12, 8-1, and 8-9 are aligned to 4.OA.3.
- Lesson 1-5 is aligned to 4.OA.3. The Focus portion of the lesson addresses estimation, but the problems are scaffolded and center more on the different strategies that were introduced in the lesson than on computation. The Math Masters "Using Estimation Strategies" worksheet includes a family note that states "Today students explored different ways of estimating...While all methods of estimation are equally valid, some may be more helpful than others for answering specific kinds of questions." The note never mentions computation, and the directions state "Read the number stories. Choose an appropriate estimation strategy."
- Lesson 1-6 also focuses on estimation. The "World's Tallest Buildings" Math Journal provides five multi-step word problems. These problems require students to provide estimates and answers. However, on page 46 of the Teacher's Lesson Guide, teachers are told to do the following: "Referring students to the Guide to solving Number Stories on page 26 of the *Student Reference Book*, guide a discussion of the problem-solving process." This procedure for students to follow when solving number stories along with the scaffolding accompanying the problems detracts from the true application of the standard.
- The focus portion of Lesson 4-2 is also aligned to 4.OA.3. Again, this lesson is addressing estimation without a focus on computation. The Math Journal activity "Finding Estimates and Evaluating Answers" requires students to write estimates and then "(u)se a calculator to solve the problem."
- The Focus portion of Lesson 4-12 also addresses estimation. Although the Math Journal "Solving Multistep Multiplication Number Stories" does provide four multi-step word problems, the Teacher's Lesson Guide again scaffolds the problem solving and detracts from the true application of the standard (page 398).
- The focus portion of Lesson 5-13 includes a "Planning a School Fair" Math Journal activity. The activity includes five problems, but only one of the five problems is not scaffolded for students.
- The Focus portion of Lesson 6-8 addresses solving division number stories with remainders. Students complete the "Interpreting Remainders" Math Journal activity. The activity is very scaffolded. The top of the worksheet has bulleted steps for how to solve each problem, and three of the four word problems are scaffolded for students.
- Lesson 7-12 includes a "Shopping at the Stock-Up Sale" Focus activity. This activity includes four word problems. Although the problems are multi-step, the word problems are very brief, and the context is very thin.
- Lesson 8-1 includes "Cracking a Number Story Code" Focus activity. The activity requires students to solve eight multi-step word problems to crack a code.

Standard 4.NF.3.D has 76 exposures within the curriculum and is listed as the focus of 15 days of Focus lessons.

- The Focus portions of Lessons 5-3, 5-4, 5-7, 5-8, 6-12, 7-6, 7-11, 7-12, 8-5, 8-6, 8-7, 8-8, 8-9, 8-10, and 8-11 are aligned to 4.NF.3.D.
- The Focus portion of Lesson 5-3 focuses on fraction addition number stories. True application of the standard is not achieved because the problems are clearly identified as addition problems, so students know that they simply need to add the two fractions in the word problems. Also, on the "Fraction Addition" Math Journal worksheet, the problems are scaffolded, and students are required to use different strategies to solve each of the two word problems. Also, the worksheet includes three fraction addition problems which also clue the student to add the numbers.
- The Focus portion of Lesson 5-4 focuses on mixed number addition problems. True application of the standard is not achieved because the problems are clearly identified as addition problems, so students

know that they simply need to add the two fractions in the word problems. Also, on the "Adding Mixed Numbers" Math Journal worksheet, the problems are scaffolded, and students are required to use different strategies to solve each of the two word problems. Also, the worksheet includes four mixed number addition problems which also clue the student to add the numbers.

- The Focus portion of Lesson 5-7 focuses on fraction subtraction number stories. True application of the standard is not achieved because the problems are clearly identified as subtraction problems, so students know that they simply need to subtract the two fractions in the word problems. Also, on the "Fraction Subtraction Number Stories" Math Journal worksheet, the problems are scaffolded, and students are required to use different strategies to solve each of the two word problems. Also, the worksheet includes four fraction subtraction problems which also clue the student to subtract the numbers.
- The Focus portion of Lesson 5-4 focuses on mixed number subtraction problems. True application of the standard is not achieved because the problems are clearly identified as subtraction problems, so students know that they simply need to subtract the two fractions in the word problems. Also, on the "Subtracting Mixed Numbers" Math Journal worksheet, the problems are scaffolded, and students are required to use different strategies to solve each of the two word problems. Also, the worksheet includes four mixed number subtraction problems which also clue the student to add the numbers.
- The Focus portion of Lesson 6-12 focuses on addition and subtraction number stories with fractions and mixed numbers. The "Fraction Number Stories" Math Journal activity provides six word problems. Although they are routine problems, some of them are multi-step. Some of the problems contain additional questions for students to answer after answering the original question, but this follow-up question is separate from the original question.
- Lesson 7-6 includes a "Three-Fruit Salad" activity which requires students to create a recipe. This multi-step application problem has multiple solutions and entry points for students.
- Lessons 7-12 and 8-7 are focused on Decimal Number Stories. The included word problems in Lesson 7-12 are all focused on money, and the connection to fractions is only made when students convert decimals to fractions, and in Lesson 8-7 the decimals are all "simple" (tenths). The connection to standard 4.NF.3.D is only made if students follow the procedure to solve the problems that has been introduced in the focus portion of the lesson.
- Lesson 8-10 includes a "Making Sparkling Punch" activity. The application of addition and subtraction of fractions is limited because only two of the five ingredients in the recipe are fractions.
- Lesson 8-11 includes a "Puppy Feeding Guidelines" activity which allows students to apply both standards 4.NF.3.D and 4.NF.4.C.

Standard 4.NF.4.C has 64 exposures within the curriculum and is listed as the focus of 15 days of Focus lessons.

- The Focus portions of Lessons 6-13, 7-2, 7-3, 7-4, 7-5, 7-6 (2 days), 7-10, 7-11, 7-12, 8-7, 8-8, 8-9, 8-10, and 8-11 are aligned to 4.NF.4.C.
- The Focus portion of Lesson 6-13 focuses on multiplying a fraction by a whole number. Four of the five problems on the "Making Lip Balm" Math Journal worksheet are scaffolded, requiring students to fill in the blanks for addition and multiplication equations.
- The Focus portion of Lesson 7-2 focuses on multiplication number stories. True application of the standard is not achieved because the problems are clearly identified as multiplication problems, so students know that they simply need to multiply two numbers. On the "Baking Muffins" Math Journal worksheet, the fractions are all multiplied by either three or four. Most of the problems are of the same type making the activity routine.
- Lesson 7-3 is aligned to 4.NF.4.C. On the "Multiples of Unit Fractions" Math Journal, there are only two word problems. The seven other problems on the page cue students to solution methods to the word problems and do not allow for true application of the standard.
- In Lesson 7-4, the problems on "The Walking Club" Math Journal are too scaffolded to allow application of the standard. Each problem prompts students to write a multiplication equation.

- The Focus portion of Lesson 7-5 focuses on multiplying mixed numbers by whole numbers. True application of the standard is not achieved because the problems are clearly identified as multiplication problems, so students know that they simply need to multiply the two numbers in the word problems. Also, on the "Solving Number Stories" Math Journal worksheet, the problems are scaffolded, and students are required to use different strategies to solve each of the two word problems. Also, the worksheet includes four multiplication problems with an integer and a fraction which also clue the student to multiply the numbers.
- Lesson 7-6 includes a "Three-Fruit Salad" activity which requires students to create a recipe. This multi-step application problem has multiple solutions and entry points for students.
- Lesson 7-10 includes a "Burning 100 Calories" activity. Although the problems have thin contexts, students are able to choose their own solution methods.
- Lessons 7-12 and 8-7 are focused on Decimal Number Stories. The included word problems in Lesson 7-12 are all focused on money, and the connection to fractions is only made when students convert decimals to fractions and, in Lesson 8-7, the decimals are all "simple" (tenths). The connection to standard 4.NF.4.C is only made if students follow the procedure to solve the problems that has been introduced in the Focus portion of the lesson.
- In Lessons 8-7 through 8-11, contexts are often expected but require application of the standard. For example, Lesson 8-11 includes a "Puppy Feeding Guidelines" activity which allows students to apply both standards 4.NF.3.D and 4.NF.4.C. Often multiple problems focus on the same context, for example sewing, allowing problems to become more procedural and require less true application.

EARNED 1 of 2 POINTS

Indicator 2d

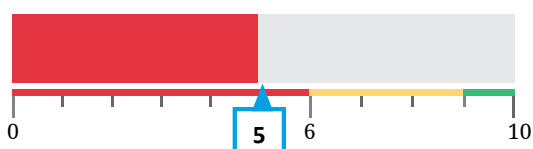
Balance: The three aspects of rigor are not always treated together and are not always treated separately. There is a balance of the 3 aspects of rigor within the grade.

The Grade 4 Everyday Mathematics instructional materials partially meet the expectations for balance. Overall, the three aspects of rigor are neither always treated together nor always treated separately within the materials. However, the lack of lessons on conceptual understanding and application do not allow for a balance of the three aspects.

Despite efforts to include conceptual understanding and application, problems are all too often presented in a formulaic way. Questions give away the answers or prompt specific thought patterns. The order of questions often leads students to a specific procedure. Contexts are frequently thin, and problems are posed in a way in which students can solve them by relying on procedural skill. All aspects of rigor are almost always treated separately within the curriculum including within and during lessons and practice.

EARNED 1 of 2 POINTS

MATHEMATICAL PRACTICE-CONTENT CONNECTIONS DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 4 do not meet the expectations for practice-content connections. Overall, in order to meet the expectations for meaningfully connecting the Standards for Mathematical Content and the MPs, the instructional materials should carefully pay attention to the full meaning of every practice standard, especially MP3 in regards to students critiquing the reasoning of other students and the use of correct vocabulary throughout the materials.

CRITERION (2E-2G)

Practice-Content Connections: Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice

Indicator 2e

The Standards for Mathematical Practice are identified and used to enrich mathematics content within and throughout each applicable grade.

The instructional materials reviewed for Grade 4 partially meet the expectations for identifying the MPs and using them to enrich the mathematics content.

The MPs are identified in the Grade 4 materials for each unit and the focus part of each lesson.

- For Unit 3, page 219 discusses how MP3 and MP4 unfold within the unit and lessons.
- For Unit 5, page 429 identifies which MPs are in the focus parts of the lessons within the unit.
- For Unit 6, page 541 discusses how MP5 and MP7 unfold within the unit and lessons.
- For Unit 8, page 751 discusses how MP1 and MP4 unfold within the unit and lesson.
- Within the lessons, there are spots where the MPs are identified.

However, within the lessons no teacher guidance on how to help students with the MPs is given. Because there is no guidance on implementation, it is difficult to determine how meaningful connections are made. Additionally, it is difficult to determine if the MPs have meaningful connections, since the materials break them into small parts and never address the MPs as a whole. The broken apart MPs can be seen on pages EM8-EM11. In a lesson, this can be seen in 2-8, page 168 TE.

EARNED 1 of 2 POINTS

Indicator 2f

Materials carefully attend to the full meaning of each practice standard

The Grade 4 Everyday Mathematics instructional materials partially meet the expectation for treating each MP in a complete, accurate, and meaningful way. The lessons do not give teachers guidance on how to implement the standards.

Below are examples of where the full intent of the MP is not met.

- MP1: Lesson 8-1 cites MP1 and says "students will be solving stories that are more challenging but use the skills they already now;" however, in looking at the problems they are limited to two-step problems, a Grade 3 standard, which would not require students to persevere necessarily. Lesson 2-7 cites MP1; however, simply asking students "what happens when we go from a larger unit of time to a smaller unit" is not having students persevere in a problem. Lesson 3-2 cites MP1; telling students they should only use one color at a time and record a fraction to describe each of the different ways they find does not have student's persevering with problems.
- MP2: Lesson 1-2 cites MP2 but has students writing numbers in expanded form; this does not have students reasoning abstractly and quantitatively.
- MP4: Lesson 2-9 and 3-1 cite MP4; however, telling students how to model the problem does not meet the intent of practice. Lesson 3-6 cites MP4 and tells the students to use a visual fraction model, again not meeting the intent.
- MP5: Lesson 1-1 cites MP5; however, the students are told to use calculators. Lesson 2-7 cites MP5 and again tells students which tools to use. Lesson 7-4 cites MP5, use tools appropriately; however, in the

lessons, students are given the tools with which they are to work and not allowed to choose the tools.

- MP6: Lesson 1-5 cites MP6; having students discuss real-life situations in which an estimate might be useful is not having students attend to precision. Lesson 2-3 cites MP6; however, reminding students that 2 and 7 are factors of 14 and asking for the other factor pair is not having students attend to precision. Lesson 3-9 cites MP6; students answering "what strategy did you use when comparing fractions and try to make a match" is not necessarily having students attend to precision.
- MP8: Lesson 7-5 cites MP8, but in the lesson, there is no indication students are looking for structure when playing "Divide and Conquer."

EARNED **1 of 2** POINTS

Indicator 2g.i

Materials prompt students to construct viable arguments and analyze the arguments of others concerning key grade-level mathematics detailed in the content standards.

The materials partially meet the expectation for prompting students to construct viable arguments and analyze the evidence of others. MP3 is not explicitly called out in the student material. Although the materials at times prompt students to construct viable arguments, the materials miss opportunities for students to analyze the arguments of others, and the materials rarely have students do both together.

There are some questions that do ask students to explain their thinking on assessments and in the materials. Sometimes there are questions asking them to look at other's work and tell whether the student is correct or incorrect and explain. Little direction is provided to make sure students are showing their critical thinking, process or procedure, or explaining their results. Many questions that prompt students to critique the reasoning of others tell the student if the reasoning was originally correct and incorrect. MP3 is not even called out until Unit 3 as a focus practice standard and then doesn't show up until lesson 6. Here, it is labeled next to the directions "Invite students to justify their conclusions." It should be noted, though, that student materials never explicitly call out entire MPs at once; MP3 is broken into GMP 3.1 and GMP 3.2 in the materials.

The open response lessons could be opportunities for students to construct arguments for or against a mathematical question. However, besides just working in groups, there is little prompting from the teacher for students to discuss the answers of other groups or students. The following are some examples of where the materials indicate that students are being asked to engage in MP3:

- In the Unit 8 assessment on page 835, question 5, students are asked to explain how they solved problem 4. However, students are not asked to work with other students and really explain and defend their thinking.
- Math Journal page 72, problem 5, asks students if they agree with Sharita's reasoning; Sharita is a fictional student.
- Math Masters, page 111, problem asks students if they agree with Margot's reasoning; Margot is a fictional student.
- The first problem on the "Sharing Veggie Pizza" Math Masters in Lesson 3-5 homework has two answers, and students must choose the right answer. Students do not provide an explanation for their choice other than to add on to the provided drawing.
- In the Lesson 3-13 Math Message Follow-Up, teachers are told to "(h)ave students explain how they knew which decimal was larger." However, students are not given an opportunity to work with other students and really explain and defend their thinking.
- In Lesson 3-13, on page 305, the summarize problem asks students the following: "How can you help Vanna see her mistake?" A follow-up question states "What incorrect reasoning do you think Vanna used to get her answer?" These questions do not allow students to truly analyze the thinking of others because they are told that the thinking is incorrect.

Indicator 2g.ii

Materials assist teachers in engaging students in constructing viable arguments and analyzing the arguments of others concerning key grade-level mathematics detailed in the content standards.

The materials partially meet the expectation for assisting teachers in engaging students in constructing viable arguments and analyzing the arguments of others concerning key grade-level mathematics detailed in the content standards. The Grade 4 materials sometimes give teachers questions to ask students to have them form arguments or analyze the arguments of others, but typically the materials do not give both at the same time. In the teacher's guide and lessons, the teachers have very specific, almost scripted, directions for students. Most, if not all, of the Math Master worksheets are presented in a step-by-step directive that does not allow for students to evaluate, justify, or explain their thinking. Usually only one right answer is available to the posed problem, and there is not a lot of teacher guidance on how to lead the discussion given besides a question to ask. There are many missed opportunities to guide students in analyzing the arguments of others. Students spend time explaining their thinking but not always justifying their reasoning and creating an argument.

The following are examples of lessons aligned to MP3 that have missed opportunities to assist teachers in engaging students in constructing viable arguments and analyzing the arguments of others:

- Lesson 3-6 states "Justify their conclusions." The missed opportunity here is for teachers to guide students in a rich discussion about what strategies they used and why.
- Lesson 3-7 states "have the students justify their conclusion," but teachers are not given guidance to help students explore their justifications or the justifications of others.
- Lesson 3-10 cites MP3, and again it asks students to justify. Teachers are not given guidance to help students explore their justifications or the justifications of others.
- Lesson 4-11 has students explain how they solved the problem. Again, there is not instruction or guidance for the teacher to help the students explore the explanations of others.
- During the "Solving an Area Problem with Fractions" activity in Lesson 8-9, the teacher guide states on page 807 to "(h)ave partnerships solve Problem 1 and discuss responses as a class," but teachers are not given guidance to facilitate this conversation.

Indicator 2g.iii

Materials explicitly attend to the specialized language of mathematics.

The instructional materials reviewed for Grade 4 partially meet the expectations for explicitly attending to the specialized language of Mathematics. Overall, the materials for both students and teachers have multiple ways for students to engage with the vocabulary of Mathematics; however, often the correct vocabulary is not used.

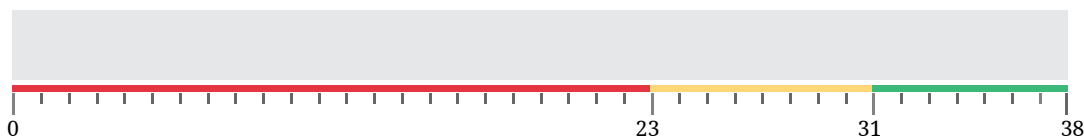
- Each unit includes a list of important vocabulary in the unit organizer which can be found at the beginning of each unit.
- Vocabulary terms are bolded in the teacher guide as they are introduced and defined but are not bolded or stressed again in discussions where students might use the term in discussions or writing.
- Each regular lesson includes an online tool, "Differentiating Lesson Activities." This tool includes a component, "Meeting Language Demands," that includes vocabulary, general and specialized, as well as strategies for supporting beginning, intermediate, and advanced ELLs. An example of this from

Lesson 5-5 includes "For beginning ELLs use visual aids and restatements to make task directions comprehensible and to explain word meanings."

- Everyday Math comes with a Reference book that uses words, graphics, and symbols to support students in developing language.
- Some units have a heavy load of required mathematical vocabulary. For example, in Unit 2, there are 39 vocabulary words needed for the students in Grade 4 to understand the unit. In contrast, Unit 7 only has 5 vocabulary words for the unit which is a much more manageable number for students in Grade 4.
- Correct vocabulary is often not used. For example, "Turn-around fact" is used rather than the term commutative property, number sentence is used instead of equation, "name-collection box" instead of equivalent equations or equivalent expressions, "number model" instead of expression, trade-first subtraction, and "top-heavy fraction" instead of fraction.

EARNED **1 of 2** POINTS

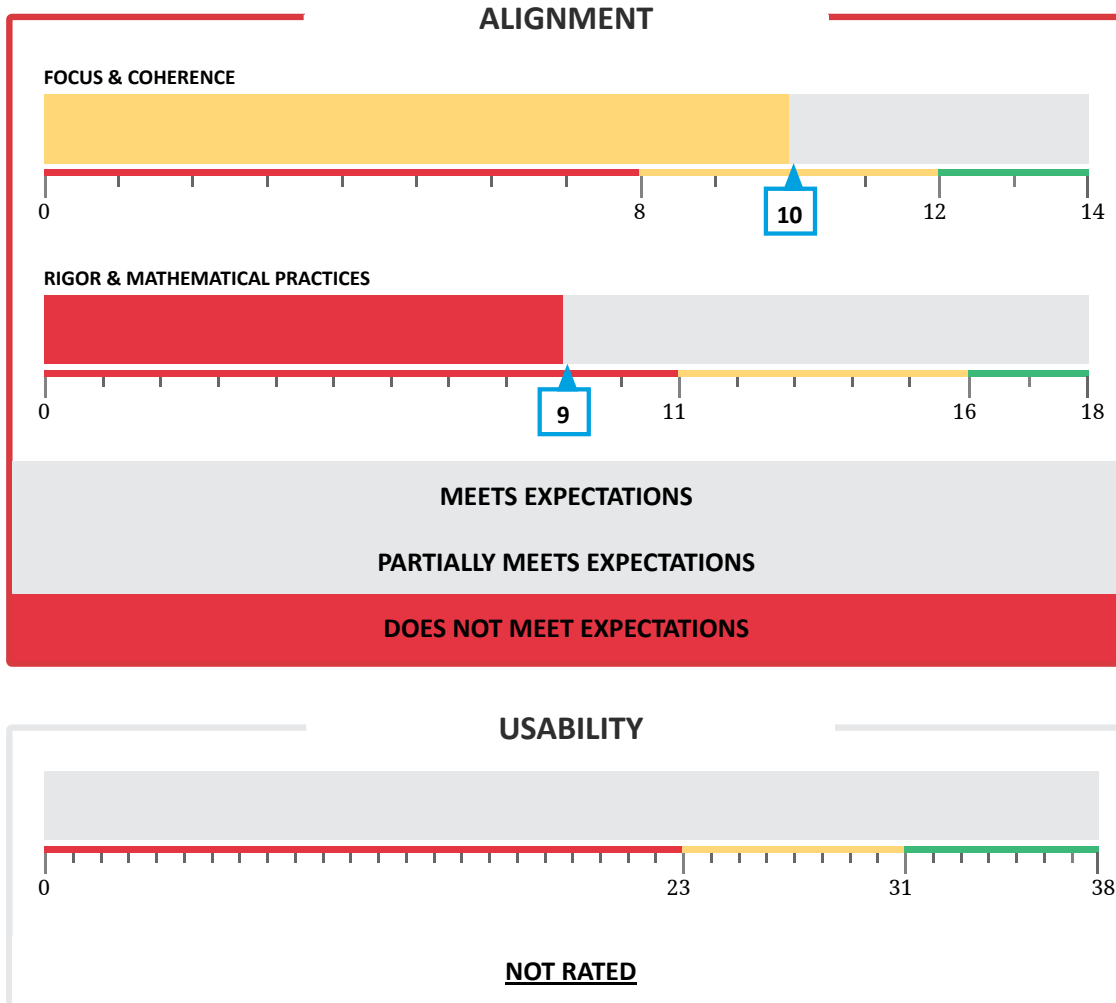
GATEWAY 3: USABILITY DID NOT REVIEW



This material was not reviewed for Gateway Three because it did not meet expectations for Gateways One and Two

GRADE 5 EVERYDAY MATH GRADE 5

PUBLISHER: MCGRAW-HILL EDUCATION SUBJECT: MATH

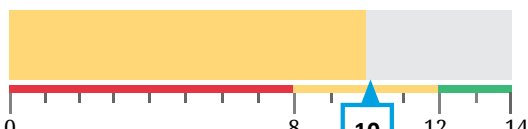


ALIGNMENT

EVERYDAY MATH GRADE 5 GRADE 5 DOES NOT MEET EXPECTATIONS FOR ALIGNMENT

The instructional materials reviewed for Grade 5 do not meet the expectations for alignment to the CCSSM. The instructional materials partially meet the expectations for Gateway 1 as they appropriately focus on the major work of the grade but do not always demonstrate coherence within the grade and across other grades. The instructional materials do not meet the expectations for Gateway 2 as they do not appropriately address rigor within the grade-level standards, and there are missed opportunities in the materials when it comes to attending to the full meaning of the standards for mathematical practice.

GATEWAY 1: FOCUS & COHERENCE PARTIALLY MEETS EXPECTATIONS



The instructional materials reviewed for Grade 5 *Everyday Mathematics* partially meet the expectations for Gateway One. Future grade-level standards are not assessed, and the materials devote a majority of the time to the major work of the grade. At times, the instructional materials connect supporting work with the major work of the grade, but often, the materials do not. Although the materials provide a full program of study that is viable for a school year, students are not given extensive work with grade-level problems. Connections between grade levels and domains are missing. Overall, the instructional materials meet the expectations for focusing on the major work of the grade, but the materials are not always consistent and coherent with the standards.

FOCUS MEETS EXPECTATIONS



The Grade 5 *Everyday Mathematics* materials meet the expectations for focus. Future, grade-level standards are not assessed, and the materials devote a majority of the time to the major work of the grade. Overall, the materials meet the expectations for focus.

2/2 **CRITERION (1A)**

Materials do not **assess** topics **before** the grade level in which the topic should be introduced.

The Grade 5 *Everyday Mathematics* materials meet the expectations for not assessing topics before the grade level in which they should be introduced. All items on Unit assessments are focused on Grade 5 standards.

Indicator 1a

The instructional material **assesses** the grade-level content **and, if applicable**, content from earlier grades. Content from future grades may be introduced but students should not be held accountable on assessments for future expectations.

The instructional materials reviewed for Grade 5 meet the expectations for focus within assessment. Overall, the instructional materials do not assess content from future grades within the summative assessment sections of each unit.

The program allows for a Beginning-of-Year, Mid-Year, End-of-Year, and Unit Assessments which assess the Grade 5 standards. There are also eight unit assessments/progress checks. The unit assessments/progress checks have portions for Self Assessment, Unit Assessment, Open Response Assessment (odd numbered units), Cumulative Assessment (even numbered units), and a Challenge. These assessments can be found in the Assessment Handbook. The Individual Profile of Progress for tracking and class progress are present in both paper (pages 113-124 in the Assessment Handbook) and digital formats. Most lessons have an Assessment Check-in that can be used as either formative or summative assessment as stated in the implementation guide.

Assessment Check-Ins are part of most lessons and mostly assess grade level content. For example, in the teacher guide on page 64, lesson 1-8, the Assessment Check-In focused on 5.MD.3, 5.MD.3.B, and 5.MD.4, volume, and gives additional questions for the students who excel.

All unit assessment items are on Grade 5 level. There are no scoring rubrics provided for the educators; however, all assessments do provide answer keys. One exception is question 14 on the Unit 6 Assessment (page 55 of the Assessment Handbook). The context of the problem is not Grade 5 appropriate. It asks students to calculate the volume of a house. This problem could be either removed or the context changed without affecting the course for students.

EARNED 2 of 2 POINTS

CRITERION (1B)

Students and teachers using the materials as designed devote the large majority[1] of class time in each grade K-8 to the major work of the grade.

The Grade 5 Everyday Mathematics materials do meet expectations for devoting the large majority of class time to the major work of the grade level. The Grade 5 Everyday Mathematics engages students in the major work of the grade approximately 74 percent of the time.

Indicator 1b

Instructional material spends the majority of class time on the major cluster of each grade.

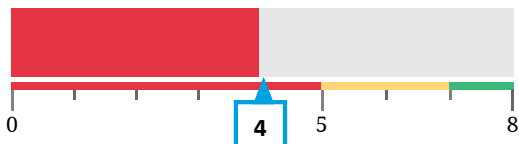
The instructional materials reviewed for Grade 5 meet the expectations for focus by spending the majority of the time on the major clusters of the grade. This includes all the clusters in 5.NBT and 5.NF and cluster 5.MD.C.

The Grade 5 materials do spend the majority of class time on the major clusters of the grade. Work was not calculated by units since the units spiral and are not clustered by groups of standards. There are eight units with between 12-14 lessons per unit. Assessment days were not included in these calculations. Additionally, each unit has a 2-day open-response lesson; the open-response lessons were counted as one lesson. At the lesson level, the lessons are divided into Warm Up, Focus, and Practice. Each day consists of 15-20 minutes on routines, 30-45 minutes of a core activity, and 15-20 minutes of practice. To determine the amount of time on major work, the standards covered in the focus lessons were considered since that is where direct instruction takes place and the majority of the lesson takes place during this time.

- Seventy-eight lessons out of the 105 are focused on the major work. This represents approximately 74 percent of the lessons. Additionally, another nine lessons, or approximately 9 percent are supporting work which truly supported the major work of the grade bringing the time spent on major work to approximately 83 percent.
- Two lessons out of the 105 are focused on off grade-level work. Lessons 2-13 and 3-3 focus on 4.OA.A.3, interpreting remainders.

EARNED **4 of 4** POINTS

COHERENCE DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 5 *Everyday Mathematics* partially meet the expectations for Gateway One. Future grade-level standards are not assessed, and the materials devote a majority of the time to the major work of the grade. At times, the instructional materials connect supporting work with the major work of the grade, but often, the materials do not. Although the materials provide a full program of study that is viable for a school year, students are not given extensive work with grade-level problems. Connections between grade levels and domains are missing. Overall, the instructional materials meet the expectations for focusing on the major work of the grade, but the materials are not always consistent and coherent with the standards.

4/8

CRITERION (1C-1F)

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

The instructional materials reviewed for Grade 5 do not meet the expectations for coherence. At times, the instructional materials use supporting content as a way to continue working with the major work of the grade, but often the materials do not. For example, connections between geometry and major work of the grade are

missed. The materials include a full program of study that is viable content for a school year, including approximately 32.5 weeks of lessons and assessment. All students are not given extensive work on grade-level problems. Prior, grade-level content is not consistently identified, and materials do not explicitly connect grade-level concepts to prior knowledge from earlier grades. These instructional materials are shaped by the cluster headings in the standards; however, only surface-level connections are made between domains. Overall, the Grade 5 materials do not support coherence and are not consistent with the progressions in the standards.

Indicator 1c

Supporting content enhances focus and coherence simultaneously by engaging students in the major work of the grade.

The instructional materials reviewed for Grade 5 partially meet expectations that supporting content enhances focus and coherence by engaging students in the major work of the grade. In some cases, the supporting work enhances and supports the major work of the grade level, and in others, it does not.

Units 3 and 5 are focused entirely on major work, so no specific opportunities to use supporting content to enhance focus and coherence by engaging students in the major work of the grade are found.

At times, supporting content does enhance focus and coherence by engaging students in the major work of the grade. Examples of the connections between supporting work and major work include the following:

- Lesson 2-6 connects supporting standards 5.OA.1, 5.OA.2 and 5.MD.1 with 5.NBT.5, major work.
- Lesson 6-3 connects supporting standard 5.MD.1 with 5.NBT.2, major work.
- Lessons 6-4 and 6-5 connect supporting standards 5.MD.1 and 5.MD.2 with 5.NF.1, 5.NF.2 and 5.NBT.6, all major work.
- Lesson 6-13 connects supporting standards 5.OA.1 and 5.MD.2 with 5.NBT.1 and 5.NBT.3, both major work.
- Lesson 7-9 connects supporting standard 5.MD.2 with 5.NF.1, 5.NF.2 and 5.NF.4, all major work.

At times, standards listed at the beginning of each unit are logically connected to each other; however, when the specific work of the unit and lessons is examined, some connections are missed or not specifically noted for teachers or students. Also, many lessons address supporting work in isolation from major work of the grade. Examples of lessons without connections between supporting and major work include the following:

- Lessons 4-6, 4-7, 4-9, and 4-10 focus on plotting points on a coordinate grid, 5.G.1 and 5.G.2. These lessons are not truly connected to major work of the grade. Although lesson 4-9 does connect plotting points to 5.OA.3, this standard is also not major work of the grade. Although some lesson activities do include both major and supporting standards, there are missed connections between the listed standards. For example, in Lesson 4-6, the Math Masters worksheet "Plotting Points to Create an Outline Map" is aligned to 5.G.1, 5.NBT.1, 5.NBT.3 and 5.NBT.3.A. Although both major and supporting work are addressed, the major work is the focus of the last two problems of the worksheet disconnected from the supporting work.
- Lessons 7-5, 7-6, 7-7 and 7-8 focus on two-dimensional shapes, 5.G.3 and 5.G.4. The focus portions of these lessons are exclusively on these supporting standards, and no connections to any other standards, including major work, is made in the lessons. Although some lesson activities do include both major and supporting standards, there are missed connections between the listed standards. For example, in Lesson 7-6, the Math Masters worksheet, "The Quadrilateral Hierarchy," is aligned to 5.G.3, 5.NF.7 and 5.NF.7.A. Although both major and supporting work are addressed, the major work is the focus of the last four problems of the worksheet disconnected from the supporting work.
- Lessons 7-10, 7-11 and 7-12 focus on patterns, 5.OA.3. Although patterns are connected to plotting points on a coordinate grid, plotting points is not major work of the grade. Although some lesson activities do include both major and supporting standards, there are missed connections between the listed standards. For example, in Lesson 7-12, the Math Masters worksheet, "Interpreting Tables and Graphs," is aligned to 5.OA.3, 5.G.1, 5.G.2 and 5.NBT.7. Although both major and supporting work are

addressed, the major work is the focus of the last two problems of the worksheet disconnected from the supporting work.

EARNED 1 of 2 POINTS

Indicator 1d

The amount of content designated for one grade level is viable for one school year in order to foster coherence between grades.

The instructional materials reviewed for Grade 5 meet the expectations for the amount of content designated for one grade level being viable for one school year in order to foster coherence between grades. The suggested pacing includes 113 days of lessons (105 lessons total) and another 16 days allowed for assessment, making 129 days of materials. According to the Teacher Guide, page xxxvi, each lesson is expected to last between 60-75 minutes. The online curriculum states to use Fridays as a Flex Day for games and intervention work. With Fridays being included as Flex Days, this curriculum allows for approximately 32.5 weeks of instruction.

EARNED 2 of 2 POINTS

Indicator 1e

Materials are consistent with the progressions in the Standards i. Materials develop according to the grade-by-grade progressions in the Standards. If there is content from prior or future grades, that content is clearly identified and related to grade-level work ii. Materials give all students extensive work with grade-level problems iii. Materials relate grade level concepts explicitly to prior knowledge from earlier grades.

The instructional materials reviewed for Grade 5 do not meet the expectation for being consistent with the progressions in the standards. Content from prior grades is not clearly identified or connected to grade-level work, and students are not given extensive work with grade-level problems.

Material related to prior, grade-level content is not clearly identified or related to grade-level work. The Grade 5 materials have two instances where prior, grade-level content is present and not identified as such. The lessons are taught as if this is the first introduction to the content. Lessons 2-13 and 3-3 focus on 4.OA.A.3, interpreting remainders in problems.

The content does not always meet the full depth of standards. This mainly occurs because of a lack of lessons addressing the full depth. For example, there are four lessons listed for 5.MD.B.2; however, only one lesson actually aligns to the full depth of the standard. Lesson 8-6 has students creating line plots using $\frac{1}{8}$, $\frac{1}{4}$, and $\frac{1}{2}$. The other three lessons only have students creating line plots using $\frac{1}{2}$, a Grade 3 standard. Another example is 5.OA.A.1, using parentheses and brackets in equations and expressions. While there are 50 exposures to this standard according to the online tracker, only four of the exposures are Focus lessons. None of those four lessons teaches students how to use parentheses or brackets; they just expect students to be able to use them. When looking at 5.NBT.B.7, using the four operations with decimals, the online tracker shows 132 exposures; however, only 14 lessons are cited as focus lessons. There are only two lessons for division, three for multiplication, three sharing multiplication, one for addition, one for subtraction and two sharing addition and subtraction. The other two lessons are not aligned to the standard. When looking at 5.NBT.6, finding whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, there are 110 exposures according to the spiral tracker; however, there are only 13 lessons. Of those, only one lesson has students using four-digit dividends with two-digit divisors. (Nine of the 13 lessons are misaligned.)

Everyday Mathematics Grade 5 materials do not provide extensive work with grade-level standards. For example, the instructional materials do not provide extensive work with the following standards:

- 5.NBT.A.1: There are only five lessons align to this standard.

- 5.NF.A.1: Only three lessons align to this standard, two for addition and one for subtraction.
- 5.NF.B.3: There are only six lessons aligned to this standard.

In lessons where prior knowledge is needed, it is not stated that prior knowledge is being used. When future, grade-level concepts are introduced, there is no mention that the concept will be used in future grades. If the teacher uses the spiral trace at the beginning of the lesson or unit, the teacher will know where prior knowledge is used based on the spiral trace. They also tell when the student will use the skill/concept again in the future of that unit. The spiral trace is not extensive and does not show where the students' learning is really headed. It is listed by lessons and not connecting standards. It does a little better job at the beginning of each unit explaining the spiral trace and what will occur by the end of the unit, but not any further and not connecting to the next standard.

EARNED **0 of 2** POINTS

Indicator 1f

Materials foster coherence through connections at a single grade, where appropriate and required by the Standards i. Materials include learning objectives that are visibly shaped by CCSSM cluster headings. ii. Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important.

The instructional materials reviewed for Grade 5 partially meet the expectations for fostering coherence through connections at a single grade, where appropriate and when the standards require. Overall, materials include learning objectives that are visibly shaped by CCSSM cluster headings, but there are missed opportunities to provide problems and activities that connect two or more clusters in a domain or two or more domains when these connections are natural and important.

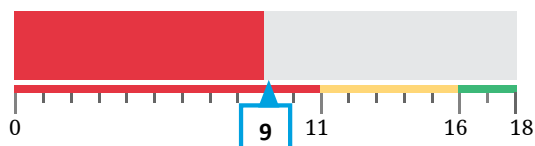
Instructional materials shaped by cluster headings include the following examples:

- Lesson 2-2, "Exponents and Powers of 10," is shaped by 5.NBT.A.
- Lesson 3-12, "Solving Fraction Number Stories," is shaped by 5.NF.A.
- Lessons 4-8 and 4-9, "Solving Problems on a Coordinate Grid," are shaped by 5.G.A.
- Lesson 6-11, "Division of Decimals by Whole Numbers," is shaped by 5.NBT.B.

While the materials have many instances where two or more domains are connected, often the connections are only surface-level connections. For example, lesson 6-4 shows connections between 5.MD.1 5.MD.2, 5.NF.2 and 5.NF.1 However, the lesson is divided into parts, and the parts only truly address one standard at a time.

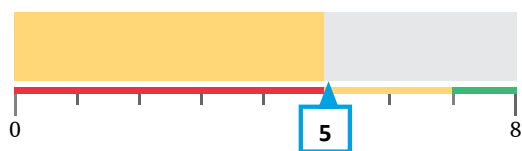
EARNED **1 of 2** POINTS

GATEWAY 2: RIGOR AND MATHEMATICAL PRACTICES DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 5 do not meet the expectations for rigor and MPs. The instructional materials do not meet the expectations for the indicators on rigor and balance, nor do they meet the expectations of the indicators on practice-content connections. Overall, the instructional materials are stronger in regards to procedural skill and fluency and identifying MPs, although improvements are still needed to for those to fully meet the standards as well.

RIGOR AND BALANCE PARTIALLY MEETS EXPECTATIONS



The instructional materials reviewed for Grade 5 do not meet the expectations for rigor and MPs. The instructional materials do not meet the expectations for the indicators on rigor and balance, nor do they meet the expectations of the indicators on practice-content connections. Overall, the instructional materials are stronger in regards to procedural skill and fluency and identifying MPs, although improvements are still needed to for those to fully meet the standards as well.

5/8

CRITERION (2A-2D)

Rigor and Balance: Each grade's instructional materials reflect the balances in the Standards and help students meet the Standards' rigorous expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application.

The instructional materials reviewed for Grade 5 do not meet expectations for rigor and balance. The instructional materials do not give appropriate attention to conceptual understanding or application. The materials do a better job of giving attention to procedural skill and fluency. Overall, because of not fully meeting expectations for procedural skill and fluency, application, and conceptual understanding, the instructional materials do not reflect the balances in the CCSSM.

Indicator 2a

Attention to conceptual understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings.

Materials partially meet the expectation for developing conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings. Frequently, opportunities are missed. Opportunities for students to work with standards that specifically call for conceptual understanding occur by use of pictures, manipulatives, and strategies, but frequently, these fall short by not providing higher-order, thinking questions to truly determine students' understandings.

Cluster 5.MD.C calls for conceptual understanding of volume and how volume relates to multiplication and addition.

- There are 14 focus lessons on fractions. Many of the lessons are directed and explicit, so students do not have many opportunities to struggle with the understanding of the mathematics. There is only one Open Response lesson on volume in the year. There are some missed opportunities to connect conceptual understanding of measurement of volume to other areas.

Cluster 5.NF.B focuses on applying and extending previous understanding of multiplication and division to multiply and divide fractions.

- Lessons 3.10-3.12 provide several opportunities to develop understanding, including use of manipulatives. "Fraction Capture" provides opportunity for students to create different combination of fractions to sum to a given fraction. Overall, however, the student work in these lessons prompts and promotes students to work with mathematics in a procedural manner.
- The Professional Development box on Teacher Edition page 446 discusses development of understanding in Lessons 5.1-5.4. These lessons provide students ample time and opportunity to work with a variety of solving problems with fractions using several strategies. Although many strategies are addressed in a procedural way, the amount of time spent on these strategies may provide an excellent foundation for developing understanding.

Clusters 5.NBT.A and 5.NBT.B focus on understanding the place value system and performing operations with multi-digit whole numbers and decimals to hundredths.

- In Lessons 4.1-4.5 students are frequently told how to think, sort, and label during problems, thus detracting from developing an understanding. The Teacher Questions for the "Fraction of" game in Lesson 4.2 allow students the opportunity to make mathematical sense of diagrams/manipulatives which could lead to understanding, and students are given time to express their thinking.
- In Lessons 6.1-6.3, the Math Journal provides problems to probe student understanding; however, problems simply address student "why?" without providing a task that challenges their thinking. Repetition of mathematical problems detracts from developing conceptual understanding.

Some attention to Conceptual Understanding is found in the Professional Development boxes throughout the Teacher Edition.

- On page 23 of the Teacher Edition, the Professional Development box explains that, in Grade 5, students should find the area of rectangles with fractional side lengths using tiling and applying the formula for area. The box emphasizes that students are not expected to use the area formula until later in the year.
- On page 414 of the Teacher Edition, the Professional Development box explains that the purpose of the lesson is to expose the class to several different decimal subtraction algorithms. The box emphasizes that the "most reliable or efficient algorithm may vary from student to student" and that students do not need to master every algorithm.

EARNED 1 of 2 POINTS

Indicator 2b

Attention to Procedural Skill and Fluency: Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency.

The instructional materials reviewed for Grade 5 meet the expectation for giving attention throughout the year to individual standards that set an expectation of procedural skill and fluency. The instructional materials include activities to build fluency multiplying multi-digit whole numbers using the standard algorithm, 5.NBT.5.

- The online spiral tracker shows 5.NBT.B.5 has 104 exposures within the curriculum. There are 13 Focus lessons that explicitly teach students the traditional algorithm for multiplying multi-digit problems. There are several exposures to the standard algorithm each day.
- Students complete some mental problems, play a game, complete Math Boxes and are assigned a homework page. Frequently, this standard is covered in the Math Boxes problems, games, and homework problems.
- Lesson 2.4 introduces the standard algorithm and shows several examples of how it connects to other strategies (including area models). Students continue their work with the standard algorithm through Lesson 2.9. Students do not multiply with 2 multi-digit numbers until Lesson 2.7.
- Students may need more time and practice to develop fluency. Students do get additional time with multi-digit multiplication using the standard algorithm in Unit 8. Math Boxes are used during each lesson. These problems, typically 5-6 problems, do not connect to each other but are pulled from several different clusters and/or domains and are designed for student practice and maintenance of previous skills.
- Most lessons in the materials have a "Mental Math and Fluency" section which allows students to practice fluencies required in fifth grade. However, often lessons develop a specific procedure and reinforce that procedure. The teacher often guides students thinking with direct instruction and procedural-guided questioning.

EARNED 2 of 2 POINTS

Indicator 2c

Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications of the mathematics, without losing focus on the major work of each grade

The materials partially meet the expectation for being designed so that teachers and students spend sufficient time working with engaging applications of the mathematics, without losing focus on the major work of each grade.

Most problems are presented in the same way throughout the entire curriculum. There is little variety of problems or types of problems. Problems are presented as short, one-correct-answer problems. Some of the problems are tied together through concepts and ideas, but many times, lessons are completely disjointed from one another. Each unit contains a two-day "Open Response" lesson which engages students in application of mathematics. For example, lesson 6-5 has students engaging in application of the mathematics where students are asked to figure out how much breakfast casserole is shared with a class of Grade 5. Online, in the resource section, some "Projects" are available; however, several of the "Projects" have students doing activities which do not align to standards, such as Mayan math, Ancient Civilizations math, and Magic Computation Tricks.

Standard 5.NF.6 has 59 exposures within the curriculum and is listed as the focus of 13 days of Focus lessons.

- The Focus portions of Lessons 3-13, 3-14, 5-5, 5-6, 5-7, 5-9, 5-10, 5-12, 7-1, 7-2, 7-3, 8-1 and 8-3 are aligned to 5.NF.6.
- Standard 5.NF.6 is focused on solving real-world problems involving multiplication of fractions and mixed numbers. However, there is not enough instruction or practice of application of solving real-world problems involving multiplication of fractions and mixed numbers.
- On the Lesson 3-13 Math Journal worksheet "Fraction-Of Problems," students are solving routine one-step word problems. This worksheet is aligned to 5.NF.6, but students are not multiplying fractions and mixed numbers.
- On the Lesson 7-1 Math Journal worksheet "Multiplying Mixed Numbers," students are given one-step routine word problems to solve and one multiplication problem to use to write a word problem. These word problems do not require true application of the standard given that the title tells students what to do with the only two numbers in each of the word problems.
- Lesson 7-3 provides scaffolded application problems involving area and multiplication of mixed numbers by integers, not mixed numbers and fractions.
- Lesson 8-1 has a practice sheet with an alignment to 5.NF.B.6, but none of the word problems on the page require multiplying a fraction and a mixed number.
- On the Lesson 8-3 Math Journal worksheet "Buying a Fish Tank," students are given a multi-step word problem. However, the problem is scaffolded, and students are not provided an opportunity to multiply a fraction and a mixed number.

Standard 5.NF.7.C has 30 exposures within the curriculum and is listed as the focus of three days of Focus lessons.

- The Focus portions of Lessons 5-13, 5-14, and 7-4 are aligned to 5.NF.7.C.
- On the Lesson 5-13 Math Journal worksheet "Solving Fraction Division Problems," students are given one-step word problems requiring division of a fraction by a non-zero whole number. In this lesson, the word problems are very similar, and the directions and problems are so scaffolded that true application of the standard is not achieved.
- In Lesson 5-14, students continue to work the same types of one-step word problems that they encountered in Lesson 5-13. Additionally, students are asked to write one-step word problems to match division problems. Students are not provided with multi-step problems that truly require application of the standard.

- In Lesson 7-4, students again solve one-step word problems and write one-step word problems to match division problems. Students are not provided with any multi-step problems.
- Student work with this standard focuses on routine problems. Even when students are writing their own word problems, the provided sample answers are typically one-step routine problems. For example, the "Multiplying and Dividing Fractions" Math Journal in Lesson 7-10 gives a one-step sample word problem involving drinks. Both of the sample answers for the "Fraction Division Problems" Math Journal in Lesson 7-4 are about meatloaf.

EARNED **1 of 2** POINTS

Indicator 2d

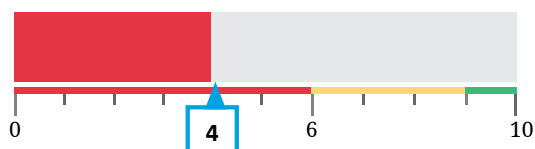
Balance: The three aspects of rigor are not always treated together and are not always treated separately. There is a balance of the 3 aspects of rigor within the grade.

The Grade 5 Everyday Mathematics instructional materials partially meet the expectations for balance. Overall, the three aspects of rigor are neither always treated together nor always treated separately within the materials. The instructional materials meet expectations for procedural skill and fluency; however, the lack of lessons on conceptual understanding and application do not allow for a balance of the three aspects.

Despite efforts to include conceptual understanding and application, problems are all too often presented in a formulaic way. Questions give away the answers or prompt specific thought patterns. The order of questions often lead students to a specific procedure. Contexts are frequently routine, and problems are posed in a way in which students can solve them by relying on the procedural skill. All aspects of rigor are almost always treated separately within the curriculum including within and during lessons and practice.

EARNED **1 of 2** POINTS

MATHEMATICAL PRACTICE-CONTENT CONNECTIONS DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 5 do not meet the expectations for practice-content connections. The materials only partially meet the expectations for attending to all the indicators 2e-2g, except for 2f which does not meet expectations. Overall, in order to meet the expectations for meaningfully connecting the content standards and the MPs, the instructional materials should carefully pay attention to the full meaning of every practice standard, especially MP 3 in regards to students critiquing the reasoning of other students and the use of correct vocabulary throughout the materials.

4/10

CRITERION (2E-2G)

Practice-Content Connections: Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice

Indicator 2e

The Standards for Mathematical Practice are identified and used to enrich mathematics content within and throughout each applicable grade.

The instructional materials reviewed for Grade 5 partially meet the expectations for identifying the MPs and using them to enrich the mathematics content.

The MPs are identified in the grade 5 materials for each unit and the focus part of each lesson.

- For Unit 3, page 217 discusses how MP5 and MP8 unfold within the unit and lessons.
- For Unit 5, page 433 identifies which MPs are in the focus parts of the lessons within the unit.
- For Unit 6, page 553 discusses how MP6 and MP7 unfold within the unit and lesson.
- For Unit 7, page 657 explains the development of MP2 and MP8 in this unit.
- Within the lessons are spots where the MPs are identified.

However, within the lessons, no teacher guidance on how to help students with the MPs is given. Because there is no guidance on implementation, it is difficult to determine how meaningful connections are made. Additionally, it is difficult to determine if the MPs have meaningful connections, since the materials break them into small parts and never address the MPs as a whole. The broken apart MPs can be seen on pages EM8-EM11.

EARNED **1 of 2** POINTS

Indicator 2f

Materials carefully attend to the full meaning of each practice standard

The Grade 5 Everyday Mathematics instructional materials do not meet the expectation for carefully attending to the full meaning of each practice standard. The lessons do not give teachers guidance on how to implement the standards. Some lessons are attached to standards without having students actually attending to them.

Below are examples of where the full intent of the MPs is not met.

- MP1: Lesson 1-2, citing MP1, asks students which facts they know and which ones they still need to learn; this is not having them making sense of problems or preserving in solving them. Lesson 1-8 has the teacher explaining when mathematicians have a new problem to solve. They think about how they have solved similar problems in the past; this is not having students engage in MP1. Lesson 2-8 cites MP1 when having the teacher demonstrate how to solve a problem; this is not the students making sense of problems or preserving in them.
- MP4: Lesson 1-11 has the teacher creating a mathematical model, but not the students. The assessment for unit one, problem 3, is cited with MP4; simply solving equations is not having student creating a mathematical model. Lesson 2-2 is cited with MP4, but students are told what model to use.
- MP5: In Lesson 1-6, MP5 is cited. However, students are not choosing a tool to use; they are just being asked a question about a tool. Lesson 2-6 cites MP5; however, students are told which tool to use.
- MP6: In Lesson 1-7, MP6 is cited, but reminding students of the importance of packing without gaps or overlaps is not the student attending to precision. Lesson 2-3 cites MP6; the teacher telling the students to always think about if their answer makes sense is not the students attending to precision.
- MP7: In Lesson 2-1, MP7 is cited; the teacher explaining that a pattern is a mathematical structure and helps in problem solving is not having students look for and make use of structure. Lesson 2-5 cites MP7; the question asks "Do you notice any patterns in the steps of U.S. traditional multiplication?" This tells the students there is a pattern or structure to see taking away the intent of students looking for the structure and making use of it. A better question would simply be to ask "what do you notice?"

EARNED **0 of 2** POINTS

Indicator 2g.i

Materials prompt students to construct viable arguments and analyze the arguments of others concerning key grade-level mathematics detailed in the content standards.

The materials partially meet the expectation for prompting students to construct viable arguments and analyze the evidence of others. MP3 is not explicitly called out in the student material. Although the materials at times prompt students to construct viable arguments, the materials miss opportunities for students to analyze the arguments of others, and the materials rarely have students do both together.

There are some questions that do ask students to explain their thinking on assessments and in the materials. Sometimes there are questions asking them to look at other's work and tell whether the student is correct or incorrect and explain. Little direction is provided to make sure students are showing their critical thinking, process or procedure, or explaining their results. Many questions that prompt students to critique the reasoning of others tell the student if the reasoning was originally correct and incorrect. It should be noted though that student materials never explicitly call out entire MPs at once; MP 3 is broken into GMP 3.1 and GMP 3.2 in the materials.

The open-response lessons could be opportunities for students to construct arguments for or against a mathematical question. However, besides just working in groups, there is little prompting from the teacher for students to discuss the answers of other groups or students.

The following are some examples of where the materials indicate that students are being asked to engage in MP3:

- In Lesson 1-3, the teacher's guide provides the following student question: "Why is it important to make sense of others' mathematical thinking?" This question does not require students to analyze the evidence of others as indicated in the materials.
- In Lesson 2-9, on Math Journal page 59, problem 5 asks students which method they used to multiply and why?
- In Lesson 3-9, problem 5 on the Math Journal "Addition and Subtraction Number Stories" activity asks students to explain how they solved the problem.
- In Lesson 3-9, problem 5 on the Math Journal worksheet asks students to explain Morton's reasoning.
- In Lesson 3-14, teachers are told to "Look for partnerships using a successful strategy and have them share their strategies and representation." Although the selected students will explain their thinking, the other students will not. Also, students will not be analyzing the evidence of others.
- In Lesson 3-14, on page 307 of the teacher's guide, teachers are told "(a)fter each strategy is shared, encourage other students to explain it in their own words." Although students may critique the reasoning as they are providing explanation, they are not prompted to do so by the materials.
- In Lesson 5-14, on page 531 of the teacher's guide, teachers are told to "(h)ave students restate others' ideas in their own words to make sure that they understand why the quotients is larger than the dividend." Although students may critique the reasoning as they are providing restated idea, they are not prompted to by the materials.
- In the Math Message Follow-Up for Lesson 8-11, students are simply sharing their answers and explaining how they used the graph to make their predictions.

EARNED **1 of 2** POINTS

Indicator 2g.ii

Materials assist teachers in engaging students in constructing viable arguments and analyzing the arguments of others concerning key grade-level mathematics detailed in the content standards.

The materials partially meet the expectation for assisting teachers in engaging students in constructing viable arguments and analyzing the arguments of others concerning key grade level mathematics detailed in the content standards. The Grade 5 materials sometimes give teachers questions to ask students to have them form arguments or analyze the arguments of others, but typically, the materials do not give both at the same time.

In the teacher's guide and lessons, the teachers have very specific, almost scripted, directions for students. Most, if not all, of the Math Master worksheets are presented in a step-by-step directive that does not allow for students to evaluate, justify, or explain their thinking. Usually, only one right answer is available to the posed problem, and there is not a lot of teacher guidance on how to lead the discussion given besides a question to ask. There are many missed opportunities to guide students in analyzing the arguments of others. Students spend time explaining their thinking but not always justifying their reasoning and creating an argument.

The following are examples of lessons aligned to MP3 that have missed opportunities to assist teachers in engaging students in constructing viable arguments and analyzing the arguments of others:

- In the Math Message Follow-Up for Lesson 1-6, students are asked to share ideas that they discussed with partners. Teachers are told to encourage them to "explain their own thinking clearly and to ask questions to be sure that they understand each other's thinking;" however, the questions are not provided for the teacher.
- In the Math Message Follow-Up for Lesson 3-6, students are sharing how they solved the math message. Teachers are told to "(b)e sure the discussion covers the following two strategies;" however, the materials do not offer assistance to teachers to ensure that the two strategies are incorporated into the discussion.
- Lesson 3-11 has students discussing their models and solutions to fair share problems; however, there is no guidance to the teacher on how to prompt rich mathematical discourse.
- In the Math Message Follow-Up for Lesson 6-8, teachers are told to ask students to share their conjectures and arguments. The teacher guidance states that teachers should "(e)xpect most to argue that 2.4×1.8 is greater than 2.4 because 1.8 is greater than 1." However, the teacher guidance does not offer any suggestions on how to guide the conversation if most students do not provide that conjecture.
- In the Math Message Follow-Up for Lesson 8-3, teachers are told to have students share their conjectures, but teachers are not given guidance to help students form the conjectures.

EARNED **1 of 2** POINTS

Indicator 2g.iii

Materials explicitly attend to the specialized language of mathematics.

The instructional materials reviewed for Grade 5 partially meet the expectations for explicitly attending to the specialized language of mathematics. Overall, the materials for both students and teachers have multiple ways for students to engage with the vocabulary of Mathematics; however, often the correct vocabulary is not used.

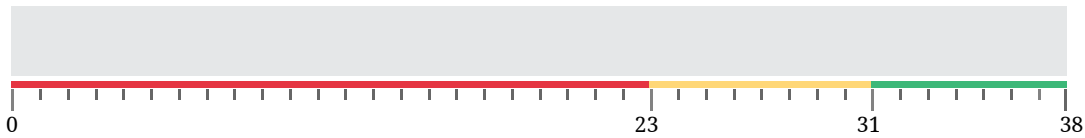
- Each unit includes a list of important vocabulary in the unit organizer which can be found at the beginning of each unit.
- Vocabulary terms are bolded in the teacher guide as they are introduced and defined but are not bolded or stressed again in discussions where students might use the term in discussions or writing.
- Each regular lesson includes an online tool, "Differentiating Lesson Activities." This tool includes a component, "Meeting Language Demands," that includes vocabulary, general and specialized, as well as strategies for supporting beginning, intermediate, and advanced ELLs. An example of this, from Lesson 2-5, includes "For beginnings ELLs, use visual aids and role play to scaffold comprehension of

explanations."

- Everyday Math comes with a Reference book that uses words, graphics, and symbols to support students in developing language.
- Correct vocabulary is often not used. For example, "Turn-around fact" is used rather than the term commutative property, number sentence is used instead of equation, "name-collection box" instead of equivalent equations or equivalent expressions, "number model" instead of expression, trade-first subtraction, and "top-heavy fraction" instead of fraction.
- Some units have a heavy load of required mathematical vocabulary. In Unit 7, there are 39 vocabulary words needed for students in Grade 5 to understand the unit. Some of these words include corresponding terms, fathom, hierarchy, great span, joint, relationship, subcategory and others. In contrast, unit 6 only has 14 vocabulary words for the unit which is a much more manageable number for students in Grade 5.

EARNED **1 of 2** POINTS

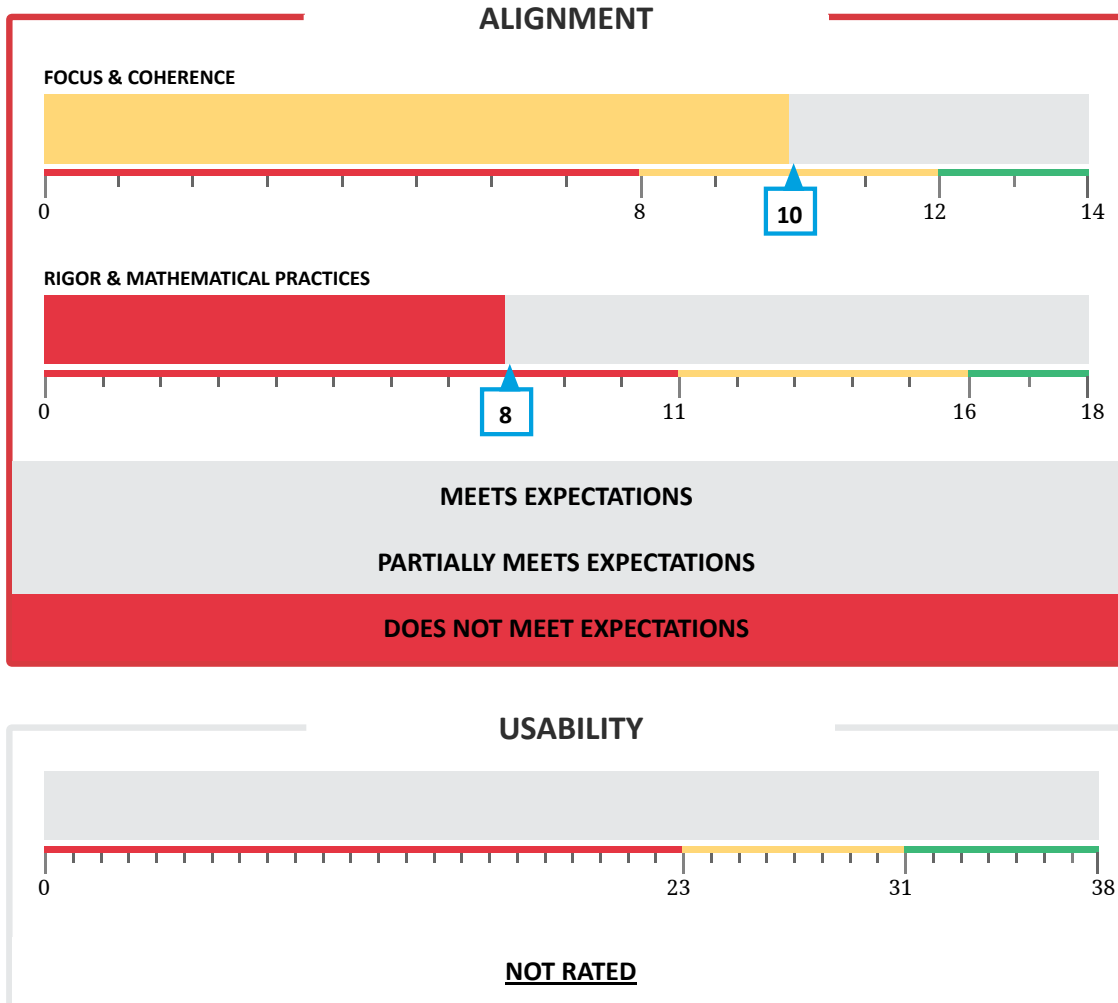
GATEWAY 3: USABILITY DID NOT REVIEW



This material was not reviewed for Gateway Three because it did not meet expectations for Gateways One and Two

GRADE 6 EVERYDAY MATH GRADE 6

PUBLISHER: MCGRAW-HILL EDUCATION SUBJECT: MATH



ALIGNMENT

EVERYDAY MATH GRADE 6 GRADE 6 DOES NOT MEET EXPECTATIONS FOR ALIGNMENT

The instructional materials reviewed for Grade 6 do not meet the expectations for alignment to the CCSSM. The instructional materials partially meet the expectations for Gateway 1 as they appropriately focus on the major work of the grade but did not always demonstrate coherence within the grade and across other grades. The instructional materials do not meet the expectations for Gateway 2 as they do not appropriately address rigor within the grade-level standards, and there are missed opportunities in the materials when it comes to attending to the full meaning of the MPs.

GATEWAY 1: FOCUS & COHERENCE PARTIALLY MEETS EXPECTATIONS



The instructional materials reviewed for Grade 6 *Everyday Mathematics* partially meet the expectations for Gateway 1. Future grade level standards are not assessed, and the materials devote a majority of the time to the major work of the grade. At times the instructional materials connect supporting work with the major work of the grade, but often the materials do not. Although the materials provide a full program of student that is viable for a school year, students are not given extensive work with grade-level problems. Connections between grade levels and domains are missing. Overall, the instructional materials meet the expectations for focusing on the major work of the grade, but the materials are not always consistent and coherent with the standards.

FOCUS MEETS EXPECTATIONS



The Grade 6 *Everyday Mathematics* do meet the expectations for focus. Future grade level standards are not assessed, and the materials devote a majority of the time to the major work of the grade. Overall, the materials meet the expectations for focus.

2/2

CRITERION (1A)

Materials do not **assess** topics **before** the grade level in which the topic should be introduced.

The Grade 6 *Everyday Mathematics* materials meet the expectations for not assessing topics before the grade level in which they should be introduced. All items on Unit assessments are focused on Grade 6 standards.

Indicator 1a

The instructional material **assesses** the grade-level content **and, if applicable**, content from earlier grades. Content from future grades may be introduced but students should not be held accountable on assessments for future expectations.

The instructional materials reviewed for Grade 6 meet the expectations for focus within assessment. Overall, the instructional material does not assess content from future grades within the summative assessment sections of each unit.

The program allows for a Beginning-of-Year, Mid-year, End-of-Year Assessment, and Unit Assessments which assess the Grade 6 standards. There are also eight unit assessments/progress checks. The unit assessments/progress checks have portions for Self Assessment, Unit Assessment, Open Response Assessment (odd numbered units), Cumulative Assessment (even numbered units), and a Challenge. These assessments can be found in the Assessment Handbook. The Individual Profile of Progress for tracking and class progress are present in both paper (pages 110-121 in the Assessment Handbook) and digital formats. Most lessons have an Assessment Check-in that can be used as either formative or summative assessment as stated in the implementation guide.

Assessment Check-Ins are part of most lessons and mostly assess grade level content. For example, in the teacher guide, page 168, lesson 2-8, the Assessment Check-In focuses on 6.NS.1, dividing fractions.

All unit assessment items are on Grade 6 level. There are no scoring rubrics provided for the educators; however, all assessments do provide answer keys. Assessments 1-3 include problems involving mode, which is not specifically required by 6.SP.5.C.

EARNED **2 of 2** POINTS

4/4

CRITERION (1B)

Students and teachers using the materials as designed devote the large majority[1] of class time in each grade K-8 to the major work of the grade.

The Grade 6 Everyday Mathematics materials do meet expectations for devoting the large majority of class time to the major work of the grade level. The Sixth Grade Everyday Mathematics engages students in the major work of the grade about 73 percent of the time.

Indicator 1b

Instructional material spends the majority of class time on the major cluster of each grade.

The instructional materials reviewed for Grade 6 meet the expectations for focus by spending the majority of the time on the major clusters of the grade. This includes all the clusters in 6.RP and 6.EE and clusters 6.NS.A and 6.NS.C.

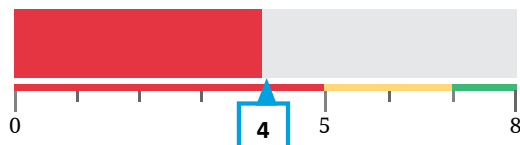
The Grade 6 materials do spend the majority of class time on the major clusters of the grade. Work was not calculated by units since the units spiral and are not clustered by groups of standards. There are eight units with approximately 11-14 lessons per unit. Assessment days were not included in these calculations.

Additionally, each unit has a 2-day open response lesson; the Open Response Lessons were counted as one lesson. At the lesson level, the lessons are divided into Warm Up, Focus, and Practice. Each day consists of approximately 5 minutes on Warm Up, 30-45 minutes of a Focus, and 15-25 minutes of practice. To determine the amount of time on major work, the standards covered in the focus lessons were considered since that is where direct instruction takes place and the majority of the lesson takes place during this time.

- Approximately seventy-three lessons out of the 99 are focused on the major work. This represents approximately 73 percent of the lessons.
- In Unit 1, five out of fourteen lessons focus on major work.
- In Unit 3, four out of fourteen lessons focus on major work.
- In Unit 5, five out of twelve lessons focus on major work.
- All other units are focused on major work of the grade.

EARNED **4 of 4** POINTS

COHERENCE DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 6 *Everyday Mathematics* partially meet the expectations for Gateway 1. Future grade level standards are not assessed, and the materials devote a majority of the time to the major work of the grade. At times the instructional materials connect supporting work with the major work of the grade, but often the materials do not. Although the materials provide a full program of student that is viable for a school year, students are not given extensive work with grade-level problems. Connections between grade levels and domains are missing. Overall, the instructional materials meet the expectations for focusing on the major work of the grade, but the materials are not always consistent and coherent with the standards.

4/8

CRITERION (1C-1F)

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

The instructional materials reviewed for Grade 6 do not meet the expectations for coherence. At times the instructional materials use supporting content as a way to continue working with the major work of the grade, but often the materials do not. For example, connections between statistics and probability and major work of the grade are missed. The materials include a full program of study that is viable content for a school year, including approximately 30-31 weeks of lessons and assessment. All students are not given extensive work on grade-level problems. Prior grade-level content is not consistently identified, and materials do not explicitly connect grade

level concepts to prior knowledge from earlier grades. These instructional materials are shaped by the cluster headings in the standards; however, only surface level connections are made between domains. Overall, the Grade 6 materials do not support coherence and are not consistent with the progressions in the standards.

Indicator 1c

Supporting content enhances focus and coherence simultaneously by engaging students in the major work of the grade.

The instructional materials reviewed for Grade 6 partially meet expectations that supporting content enhances focus and coherence by engaging students in the major work of the grade. In some cases, the supporting work enhances and supports the major work of the grade level, and in others, it does not.

Units 6-8 are focused entirely on major work, so no specific opportunities to use supporting content to enhance focus and coherence by engaging students in the major work of the grade are found.

At times supporting content does enhance focus and coherence by engaging students in the major work of the grade. Examples of the connections between supporting work and major work include the following:

- Lesson 4-1 connects supporting standard 6.NS.4 with 6.EE.1 and 6.EE.6, both major work of the grade.
- Lesson 5-1 connects supporting standard 6.G.3 and 6.NS.6, 6.NS.6.B, 6.NS.6.C, and 6.NS.8, major work of the grade.
- Lesson 5-4 connects supporting standards 6.NS.3 and 6.G.1 with 6.EE.2 and 6.EE.2.C, major work of the grade.

Supporting work is found in Units 1-5. At times standards listed at the beginning of each unit are logically connected to each other; however, when the specific work of the unit and lessons is examined, some connections are missed or not specifically noted for teacher or students. Also, many lessons address supporting work in isolation from major work of the grade. Examples of lessons without connections between supporting and major work include the following:

- Many of the lessons in Unit 1 focus on statistics and probability. These lessons are not truly connected to major work of the grade. Although some lesson activities do include both major and supporting standards, there are missed connections between the listed standards. For example, in Lesson 1-7 the Math Masters worksheet “Exploring Bar Graphs and Histograms” is aligned to 6.EE.5, 6.SP.4, 6.SP.5, and 6.SP.5.B. Although both major and supporting work are addressed, the major work is the focus of the last three problems of the worksheet disconnected from the supporting work.
- Lesson 3-6 is focused on long division with decimals. The Math Masters worksheet “Decimal Division” is aligned to 6.NS.3, 6.NS.4, and 6.EE.7. Although the worksheet claims to connect the supporting work to major work of writing and solving equations of the form $x+p=q$ or $px=q$, the worksheet does not require students to write and solve equations of this type. The provided sample answers do not show equations of this type.
- Lessons 3-12, 3-13, and 3-14 focus on box plots and data representations. These lessons are not truly connected to major work of the grade. Although some lesson activities do include both major and supporting standards, there are missed connections between the listed standards. For example, in lesson 3-12 the Math Masters worksheet “Box Plots” is aligned to 6.RP.3, 6.RP.3.C, 6.SP.5, and 6.SP.5.C. Although both major and supporting work are addressed, the major work is the focus of the last three problems of the worksheet disconnected from the supporting work.

EARNED 1 of 2 POINTS

Indicator 1d

The amount of content designated for one grade level is viable for one school year in order to foster coherence between grades.

The instructional materials reviewed for Grade 6 meet the expectations for the amount of content designated for one grade level being viable for one school year in order to foster coherence between grades. The suggested pacing includes 107 days of lessons (99 lessons total) and another 16 days allowed for assessment, making 123 days of materials. According to the Teacher Guide on page xxxvi, each lesson is expected to last between 60-75 minutes. The online curriculum states to use Fridays as a Flex Day for games and intervention work. With Fridays being included as Flex Days, this curriculum allows for approximately 30 to 31 weeks of instruction.

EARNED 2 of 2 POINTS

Indicator 1e

Materials are consistent with the progressions in the Standards i. Materials develop according to the grade-by-grade progressions in the Standards. If there is content from prior or future grades, that content is clearly identified and related to grade-level work ii. Materials give all students extensive work with grade-level problems iii. Materials relate grade level concepts explicitly to prior knowledge from earlier grades.

The instructional materials reviewed for Grade 6 are not consistent with the progressions in the standards. Content from prior grades is not clearly identified or connected to grade-level work, and students are not given extensive work with grade-level problems.

Material related to prior grade level content is not clearly identified or related to grade level work. The Grade 6 materials have two instances where prior grade-level content is present and not identified as such. The lessons are taught as if this is the first introduction to the content. Lesson 1-11 focuses on equivalent fractions at the Grade 4 level, 4.NF.A.1. Lesson 1-12 focuses on equivalent fractions at the Grade 5 level, 5.NF.A.1.

The content does not always meet the full depth of standards. This mainly occurs because of a lack of lessons addressing the full depth of standards. For example, there are eight lessons listed for 6.SP.A.2; however, only three lessons actually align to the full depth of the standard, lessons 1-8, 3-12, and 3-13. The other cited lessons only have students finding central measures in a very procedural manner without looking at the overall shape to bring context. There are 27 lessons listed for 6.RP.A.3; however, only eight lessons align to the full depth of the standard. There are nine lessons listed for 6.NS.B.3; however, only six lessons align to the standard.

Everyday Mathematics Grade 6 materials do not provide extensive work with grade level standards. For example, the instructional materials do not provide extensive work with the following standards:

- 6.NS.A.1: Only four lessons align to this standard, one of which is multiplication.
- 6.NS.C.5: Only four lessons align to this standard.
- 6.NS.C.6.B: While there are four lessons aligned to this standard, none of the lessons use reflection across one or both axes.

In lessons where prior knowledge is needed, the instructional materials do not state that prior knowledge is being used. When future grade level concepts are introduced, there is no mention that the concept will be used in future grades. If the teacher uses the spiral trace at the beginning of the lesson or unit, the teacher will know where prior knowledge is used and when the student will use the skill/concept again in the future. The spiral trace is not extensive and does not show where the students learning is really headed. It is listed by lessons and not connecting standards. At the beginning of each unit the spiral trace provides an explanation of what will occur by the end of the unit, but the spiral trace does not explain any further and does not connect to the next standard.

EARNED 0 of 2 POINTS

Indicator 1f

Materials foster coherence through connections at a single grade, where appropriate and required by the Standards i. Materials include learning objectives that are visibly shaped by CCSSM cluster headings. ii. Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important.

The instructional materials reviewed for Grade 6 partially meet the expectations for fostering coherence through connections at a single grade, where appropriate and when the standards require. Overall, materials include learning objectives that are visibly shaped by CCSSM cluster headings, but missed opportunities to provide problems and activities that connect two or more clusters in a domain or two or more domains when these connections are natural and important.

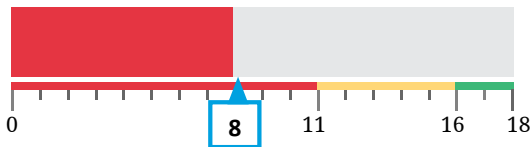
Instructional materials shaped by cluster headings include the following examples:

- Lesson 1-11, "Building a Number Line Using Fraction Strips," is shaped by 6.NS.C.
- Lesson 3-10, "Percents as Ratios," is shaped by 6.RP.A.
- Lesson 5-12, "Area versus Volume," is shaped by 6.G.A.
- The "Solving Problems with Substitution" portion of the Focus of Lesson 6-1 is shaped by 6.EE.B.

While the materials have many instances where two or more domains are connected, often the connections are only surface level connections. For example, Lesson 2-2 shows connections between 6.NS.3, 6.NS.4, 6.SP.1, 6.SP.2, 6.SP.5, 6.SP.5.B and 6.SP.5.C, and 5.NF.1 However, the lesson is divided into parts, and the parts only truly address one standard at a time.

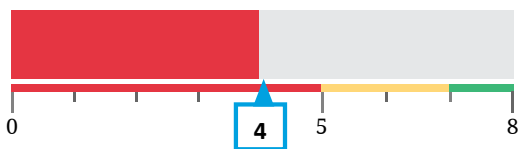
EARNED 1 of 2 POINTS

**GATEWAY 2: RIGOR AND MATHEMATICAL PRACTICES
DOES NOT MEET EXPECTATIONS**



The instructional materials reviewed for Grade 6 do not meet the expectations for rigor and MPs. The instructional materials do not meet the expectations for the indicators on rigor and balance, nor do they meet the expectations of the indicators on practice-content connections. Overall, the instructional materials are stronger in regards to procedural skill and fluency and identifying MPs, although improvements are still needed to for those to fully meet the standards as well.

**RIGOR AND BALANCE
DOES NOT MEET EXPECTATIONS**



The instructional materials reviewed for Grade 6 do not meet the expectations for rigor and MPs. The instructional materials do not meet the expectations for the indicators on rigor and balance, nor do they meet the expectations of the indicators on practice-content connections. Overall, the instructional materials are stronger in regards to procedural skill and fluency and identifying MPs, although improvements are still needed to for those to fully meet the standards as well.

CRITERION (2A-2D)

Rigor and Balance: Each grade's instructional materials reflect the balances in the Standards and help students meet the Standards' rigorous expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application.

The instructional materials reviewed for Grade 6 do not meet expectations for rigor and balance. The instructional materials do not give appropriate attention to conceptual understanding or application. The materials do a better job of giving attention to procedural skill and fluency; however, the full meaning of procedural skill and fluency is still not met. Overall, because of not fully meeting expectations for procedural skill and fluency, application, and conceptual understanding, the instructional materials do not reflect the balances in the CCSSM, which help students meet rigorous expectations by developing conceptual understanding, procedural skill and fluency, and application.

Indicator 2a

Attention to conceptual understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings.

Materials partially meet the expectation for developing conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings. Frequently opportunities are missed. Opportunities for students to work with standards that specifically call for conceptual understanding occur by use of pictures, manipulatives and strategies but frequently fall short by not providing higher order thinking questions to truly determine students' understandings.

Cluster 6.RP.A calls for understanding ratio concepts and using ratio reasoning to solve problems.

- There are 13 Focus lessons on 6.RP.1 and eight focus lessons on 6.RP.2. Many of the lessons are doing "dual duty" as many lessons are marked for both standards. Lessons are so directed and explicit that students do not have the opportunities to struggle with the understanding of the mathematics. There is one Open Response lesson on ratios in the year.

Standard 6.EE.5 focuses on understanding solving an equation or inequality as a process of answering a question.

- In the following lessons, problems that are part of the practice sections are incorrectly aligned to 6.EE.5, which reduces opportunities to develop conceptual understanding: 1.11, 2.11, 2.14, 3.4, 5.6, 6.3, 7.4 (Math Box Problem 1) and 8.4. The misaligned problems in these lessons have students evaluating numerical expressions as opposed to demonstrating an understanding of solving an equation or an inequality as a process of answering a question.

Some attention to Conceptual Understanding is found in the Professional Development boxes throughout the Teacher Edition.

- On page 80 of the Teacher Edition, the Professional Development box explains that fractions can serve as area models or as number line strips and provides an example.
- On page 286 of the Teacher Edition, the Professional Development box explains that working with grids can help "students reason about percents conceptually before they use an algorithm to convert fractions to decimal equivalents and percents."

EARNED 1 of 2 POINTS

Indicator 2b

Attention to Procedural Skill and Fluency: Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency.

The instructional materials reviewed for Grade 6 partially meet the expectation for giving attention throughout the year to individual standards that set an expectation of procedural skill and fluency.

The instructional materials lack activities to build fluency computing with multi-digit numbers, 6.NS.2 and 6.NS.3. Standards 6.NS.2 and 6.NS.3 have a total of 215 exposures in the instructional materials. Exposures could include problems in the Math Boxes, problems in the Math Journal, direct instruction during the Focus lesson, problems during the online or hands-on game, and/or homework problems.

Standard 6.NS.2 has 61 exposures within the curriculum and is listed as the focus of three lessons.

- There is only one focus lesson that explicitly teaches students the standard algorithm for division. Lesson 3.5 is the only lesson where there is focused instruction on the standard algorithm.
- In Lesson 1.3 "Finding Equal Shares with the Mean," 6.NS.2 is not the focus. Standard 6.NS.2 is only included because division is used to find the mean, and the standard algorithm is not specifically addressed.
- In Lesson 1.5 about comparing measures of center, 6.NS.2 is not the focus. Standard 6.NS.2 is only included because division is used to find the mean, and the standard algorithm is not specifically addressed.
- There are 44 exposures for practice aligned to 6.NS.2, but only about half of those opportunities occur after the standard algorithm is discussed in Lesson 3.5.

Standard 6.NS.3 has 154 exposures within the curriculum and is listed as the focus of nine lessons.

- Lesson 3.3 focuses on the standard algorithm for addition and subtraction of multi-digit decimals.
- Lesson 3.4 focuses on the standard algorithm for multiplication of multi-digit decimals.
- Lesson 3.6 focuses on the standard algorithm for division of multi-digit decimals.
- Lesson 3.7 includes an application problem that involves all operations with multi-digit decimals.
- There are 93 exposures for practice aligned to 6.NS.3, but only a few more than half of those opportunities occur after the standard algorithms are discussed in Lessons 3.3, 3.4, 3.6 and 3.7.

Math Boxes are used during each lesson. These problems, typically 5-6 problems, do not connect to each other but are pulled from several different clusters and/or domains and are designed for student practice and maintenance of previous skills. Most lessons in the materials have a "Mental Math and Fluency" section which allows students to practice fluencies required in grade 5. However, often lessons develop a specific procedure and reinforce that procedure. The teacher often guides students thinking with direct instruction and procedural guided questioning.

EARNED 1 of 2 POINTS

Indicator 2c

Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications of the mathematics, without losing focus on the major work of each grade

The materials partially meet the expectation for being designed so that teachers and students spend sufficient time working with engaging applications of the mathematics, without losing focus on the major work of each grade.

Most problems are presented in the same way throughout the entire curriculum. There is little variety of problems or types of problems. Problems are presented as short, one correct answer problems. Some of the problems are tied together through concepts and ideas, but many times lessons are completely disjointed from one another.

Standard 6.NS.1 has 77 exposures within the curriculum and is listed as the focus of four days of Focus lessons.

- The Focus portions of Lessons 2.5, 2.6, 2.7 and 2.8 are aligned to 6.NS.1.
- About half of these exposures, including lessons 2.13, 3.1, 3.3, 3.5, 4.4 and 4.13, only involve computing quotients of fractions free from interpreting or being part of a word problem. The practice listed for lesson 3.4 does not actually align to 6.NS.1 as problem 4 in the Math Boxes only has students writing the reciprocal of a number. The practice listed for lessons 2.14, 3.2 and 3.8 are good examples of properly addressing the interpret and compute aspects of 6.NS.1.
- Only two lessons, 2.6 and 2.7, truly focus on the standard.
- Lessons 2.5 and 2.8 are also listed as focus lessons for this standard. However, in lesson 2.5, there are no quotients of fractions interpreted or computed, and in lesson 2.8, students are actually comparing when the divisor is a whole number to multiplying by the reciprocal of that divisor. The divisors in lesson 2.8 are whole numbers.

Standard 6.EE.9 has 50 exposures in the curriculum and is listed as the focus of 10 days of Focus lessons.

- There are 10 focus lessons, 4.3, 7.3, 7.4, 7.6, 7.8 to 7.11, 8.7 and 8.8, that are listed as aligning to 6.EE.9, but only seven of the lessons actually align to the standard.
- Lesson 4.3 does not have students use any variables, and lessons 7.3 and 7.4 have students write the expression in electronic spreadsheets which detracts from using two variables in one equation.

Standard 6.EE.7 has 58 exposures in the curriculum and is listed as the focus of 11 days of Focus lessons.

- The Focus portions of Lessons 2.6, 3.3, 3.6, 5.9, 6.3, 6.4, 6.5, 6.8, 7.8, 7.9 and 8.6 are aligned to 6.EE.7.
- Many of the exposures/lessons overlap with the previous standard.
- In lessons 2.6, 3.3, 3.6 and 5.9, students do not have the opportunity to write equations with variables and proceed to solve those equations. In these lessons, students write numerical expressions and evaluate those numerical expressions.
- In lessons 6.3, 6.8 and 7.8, almost all of the equations that are written are of the form $px + q = r$, which means the lessons more closely align to 7.EE.4.A instead of 6.EE.7. Also, in lesson 6.8, students do not get to solve some of the equations that are written, and in lesson 7.8, the equations that are written are used to complete tables of data and create graphs, not solving real-world or mathematical problems.
- In lessons 6.4 and 6.5, students compare bar models and pan balances to develop a conceptual understanding of solving an equation, but these lessons do not provide students with opportunities to solve real-world or mathematical problems by writing equations and solving them.
- In lesson 7.9, students are expected to perform computations with quantities from a real-world context, but there is no direct connection to students writing equations to model the context of the problems before solving them.
- In lesson 8.6, students are expected to find the mean of a set of data by thinking about the mean as a balancing point, but, as in lesson 7.9, there is no direct connection to writing equations and using those equations to find the mean.

EARNED 1 of 2 POINTS

Indicator 2d

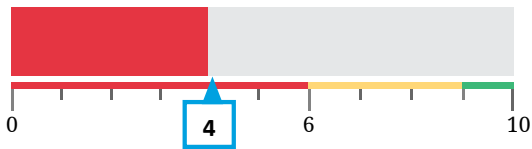
Balance: The three aspects of rigor are not always treated together and are not always treated separately. There is a balance of the 3 aspects of rigor within the grade.

The Grade 6 Everyday Mathematics instructional materials partially meet the expectations for balance. Overall, the three aspects of rigor are treated separately within the materials, and the lack of lessons on conceptual understanding and application do not allow for a balance of the three aspects.

Despite efforts to include conceptual understanding and application, problems are all too often presented in a formulaic way. Questions give away the answers or prompt specific thought patterns. The order of questions often lead students to a specific procedure. Contexts are frequently routine and problems are posed in a way in which students can solve them by relying on the procedural skill. All aspects of rigor are almost always treated separately within the curriculum including within and during lessons and practice.

EARNED **1 of 2** POINTS

MATHEMATICAL PRACTICE-CONTENT CONNECTIONS DOES NOT MEET EXPECTATIONS



The instructional materials reviewed for Grade 6 did not meet the expectations for practice-content connections. The materials only partially meet the expectations for attending to all the indicators 2e- 2g, except for 2f which did not meet expectations. Overall, in order to meet the expectations for meaningfully connecting the Standards for Mathematical Content and the MPs, the instructional materials should carefully pay attention to the full meaning of every practice standard, especially MP3 in regards to students critiquing the reasoning of other students and the use of correct vocabulary throughout the materials.

4/10

CRITERION (2E-2G)

Practice-Content Connections: Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice

Indicator 2e

The Standards for Mathematical Practice are identified and used to enrich mathematics content within and throughout each applicable grade.

The instructional materials reviewed for Grade 6 partially meet the expectations for identifying the MPs and using them to enrich the Mathematics content.

The MPs are identified in the Grade 6 materials for each unit and the focus part of each lesson.

- For Unit 3, page 229 discusses how MP1 and MP2 unfold within the unit and lessons.
- For Unit 5, page 461 identifies which MPs are in the focus parts of the lessons within the unit.
- For Unit 7, page 655 explains the development of MP5 and MP6 in this unit.
- Within the lessons are spots where the MPs are identified.

However, within the lessons no teacher guidance on how to help students with the MPs is given. Because there is no guidance on implementation, it is difficult to determine how meaningful connections are made. Additionally, it is difficult to determine if the MPs have meaningful connections since the materials break them into small parts and never address the MPs as a whole. The broken apart MPs can be seen on pages EM8-EM11.

EARNED **1 of 2** POINTS

Indicator 2f

Materials carefully attend to the full meaning of each practice standard

The Grade 6 Everyday Mathematics instructional materials do not treat each MP in a complete, accurate, and meaningful way. The lessons do not give teachers guidance on how to implement the standards. Some lessons are attached to standards without having students actually attending to them.

Below are examples of where the full intent of the Standards for Mathematical Practice is not met.

- MP1: Lesson 5-9 cites MP1; asking students to simply discuss with a partner how they solved the problem does not ensure they are persevering in problem solving. Lesson 6-1 cites MP1; however, the materials are simply asking students to complete the equation. Lesson 6-7 cites MP1; however, the problem is simply asking students to identify which equations are equivalent.
- MP4: Lesson 2-3 cites MP4; they are using fraction strips and number lines to visualize fraction multiplication. In the math journal on pages 62 and 63, students are using a number line for fraction multiplication when working with real world problems such as eating parts of a granola bar. This illustrates a lack of full intention of MP4 as it highlights the use of a model (noun) instead of modeling (verb). Lesson 5-6 cites MP4; the teacher tells the students how to make a model, so this lesson does not meet the intent of the standard. Lesson 5-7 and 5-10 (MP4) gives students the model that they are supposed to use, thus not allowing them to create a mathematical model to use.
- MP5: Lesson 5-4 cites MP5; telling the students to use the formula as a tool does not give students the opportunity to select an appropriate tool. Lesson 6-5 cites MP5; but tells them to use a calculator, again not giving students an opportunity to choose the appropriate tool. In Lesson 6-10, students are told to use a pan balance to model the problem when MP5 is cited.
- MP7: Lesson 5-1 cites MP7. The teacher explains that polygons have at least 3 sides, and they are all line segments so students are not looking for and making use of structure. Lesson 5-12 cites MP7; and again the teacher explains the patterns and relationships. Lesson 6-2 cites MP7; Students are asked how solution sets for inequalities differ from solution sets for equations; however, then the students are only given one example of each. There is no guidance for the teacher on how to help the students see the differences, and in order to look for and make use of structure students would need more than one example of each.

EARNED **0 of 2** POINTS

Indicator 2g.i

Materials prompt students to construct viable arguments and analyze the arguments of others concerning key grade-level mathematics detailed in the content standards.

The materials partially meet the expectation for prompting students to construct viable arguments and analyze the evidence of others. MP3 is not explicitly called out in the student material. Although the materials at times prompt students to construct viable arguments, the materials miss opportunities for students to analyze the arguments of others, and the materials rarely have students do both occur together.

There are some questions that do ask students to explain their thinking on assessments and in the materials. Sometimes there are questions asking them to look at other's work and tell whether the student is correct or incorrect and explain. Little direction is provided to make sure students are showing their critical thinking, process or procedure, or explaining their results. Many questions that prompt students to critique the reasoning of others tell the student if the reasoning was originally correct and incorrect. It should be noted though that student materials never explicitly call out entire MPs at once; MP3 is broken into GMP 3.1 and GMP 3.2 in the materials.

The open response lessons could be opportunities for students to construct arguments for or against a mathematical question. However, besides just working in groups, there is little prompting from the teacher for students to discuss the answers of other groups or students

The following are some examples of where the materials indicate that students are being asked to engage in MP3 (Unit 1 and 6 claim MP3 to be a focus):

- For Unit 1, about half of the 14 lessons have opportunities for students to construct viable arguments, but some of those opportunities, such as in lessons 1-4 and 1-5, are only for students that volunteer and are chosen by the teacher.
- For Unit 1, there are only two lessons where students are expected to analyze the arguments of others. Both of these lessons also have students construct viable arguments. Neither of them prompt students to use critiques of their arguments to improve their arguments.
- Math Boxes, page 24, question 5 asks students to explain their reasoning for selecting an answer.
- Math Boxes, page 48, question 5 asks students to explain how they solved problem 2.
- Math Boxes, page 79, question 5 asks students to explain how they found the balance point in problem 3.
- For Unit 6, less than half of the 11 lessons identify opportunities for students to construct viable arguments. Lesson 6-6 has an opportunity for students to construct an argument that includes multiple parts. However, there is no opportunity for students to have their arguments critiqued so that the arguments might be improved.
- For Unit 6, there are only two lessons where students are expected to analyze the arguments of others. Neither of these lessons also identify opportunities for students to construct viable arguments.

EARNED **1 of 2** POINTS

Indicator 2g.ii

Materials assist teachers in engaging students in constructing viable arguments and analyzing the arguments of others concerning key grade-level mathematics detailed in the content standards.

The materials partially meet the expectation for assisting teachers in engaging students in constructing viable arguments and analyzing the arguments of others concerning key grade-level mathematics detailed in the content standards. The Grade 6 materials sometimes give teachers questions to ask students to have them form arguments or analyze the arguments of others, but typically the materials do not give both at the same time.

In the teacher's guide and lessons, the teachers have very specific, almost scripted, directions for students. Most, if not all, of the Math Master worksheets are presented in a step-by-step directive that does not allow for students to evaluate, justify, or explain their thinking. Usually only one right answer is available to the posed problem, and there is not a lot of teacher guidance on how to lead the discussion given besides a question to ask. There are many missed opportunities to guide students in analyzing the arguments of others. Students spend time explaining their thinking but not always justifying their reasoning and creating an argument.

The following are examples of lessons aligned to MP3 that have missed opportunities to assist teachers in engaging students in constructing viable arguments and analyzing the arguments of others:

- Lesson 1-2 states, "Have students share how they matched a dot plot to each statistical question." The missed opportunity here is for teachers to guide students in a rich discussion about how they used the dot plot.
- Lesson 1-4 states, "Have the students pose arguments for why the two sides are not balanced," but teachers are not given guidance to help students pose the arguments.
- Lesson 1-9 is the open response lesson. It tells the teacher to ask "which histogram better supports your view" and "which features of the graph helped you to make your argument," but does not provide guidance to the teacher to guide students in a rich discussion.
- Lesson 2-5 cites MP3; however, the questions posed have right and wrong answers and do not have students engaging in constructing viable arguments or analyzing the arguments of others. There is no direct guidance to help the teacher engage students in MP3.

- Lesson 2-8 has students explain whose strategy is correct. Again, there is not instruction or guidance for the teacher to help the students explore the explanations of others.

EARNED **1 of 2** POINTS

Indicator 2g.iii

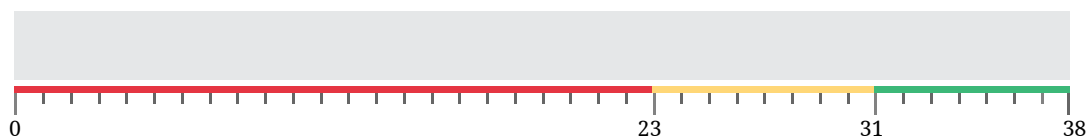
Materials explicitly attend to the specialized language of mathematics.

The instructional materials reviewed for Grade 6 partially meet the expectations for explicitly attending to the specialized language of mathematics. Overall, the materials for both students and teachers have multiple ways for students to engage with the vocabulary of mathematics; however, often the correct vocabulary is not used.

- Each unit includes a list of important vocabulary in the unit organizer which can be found at the beginning of each unit.
- Vocabulary terms are bolded in the teacher guide as they are introduced and defined but are not bolded or stressed again in discussions where students might use the term in discussions or writing.
- Each regular lesson includes an online tool, "Differentiating Lesson Activities." This tool includes a component, "Meeting Language Demands," that includes vocabulary, general and specialized, as well as strategies for supporting beginning, intermediate, and advanced ELLs. An example of this, from Lesson 7-4, includes "For Beginning ELLs, use visuals, restatements, role play, and read-clouds to help students understand task directions and written statements."
- Everyday Math comes with a reference book that uses words, graphics and symbols to support students in developing language.
- Some units have a heavy load of required mathematical vocabulary. In unit 5, there are 28 vocabulary words needed for students in Grade 6 to understand the unit. Some of these words include compose, cubic units, decompose, net, scale drawing, surface area and others. In contrast, Unit 8 only has 12 vocabulary words for the unit which is a much more manageable number for students in Grade 6.
- Correct vocabulary is often not used. For example, name-collection box instead of equivalent equations or equivalent expressions, nested parenthesis instead of brackets, number model instead of expression, responding variable instead of dependent, and manipulated variable instead of independent variable.

EARNED **1 of 2** POINTS

**GATEWAY 3: USABILITY
DID NOT REVIEW**



This material was not reviewed for Gateway Three because it did not meet expectations for Gateways One and Two

