Instructional Materials Evaluation - Student Standards Review

Louisiana educators engaged in a professional review of the state's academic standards for English language arts (ELA) and mathematics to ensure they continue to maintain strong expectations for teaching and learning aligned with college and workplace demands. The new ELA and math standards will be effective beginning with the 2016-2017 school year. As part of the Louisiana Department of Education's support for a seamless transition to these new standards, the LDOE identified the major changes of the standards and their potential impact upon criteria used to review instructional materials.

Title: **HMH Math in Focus Courses 1-3** Grade: **6-8**

Publisher: **Houghton Mifflin Harcourt** Copyright: **2013**

Overall Rating: **Tier III, Not representing quality**

This Mathematics review has been examined for the following major shifts in alignment resulting from the Louisiana Student Standards Review:

- Include standards for money in grades K, 1, and 3 to ensure connections that provide smooth transitions from one grade to the next
- Provide developmentally appropriate content for all grades or courses while maintaining high expectations:
  - Additive area is moved to grade 4 from grade 3
  - The Statistics - Conditional Probability and the Rules of Probability (S-CP) domain is moved from Algebra II to Geometry
  - The standards provide extra clarity around the distinction between Algebra I and II

The following two indicators may be impacted:

- Focus on Major Work (Non-Negotiable)
- Consistent, Coherent Content (Non-Negotiable)

This review remains a Tier 3 rating. As a result of these changes, the following chart identifies the potential impact on specific elements in the current review. The LDOE recommends that district curriculum staff, principals, and teachers take these findings into consideration when using these instructional materials.

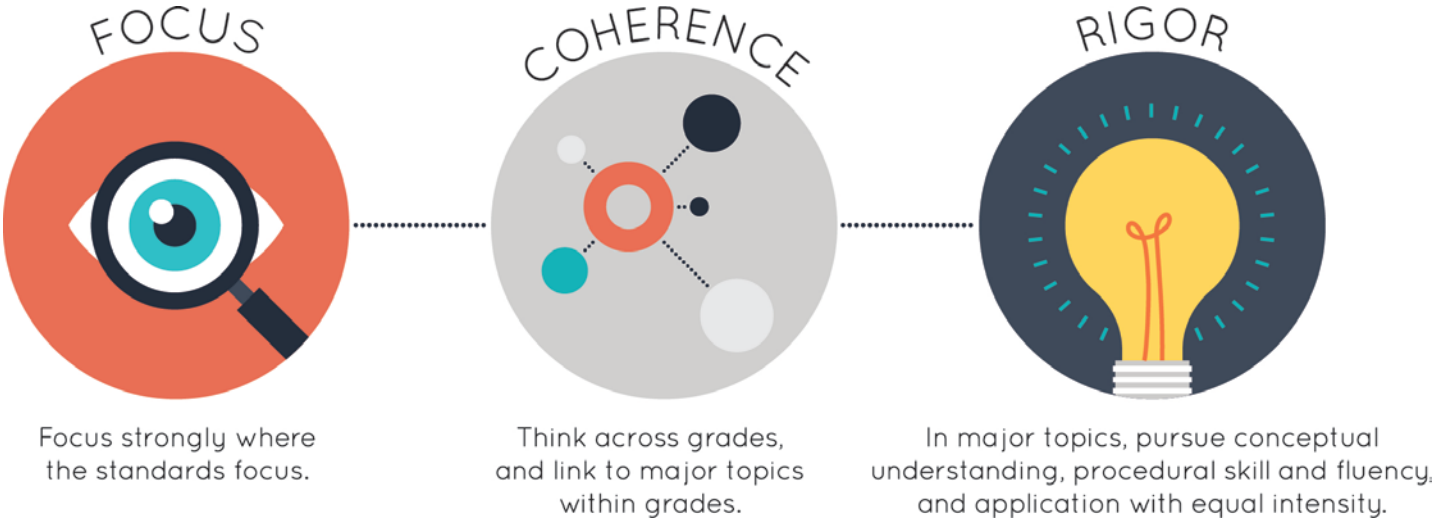
Criteria	Currently in the Rubric	Next Steps for Educators
Focus on Major Work (Non-Negotiable)	This program currently is reviewed as "Yes" for this criterion for grade 8 because the materials devote the large majority of class time to the major work of the grade. This program currently is reviewed as "No" for this criterion for grades 6 and 7 because the materials spend ample time on content outside of the appropriate grade.	For grade 8, make sure to review all assessment materials to ensure alignment to new clarifications/limitations and the revised, as well as, the placement of standards by grade/course. For grades 6 and 7, since these materials received a "No" for this indicator, the current weakness will likely remain and should be addressed by adjusting or supplementing with stronger programs.
Consistent, Coherent Content (Non-Negotiable)	This program currently is reviewed as "Yes" for this criterion for grade 6 because the materials connect supporting content to major content in meaningful ways. This program currently is reviewed as "No" for this criterion for grades 7 and 8 because lessons that address supporting content do not connect to major content.	For grade 6, make sure to review instructional materials focused on new supporting content (e.g., money in Grades K and 1) to ensure it supports the major work of the grade/course. For grades 7 and 8, since these materials received a "No" for this indicator, the current weakness will likely remain and should be addressed by adjusting or supplementing with stronger programs.

DEPARTMENT of EDUCATION
Louisiana Believes

Instructional Materials Evaluation Review for Alignment in Mathematics Grades K – 12 (IMET)

FULL CURRICULUM
Instructional Materials

Strong mathematics instruction contains the following elements:



Title: **HMH Math in Focus Courses 1-3** Grade: **6-8**

Publisher: **Houghton Mifflin Harcourt** Copyright: **2013**

Overall Rating: **Tier III, Not representing quality**

Tier I, Tier II, Tier III Elements of this review:

STRONG	WEAK
4. Focus Coh. via Practice Std (Non-Negotiable) *	1. Focus on Major Work (Non-Negotiable) **
	2. Consistent, Coherent Content (Non-Negotiable) ***
	3. Rigor and Balance (Non-Negotiable)
	** Strong at Grade 8
* Weak at Grade 8	*** Strong at Grade 6

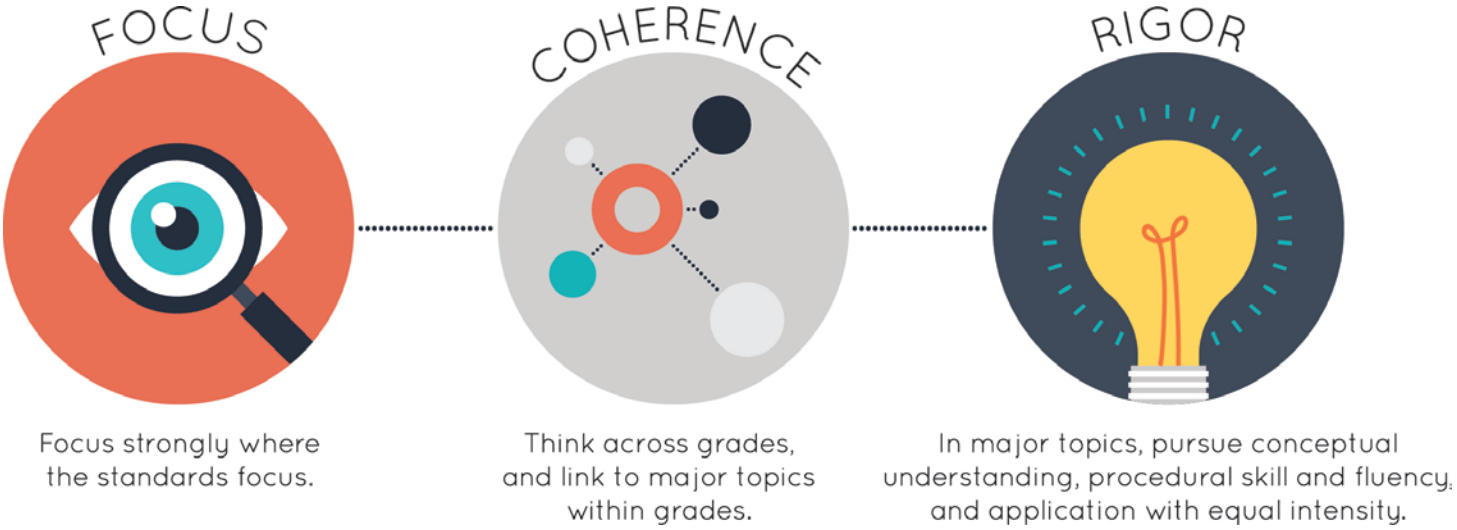
Each set of submitted materials was evaluated for alignment with the standards beginning with a review of the indicators for the non-negotiable criteria. If those criteria were met, a review of the other criteria ensued.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 7.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one "No" in Column 1 for the remaining criteria.
Tier 3 ratings receive a "No" in Column 1 for at least one of the non-negotiable criteria.

Click below for complete grade-level reviews:

Grade 6 (Tier 3) Grade 7 (Tier 3) Grade 8 (Tier 3)

Strong mathematics instruction contains the following elements:



Title: **HMH Math in Focus Course 1** Grade: **6**

Publisher: **Houghton Mifflin Harcourt** Copyright: **2013**

Overall Rating: **Tier III, Not representing quality**

Tier I, Tier II, Tier III Elements of this review:

STRONG	WEAK
2. Consistent, Coherent Content (Non-Negotiable)	1. Focus on Major Work (Non-Negotiable)
4. Focus Coh. via Practice Std (Non-Negotiable)	3. Rigor and Balance (Non-Negotiable)

To evaluate each set of submitted materials for alignment with the Standards, begin by reviewing the indicators listed in Column 2 for the non-negotiable criteria in Section I. If there is a "Yes" for all indicators in Column 2 for Section I, then the materials receive a "Yes" in Column 1. If there is a "No" for any indicator in Column 2 for Section I, then the materials receive a "No" in Column 1.

For Section II, begin by reviewing the required indicators in Column 2 for each criterion. If there is a "Yes" for all required indicators in Column 2, then the materials receive a "Yes" in Column 1. If there is a "No" for any required indicators in Column 2, then the materials receive a "No" in Column 1.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 7.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one "No" in Column 1 for the remaining criteria.
Tier 3 ratings receive a "No" in Column 1 for at least one of the non-negotiable criteria.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.			
Non-Negotiable **1. FOCUS ON MAJOR WORK[1]:** Students and teachers using the materials as designed devote the large majority[2] of time to the major work of the grade/course. ☐ Yes ☒ No	**REQUIRED** **1a)** Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.	**Yes**	Sixty-eight percent (64 out of 94 lesson days) focus on grade 6 standards including the major content: 6.RP.A, 6.NS.A, 6.NS.C, 6.EE.A, 6.EE.B, and 6.EE.C. As indicated in the teacher's materials, each chapter and chapter section identifies the grade level standards for 6th grade.
	REQUIRED **1b)** In any one grade/course, aligned materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In aligned materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.[3]	**No**	Eight lessons focus on content outside of 6th grade. Lesson 1.2 begins reviewing prime factorization. But, this lesson scaffolds for Lesson 1.3 where prime factorization is used as a method for calculating the GCF and LCM. Lesson 7.5 includes many exercises that require students to calculate the perimeter of a triangle. Lessons 1.4 and 1.5 discuss cubes, squares, and roots (8.EE.2). Many problems involving percents are including in Lesson 6.4. But, standard 6.RP.3 limits percent problems to those requiring students to calculate the percent or whole, not the percent of a quantity. Lessons 6.4 and 6.5 introduce percent of change, interest, markups, and taxes. These topics are not introduced until 7th grade (7.RP.3). Chapter 11 is devoted entirely to the circumference and area of circles. Students are not exposed to the properties of circles until 7th grade (7.G.4). The assessments for Chapters 1, 6 and 11 include questions that test the standards of 7.RP.3, 7.G.4, and 8.EE.2.
Non-Negotiable **2. CONSISTENT, COHERENT CONTENT** Each course's instructional	**REQUIRED** **2a)** Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.[4]	**Yes**	Materials connect supporting content to major content in meaningful ways. For example, in Lesson 4.3, Brain Work problem 1 connects supporting content 6.G.1 to the major content of ratios (6.RP.3). In Lesson 9.2, students find the length of line segments drawn on a coordinate grid using the

[1] For more on the major work of the grade, see Focus by Grade Level.
[2] The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.
[3] Refer also to criterion #2 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[4] Refer also to criterion #3 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
materials are coherent and consistent with the content in the Standards. ☒ Yes ☐ No			absolute value of the coordinate points. This connects supporting content 6.G.3 to major content 6.NS.8. In Lesson 12.3, students find the volume of rectangular prisms using the formula V=lwh (6.G.2), which connects to 6.EE.2, evaluating expressions at specific values of their variables. NOTE: there were rare opportunities provided for the integration of the standard 6.NS.3.
	REQUIRED **2b)** Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade/course, in cases where these connections are natural and important. [5]	**Yes**	Materials connect across clusters and across domains. For example, when students are learning to write expressions in Chapter 7, the material refers back to Chapter 3 when the student learned how to multiply and divide fractions. In Lesson 4.2, greatest common factors (6.NS.4) are supporting writing ratios in simplest form (6.RP.3a). In Lesson 10.2, problems 13-16 connect operations with decimals (6.NS.3) to finding the area of parallelograms and trapezoids (6.G.1). The exercises within Lesson 10.2 connect standards 6.NS.3 and 6.G.1. The chapter tasks connect content from multiple clusters within domains. Lesson 9.1 and 9.2 connect standards 6.G.3 and 6.NS.8. Within these lessons students find points on the coordinate plane and the lengths (distance) of line segments. Lesson 12.3 requires students to find the volume of rectangular prisms (6.G.2).
Non-Negotiable **3. 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,	**REQUIRED** **3a)** ***Attention to Conceptual Understanding:*** Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.	**Yes**	Materials develop conceptual understanding of key concepts, especially where called for in the standards. For example, Lesson 3.1 uses models to help students develop conceptual understanding of dividing a whole number by a fraction. Students also model dividing a fraction by a fraction using a paper-folding activity in this lesson (6.NS.1). Lesson 4.2 helps students build conceptual understanding of equivalent ratios (6.RP.3a) using pictures to model various grouping of objects. In Lesson 6.2, students

[5] Refer also to criterion #6 in the K–8 Publishers' Criteria and #4 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
procedural skill and fluency, and application.[6] ☐ Yes ☒ No			are asked to explain how they would express 1 3/4 as a percent (6.RP.3c). Note: the teacher will need to supplement written and verbal explanations as indicated in the teacher material.
	REQUIRED **3b) *Attention to Procedural Skill and Fluency:*** The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	**No**	While there are ample exercises to development procedural skills the material lacks practices in the required fluency standards, 6.NS.2 and 6.NS.3. No opportunities were provided for students to practice 6.NS.2. Operations with decimals were introduced within Chapter 3. Many practice problems were provided within each lesson and the chapter review. But, few opportunities were provided to practice standard 6.NS.3 beyond the initial introduction in Chapter 3. Sufficient opportunities for repeated practice were not provided throughout the year.
	REQUIRED **3c) *Attention to Applications:*** Materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the major work of each grade/course including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content Standards where expectations for multi-step and real-world problems are explicit.	**Yes**	Materials include ample opportunity to apply concepts to mathematical and real-world problems, especially where called for in the standards. The final lesson in each chapter provides engaging real world applications of the standards addressed within chapters. Each domain includes standards that address real-world problems. Chapter lessons, test questions and tasks provided within the teacher materials include exercises that require students to solve problems that apply to real life. For example, 6.G.3 specifically calls for application to real-world problems. In Lesson 9.2, students plot points on a coordinate grid to solve several real-world problems. For example, students plot points on a coordinate grid to represent a garden and then find the area of the garden.6.NS.7b also calls for application to real world. In Lesson 2.1, students write inequality statements for real-world situations including comparing temperatures and elevations. In Lesson 3.4, students solve multi-step real-world problems involving division of fractions by fractions

[6] Refer also to criterion #4 in the K–8 Publishers' Criteria and #2 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
			(6.NS.1).
	REQUIRED **3d) *Balance:*** The three aspects of rigor are not always treated together and are not always treated separately.	**No**	Although to some degree the materials are aligned to the content Standards for this grade. For an overwhelming majority of the course, the three components of rigor are collectively targeted in lessons, practice sets, and assessments even when the Standards do not call for all three components. For example, in Lesson 3.1, students build conceptual understanding of what it means to divide a fraction by a fraction, develop procedural skill with dividing fractions by fractions, and apply these skills to real-world problems (6.NS.1). Another example is in Lesson 4.2. Students develop conceptual understanding of the meaning ratios, build procedural skill with solving ratios, and apply these skills to solve problems involving ratios.
Non-Negotiable **4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS:** Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards.[7] ☒ Yes ☐ No	**REQUIRED** **4a)** Materials address the practice standards in such a way as to enrich the major work of the grade/course; practices strengthen the focus on major work instead of detracting from it, in both teacher and student materials.	**Yes**	Practice standards are embedded into the lessons throughout the materials, enriching the major work of the grade. Some examples include: In Lesson 3.2, students model multiplication of decimals (6.NS.3 an MP4). In problem 38 in this lesson, students are asked to explain to a friend how to multiply two decimals (MP3). In Lesson 3.4, the Brain Work problem requires students to make sense and persevere in problem solving to solve a multi-step, non-routine problem (MP1) involving division of decimals and fractions. In the Hands-On Activity in Lesson 6.2, students look for and make use of structure (MP7) when they explore the question, "If you want to use the method of writing an equivalent fraction to express a fraction as a percent, what must be true of the fraction or mixed number?" In Lesson 6.3, problem 20, students construct viable arguments (MP3) and reason quantitatively (MP2) when they must explain the error in another student's thinking and use an example to support

[7] Refer also to criterion #8 in the K–8 Publishers' Criteria and #6 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013)

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
			their reasoning. In the lesson plan for Lesson 1.1, the mathematical practices used are reason (MP2), construct arguments (MP3), model mathematics (MP4) when you compare the listed practices with student work, students are asked to reason and model problems and the teacher is prompted to direct the students in constructing arguments to justify their work.
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
Additional Criterion **5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT:** Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards. ☐ Yes ☐ No	**REQUIRED** **5a)** Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.[10]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	REQUIRED **5b)** Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.[10]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5c) Materials base content progressions on the progressions in the Standards. [8]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards.[9]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives. [11]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

[8] Refer also to criterion #5 in the K–8 Publishers' Criteria and #3 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[9] Refer also to criterion #6 in the K–8 Publishers' Criteria and #4 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
Additional Criterion **6. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL PRACTICE:** Aligned materials make meaningful and purposeful connections that enhance the focus and coherence of the Standards rather than detract from the focus and include additional content/skills to teach which are not included in the Standards. ☐ Yes ☐ No	**6a)** Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.[10] Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice standard.[11] There are teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. Alignments to practice standards are accurate.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6b) Materials Support the Standards' Emphasis on Mathematical Reasoning: Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3). Materials engage students in problem solving as a form of argument, attending thoroughly to places in the Standards that explicitly set expectations for multi-step problems. [12]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6c) Materials explicitly attend to the specialized language of mathematics.[12]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
Additional Criterion **7. INDICATORS OF QUALITY:** Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards. [13]	**7a)** There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7b) There are separate teacher materials that support and reward teacher study including, but not limited to:	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

[10] Refer also to criterion #9 in the K–8 Publishers' Criteria and #7 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[11] Refer also to criterion #7 in the K–8 Publishers' Criteria and #5 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[12] Refer also to criterion #10 in the K–8 Publishers' Criteria and #8 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[13] Refer also to pages 18-20 in the K – 8 Publishers' Criteria and pages 16-18 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
☐ Yes ☐ No	discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students.		
	7c) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7d) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7e) Lessons are appropriately structured and scaffolded to support student mastery.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7f) Materials support the uses of technology as called for in the Standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

FINAL EVALUATION

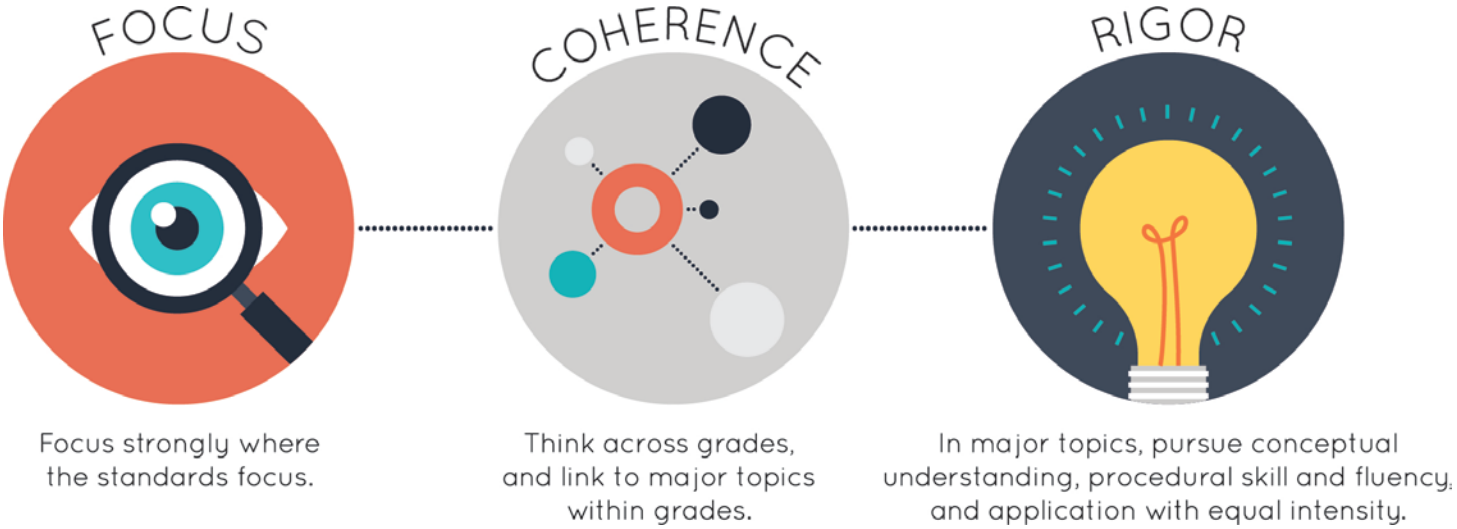
Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 7.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one "No" in Column 1 for the remaining criteria.
Tier 3 ratings receive a "No" in Column 1 for at least one of the non-negotiable criteria.

Compile the results for Sections I and II to make a final decision for the material under review.

Section	Criteria	Yes/No	Final Justification/Comments
I: Non-Negotiables	1. Focus on Major Work	**No**	Sixty-eight percent (64 out of 94 lessons days) focus on grade 6 standards. However, eight lessons focus and assess students on content outside of 6th grade.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
	2. Consistent, Coherent Content	**Yes**	Materials connect supporting content to major content in meaningful ways. For example, in Lesson 4.3, Brain Work problem 1 connects supporting content 6.G.1 to the major content of ratios (6.RP.3).
	3. Rigor and Balance	**No**	While there are ample exercises to development procedural skills the material lacks practices in the required fluency standards, 6.NS.2 and 6.NS.3.
	4. Focus and Coherence via Practice Standards	**Yes**	Practice standards are embedded into the lessons throughout the materials, enriching the major work of the grade.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7. Indicators of Quality	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL: **Tier III, Not representing quality**			

Strong mathematics instruction contains the following elements:



Title: **HMH Math in Focus Course 2** Grade: **7**

Publisher: **Houghton Mifflin Harcourt** Copyright: **2013**

Overall Rating: **Tier III, Not representing quality**

Tier I, Tier II, Tier III Elements of this review:

STRONG	WEAK
4. Focus Coh. via Practice Std (Non-Negotiable)	1. Focus on Major Work (Non-Negotiable)
	2. Consistent, Coherent Content (Non-Negotiable)
	3. Rigor and Balance (Non-Negotiable)

To evaluate each set of submitted materials for alignment with the Standards, begin by reviewing the indicators listed in Column 2 for the non-negotiable criteria in Section I. If there is a "Yes" for all indicators in Column 2 for Section I, then the materials receive a "Yes" in Column 1. If there is a "No" for any indicator in Column 2 for Section I, then the materials receive a "No" in Column 1.

For Section II, begin by reviewing the required indicators in Column 2 for each criterion. If there is a "Yes" for all required indicators in Column 2, then the materials receive a "Yes" in Column 1. If there is a "No" for any required indicators in Column 2, then the materials receive a "No" in Column 1.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 7.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one "No" in Column 1 for the remaining criteria.
Tier 3 ratings receive a "No" in Column 1 for at least one of the non-negotiable criteria.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.			
Non-Negotiable **1. FOCUS ON MAJOR WORK[14]:** Students and teachers using the materials as designed devote the large majority[15] of time to the major work of the grade/course. ☐ Yes ☒ No	**REQUIRED** **1a)** Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.	**No**	Approximately 52 percent of the materials on grade level. As a result only 57 out of 109 lesson days address the major content 7.NS, 7.RP, and 7.EE. For example, Chapter 6, 7, and 8 focus on content 7.G. Chapters 9 and 10 focus on supporting and additional content 7.SP. The remaining material focuses on below and above grade level material.
	REQUIRED **1b)** In any one grade/course, aligned materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In aligned materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.[16]	**No**	Some problems in chapter tests assess topics aligned with standards in future grade levels. For example, on Chapter 1 test #14, students are asked to locate an irrational number on a number line (8.NS.2). #15 on the same test asks students to put 3 numbers in order, one of which is a square root (8.EE.2). On Chapter 6 test #13, students are required to find the measure of an exterior angle (8.G.5). On Chapter 7 test #1, students are asked to construct perpendicular bisectors (G.CO.12), and on #4, students are required to construct an angle bisector and a perpendicular bisector for a given figure using a compass and a straight edge. On Chapter 8 test, #s 3, 4 and 5, 8a and 12b, students are required to find the volume of cones, cylinders, and spheres (8.G.9). Lesson 1.3 and 1.4 introduce and discuss irrational numbers. 7th graders should only be exposed to rational numbers. Irrational numbers are studied within standards 8.NS.1 and 8.NS.2. Lesson 1.5 discusses significant digits (8.NS.2). Lessons 6.3 and 6.4 address angles formed by perpendicular lines and transversals along with interior and exterior angles. Students are required to construct angles and perpendicular bisectors (G.CO.12) within lessons 7.1 and 7.2. Chapter 8 addresses the volume

[14] For more on the major work of the grade, see Focus by Grade Level.
[15] The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.
[16] Refer also to criterion #2 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
			and surface area of solids. Students apply standard 8.G.9 by finding the volume of spheres, cones, and cylinders. Lessons 9.1 - 9.3 focus on standards 6.SP.4 and 6.SP.5. Questions 1-12 of the Chapter 7 test involve angle bisectors (G.CO.12). Five questions of the chapter 8 test require students to find the surface area or volume of cones, spheres, and cylinders.
Non-Negotiable **2. CONSISTENT, COHERENT CONTENT** Each course's instructional materials are coherent and consistent with the content in the Standards. ☐ Yes ☒ No	**REQUIRED** **2a)** Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.[17]	**No**	No lessons or assessment questions meaningfully connected supporting standards of the domain of Statistics and Probability to 7.EE or 7.RP. Lessons 10.2 and 10.3 attempted to connect 7.RP and 7.SP. In addition, Chapters 9 and 10 are focused on 7.SP with no connections to 7.RP, 7.NS, or 7.EE.
	REQUIRED **2b)** Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade/course, in cases where these connections are natural and important. [18]	**Yes**	The examples, guided practice, and assessments of Chapter 10 connected the four operations with rational numbers. Lesson 2.6 connects standards 7.RP, 7.NS.1d, 7.NS.2c, 7.NS.3, 7.EE.1, and 7.EE.3. Operations with rational numbers including decimals were applied to problems involving percent and percent change. Example 13 and guided practice problem 4 presented connected standards 7.NS.1, 7.NS.2, 7.EE.1, and 7.G.6. All of these standards were applied to determine the area of 2D shapes. Question 14 of the Chapter 10 test also connected those domains. Question 22 of Lesson 3.1's practice required students to add algebraic terms in order to find the sum of the area of two rectangles.
Non-Negotiable **3. RIGOR AND BALANCE:** Each grade's instructional materials	**REQUIRED** **3a)** ***Attention to Conceptual Understanding:*** Materials develop conceptual understanding of key mathematical	**Yes**	Materials develop conceptual understanding of key concepts, especially where called for in the standards. 7.NS.1 calls for conceptual understanding. In Lesson 1.1, students are asked to explain in their

[17] Refer also to criterion #3 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[18] Refer also to criterion #6 in the K–8 Publishers' Criteria and #4 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
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.[19] ☐ Yes ☒ No	concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.		own words how to locate a rational number that is a mixed number on the number line (7.NS.1). Lesson 2.1 builds conceptual understanding of adding integers (7.NS.1) through the use of counter models and number line models. In Lesson 2.2, students build conceptual understanding of subtracting integers through the use of counter models and number line models (7.NS.1). Standard 7.EE.1 also calls for conceptual understanding. In Lessons 3.1-3.4, students use bar models to build conceptual understanding of combining like terms, subtracting algebraic terms, simplifying algebraic expressions, and expanding algebraic expressions (7.EE.1). Lesson 4.1 builds conceptual understanding of equivalent equations (7.EE.4) through the use of a balance scale. Note: the teacher will need to supplement written and verbal explanations as indicated in the teacher material.
	REQUIRED **3b) *Attention to Procedural Skill and Fluency:*** The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	**Yes**	Materials are designed so that students attain fluencies and procedural skills (7.NS.1-2 and 7.EE.B.4). For example, 7.NS.2 calls for procedural skill. In Lesson 1.1, there are more than 20 problems where students convert a rational number to a decimal using long division (7.NS.2). In Lesson 2.1, there are over 20 problems where students practice procedural skill of adding integers, which is called for in the standard (7.NS.1). Standards 7.NS.1 and 7.NS.2 require that students add, subtract, multiply, and divide rational numbers with precision and accuracy. Chapters 1 and 2 provided sufficient opportunities to practice these standards. The cumulative review for this chapter provides 41 practice problems. The Chapter 2 test provided 30 computation problems along with 11 additional real-world applications that required procedural skill. The practice of Lesson 2.6 presented 34 problems that required students to demonstrate procedural skill of standards 7.NS.1 and 7.NS.2. The practice and examples of Chapter 3 provided ample opportunities to work with algebraic

[19] Refer also to criterion #4 in the K–8 Publishers' Criteria and #2 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
			operations. For instance, questions 1-20 of the Lesson 3.1 practice provided opportunities to develop standard 7.EE.B.4, a fundamental skill of algebra.
	REQUIRED **3c) *Attention to Applications:*** Materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the major work of each grade/course including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content Standards where expectations for multi-step and real-world problems are explicit.	**Yes**	Materials are designed so that teachers and students spend sufficient time working with engaging applications. A significant portion of each assessment involved real-world problems. For instance, Chapter 10's problems involving probability used real life situations as contexts for the probability relationships. All fourteen problems of the Chapter 10 test applied to real life situations. 5 of those questions involved multi-step problems. Lesson 3.7 discusses real-world problems involving algebraic reasoning. In Lesson 2.1, students apply the skill of adding integers to real-world problems as specifically called for in 7.NS.3. Lessons 4.3 and 4.5 are devoted to students solving real-world problems algebraically (7.EE.4). In the Practice section of Lesson 5.1, there are 9 real-life or mathematical problems that require application of proportional relationships as required by the standard (7.RP.3).
	REQUIRED **3d) *Balance:*** The three aspects of rigor are not always treated together and are not always treated separately.	**No**	Although to some degree the materials are aligned to the content Standards for this grade. For an overwhelming majority of the course, the three components of rigor are collectively targeted in lessons, practice sets, and assessments even when the Standards do not call for all three components. For example, in Lesson 2.2, students have the opportunity to develop conceptual understanding of subtracting integers (7.NS.1c) through the use of models, apply this concept to real-world situations, such as how far below the surface a diver went. However, the standard does not require procedural skill and fluency where the materials focus a significant amount of time developing procedural skill with more than 20 problems skill building problems.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
Non-Negotiable **4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS:** Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards.[20] ☒ Yes ☐ No	**REQUIRED** **4a)** Materials address the practice standards in such a way as to enrich the major work of the grade/course; practices strengthen the focus on major work instead of detracting from it, in both teacher and student materials.	**Yes**	Materials address the practice standards that naturally enrich the major work of the 7th grade. In the teacher's materials, the table of content lists how standards and mathematical practices are included in each lesson and chapter. In addition, lesson plans list the mathematical practices used in each lesson. When you connect the teacher material to the student material, the mathematical practices are used in the exercises to enhance student understanding. For example, in the lesson plan for Lesson 6.1 the mathematical practices used are reason (MP2), construct arguments (MP3), use tools strategically (MP5) when you compare the listed practices with student work, students are asked to reason and model problems and the teacher is prompted to direct the students in constructing arguments to justify their work. In Lesson 2.1 student use counter models and number line models (MP4) to add and subtract integers. In Lesson 2.2, students analyze the results from modeling subtraction of integers using counter models (MP4) to generalize how to subtract integers (MP8). In Lesson 2.3, students study the patterns in a table to generalize the result of multiplying two positive integers and the result of multiplying a positive and a negative integer (MP.8). In Lesson 4.1 on page 195, students are shown a mistake someone made in making equivalent equations, are asked to explain the mistake, and to write the correct equation (MP3). On page 196, students have another opportunity to critique the reasoning of others by either agreeing or disagreeing with someone's conclusion and explaining why (MP3). In Lesson 4.4 on page 226, students observe what happens to the inequality symbol when both sides are divided by a positive number and also a negative number. Students generalize and write a rule based on their observations (MP8). On page 233, students analyze sample work and describe and correct the

[20] Refer also to criterion #8 in the K–8 Publishers' Criteria and #6 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013)

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
			error that was made (MP3).
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
Additional Criterion **5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT:** Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards. ☐ Yes ☐ No	**REQUIRED** **5a)** Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.[10]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	REQUIRED **5b)** Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.[10]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5c) Materials base content progressions on the progressions in the Standards. [21]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards.[22]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives. [11]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
Additional Criterion **6. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL PRACTICE:** Aligned materials make meaningful and purposeful connections that enhance the focus and coherence	**6a)** Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.[23] Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice standard.[24] There are teacher-	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

[21] Refer also to criterion #5 in the K–8 Publishers' Criteria and #3 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[22] Refer also to criterion #6 in the K–8 Publishers' Criteria and #4 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[23] Refer also to criterion #9 in the K–8 Publishers' Criteria and #7 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[24] Refer also to criterion #7 in the K–8 Publishers' Criteria and #5 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
of the Standards rather than detract from the focus and include additional content/skills to teach which are not included in the Standards. ☐ Yes ☐ No	directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. Alignments to practice standards are accurate.		
	6b) Materials Support the Standards' Emphasis on Mathematical Reasoning: Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3). Materials engage students in problem solving as a form of argument, attending thoroughly to places in the Standards that explicitly set expectations for multi-step problems. [25]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6c) Materials explicitly attend to the specialized language of mathematics.[12]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
Additional Criterion **7. INDICATORS OF QUALITY:** Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards. [26] ☐ Yes ☐ No	**7a)** There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7b) There are separate teacher materials that support and reward teacher study including, but not limited to: discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7c) Support for English Language Learners and other	**Not Evaluated**	This section was not evaluated because the non-

[25] Refer also to criterion #10 in the K–8 Publishers' Criteria and #8 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[26] Refer also to pages 18-20 in the K – 8 Publishers' Criteria and pages 16-18 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
	special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered.		negotiable criteria were not met.
	7d) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7e) Lessons are appropriately structured and scaffolded to support student mastery.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7f) Materials support the uses of technology as called for in the Standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

FINAL EVALUATION

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 7.

Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one "No" in Column 1 for the remaining criteria.

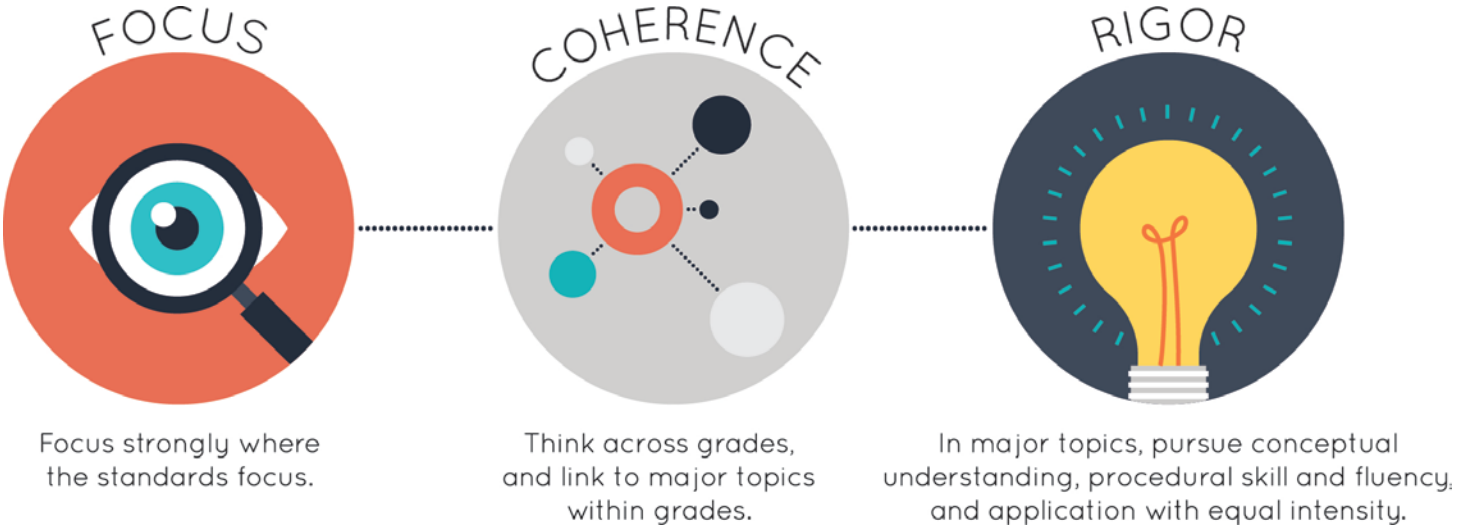
Tier 3 ratings receive a "No" in Column 1 for at least one of the non-negotiable criteria.

Compile the results for Sections I and II to make a final decision for the material under review.

Section	Criteria	Yes/No	Final Justification/Comments
I: Non-Negotiables	1. Focus on Major Work	**No**	While the materials focus on grade 7 standards, 52 percent of time (57 out of 109 lesson days) addresses only the major content 7.NS, 7.RP, and 7.EE.
	2. Consistent, Coherent Content	**No**	Some problems in chapter tests assess topics aligned with standards in future grade levels
	3. Rigor and Balance	**No**	By always treating the three aspects of rigor together, the materials lack focus and do not allow students the opportunity to sufficiently develop each component of rigor.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
	4. Focus and Coherence via Practice Standards	**Yes**	Materials address the practice standards that naturally enrich the major work of the 7th grade. In the teacher's materials, the table of content lists how standards and mathematical practices are included in each lesson and chapter.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7. Indicators of Quality	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL: **Tier III, Not representing quality**			

Strong mathematics instruction contains the following elements:



Title: **HMH Math in Focus Course 3** Grade: **8**

Publisher: **Houghton Mifflin Harcourt** Copyright: **2013**

Overall Rating: **Tier III, Not representing quality**

Tier I, Tier II, Tier III Elements of this review:

STRONG	WEAK
1. Focus on Major Work (Non-Negotiable)	2. Consistent, Coherent Content (Non-Negotiable)
	3. Rigor and Balance (Non-Negotiable)
	4. Focus Coh. via Practice Std (Non-Negotiable)

To evaluate each set of submitted materials for alignment with the Standards, begin by reviewing the indicators listed in Column 2 for the non-negotiable criteria in Section I. If there is a "Yes" for all indicators in Column 2 for Section I, then the materials receive a "Yes" in Column 1. If there is a "No" for any indicator in Column 2 for Section I, then the materials receive a "No" in Column 1.

For Section II, begin by reviewing the required indicators in Column 2 for each criterion. If there is a "Yes" for all required indicators in Column 2, then the materials receive a "Yes" in Column 1. If there is a "No" for any required indicators in Column 2, then the materials receive a "No" in Column 1.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 7.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one "No" in Column 1 for the remaining criteria.
Tier 3 ratings receive a "No" in Column 1 for at least one of the non-negotiable criteria.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.			
Non-Negotiable **1. FOCUS ON MAJOR WORK[27]:** Students and teachers using the materials as designed devote the large majority[28] of time to the major work of the grade/course. ☒ Yes ☐ No	**REQUIRED** **1a)** Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.	**Yes**	Approximately 79 percent of time is on grade level. With 76 out of 96 lesson days devoted to grade 8 standards in major work (8.EE; 8.F and 8.G). Note that Chapter 10 focuses on supporting content 8.SP, and Chapter 11 focuses on 7.SP only.
	REQUIRED **1b)** In any one grade/course, aligned materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In aligned materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.[29]	**Yes**	Minimal time is spent on content outside Grade 8 standards. Each chapter begins with Recall Prior Knowledge section to revisit previously learned content and is clearly marked as such. All items assessed align with Grade 8 standards except for the Chapter 11 test, which assesses Grade 7 standards from cluster 7.SP.C.
Non-Negotiable **2. CONSISTENT, COHERENT CONTENT** Each course's instructional materials are coherent and consistent with the content in the Standards.	**REQUIRED** **2a)** Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.[30]	**No**	Lessons that address supporting content do not connect to major content. For example, all lessons in Chapter 10 focus on supporting cluster 8.SP.A. There are no connections in these lessons to any of the major content domains 8.EE, 8.F, or 8.G. In Lesson 10.1 on p. 176, there is a teacher's note that specifically points out the lack of connection between scatter plots (8.SP) and functions (8.F) in these materials.

[27] For more on the major work of the grade, see Focus by Grade Level.
[28] The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.
[29] Refer also to criterion #2 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[30] Refer also to criterion #3 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
☐ Yes ☒ No	**REQUIRED** **2b)** Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade/course, in cases where these connections are natural and important. [31]	**No**	Chapter content is isolated to one domain. Chapters 7-9 address the clusters 8.G.A. or 8.G.B. Chapter 10 supports the cluster 8.SP.A. Chapters 3-5 address content limited to the domain of Expressions and Equations. Chapter 6 discusses functions in isolation.
Non-Negotiable **3. 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.[32] ☐ Yes ☒ No	**REQUIRED** **3a)** ***Attention to Conceptual Understanding:*** Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.	**Yes**	Materials develop conceptual understanding of key concepts, especially where called for in the standards. In Lesson 3.1, students are shown the "why" behind the raising a power-to-power rule works (8.EE.1). In Lesson 5.1, students are introduced to the solving systems of linear equations using tables (8.EE.8). In Lesson 5.2, students are shown how to solve systems of linear equations using a bar model, and this model is connected to an algebraic method (8.EE.8). In Lesson 7.1, students engage in a hands-on activity rearranging right triangles to prove the Pythagorean Theorem (8.G.7). Note: The teacher will need to supplement written and verbal explanations as indicated in the teacher material.
	REQUIRED **3b)** ***Attention to Procedural Skill and Fluency:*** The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	**Yes**	Materials are designed so that students attain fluencies and procedural skills. The Practice section at the end of each lesson includes multiple problems to help students develop procedural skill. For example, Practice 1.3 includes 29 problems for students to simplify expressions and write the answers in exponential notation (8.EE.1). Practice 5.1 includes 9 procedural problems for students to practice solving systems of linear equations, (8.EE.8) and there are 24 procedural problems for students to practice this skill in Lesson 5.2. The guided practice of Chapters 1-6 provides opportunities for students to practice pre-algebra skills. Students are provided many opportunities to practice procedural skill within the warm-ups, tickets out the door, and

[31] Refer also to criterion #6 in the K–8 Publishers' Criteria and #4 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[32] Refer also to criterion #4 in the K–8 Publishers' Criteria and #2 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
			guided practice of individual lessons.
	REQUIRED **3c) *Attention to Applications:*** Materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the major work of each grade/course including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content Standards where expectations for multi-step and real-world problems are explicit.	**Yes**	Lesson examples and guided practice present many engaging applications. Standards 8.G.7 and 8.EE.8c reference real-world applications. Eighty-five percent (85%) of the practice problems within Lesson 7.1 support standard 8.G.7. Lesson 1.6 includes real-world problems involving squares and roots. Lesson 4.5 explains slope and y-intercept in real-life word problems. Lesson 5.3 supports standard 8.EE.8c by requiring students to use systems of equations to solve real-world problems. The examples within Lesson 10.1 use scatter plots to represent traffic patterns, study times, and test scores. 14/20 of the guided practice problems within the Chapter 8 review and 10/17 items of the 10.1-guided practice are presented in real-world contexts. In addition, math journal exercises require students to relate math content to real-life situations.
	REQUIRED **3d) *Balance:*** The three aspects of rigor are not always treated together and are not always treated separately.	**No**	Although to some degree the materials are aligned to the content Standards for this grade. For an overwhelming majority of the course, the three components of rigor are collectively targeted in lessons, practice sets, and assessments even when the Standards do not call for all three components. For example, in Lesson 4.1, students have the opportunity to develop conceptual understanding of slopes of lines (8.EE.6) through graphing, apply this concept to real-world situations, such as using distance and time as applied to walking from a point to another point, and develop procedural skill through more than 10 problems. The standard only requires students to have a conceptual understanding within the three aspects of rigor.
Non-Negotiable **4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS:**	**REQUIRED** **4a)** Materials address the practice standards in such a way as to enrich the major work of the grade/course;	**No**	The Mathematical Practices are tagged at the beginning of each lesson; however they are sometimes tagged incorrectly. For example, on page T31-T33, the Math Practices are tagged to specific

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards.[33] ☐ Yes ☒ No	practices strengthen the focus on major work instead of detracting from it, in both teacher and student materials.		page numbers. Chapter 1 page 5, 13, 24, and 25, and Chapter 8 page 83 (among others) are tagged to MP3. On these pages, there are no opportunities to explain reasoning, justify answers, or critique the reasoning of others. There are some opportunities for students to engage in the mathematical practices in the materials. For example, in Lesson 1.3, page 29, students are to reason about numbers as they decide if an expression will be positive or negative and explain how they know (MP2). In Lesson 5.1 on page 195, there is a technology activity where students use a graphing calculator to create tables of values and solve systems of equations (MP5). In Lesson 5.5, students identify whether a system of linear equations is dependent, inconsistent, or has a unique solution and justify their reasoning (MP3). In Lesson 4.5, students solve real-world problems involving slope and intercept (8.EE.5) and explain what the numbers mean in the context of the problem (MP2). There are few examples in the materials where students are asked to analyze and critique the work of others. For example, in Lesson 1.3, page 31, # 13, students have the opportunity to analyze sample work, decide if it is correct or not, and explain why they think so (MP3).
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
Additional Criterion **5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT:** Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in	**REQUIRED** **5a)** Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.[10]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	REQUIRED **5b)** Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

[33] Refer also to criterion #8 in the K–8 Publishers' Criteria and #6 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013)

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
the Standards. ☐ Yes ☐ No	materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.[10]		
	5c) Materials base content progressions on the progressions in the Standards. [34]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards.[35]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives. [11]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
Additional Criterion **6. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL PRACTICE:** Aligned materials make meaningful and purposeful connections that enhance the focus and coherence of the Standards rather than detract from the focus and include additional content/skills to teach which are not included in the Standards. ☐ Yes ☐ No	**6a)** Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.[36] Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice standard.[37] There are teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. Alignments to practice standards are accurate.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6b) Materials Support the Standards' Emphasis on Mathematical Reasoning: Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3). Materials engage students in problem solving as a form of argument, attending	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

[34] Refer also to criterion #5 in the K–8 Publishers' Criteria and #3 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[35] Refer also to criterion #6 in the K–8 Publishers' Criteria and #4 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[36] Refer also to criterion #9 in the K–8 Publishers' Criteria and #7 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[37] Refer also to criterion #7 in the K–8 Publishers' Criteria and #5 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
	thoroughly to places in the Standards that explicitly set expectations for multi-step problems. [38]		
	6c) Materials explicitly attend to the specialized language of mathematics.[12]	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
Additional Criterion **7. INDICATORS OF QUALITY:** Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards. [39] ☐ Yes ☐ No	**7a)** There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7b) There are separate teacher materials that support and reward teacher study including, but not limited to: discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7c) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7d) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

[38] Refer also to criterion #10 in the K–8 Publishers' Criteria and #8 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

[39] Refer also to pages 18-20 in the K – 8 Publishers' Criteria and pages 16-18 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
	7e) Lessons are appropriately structured and scaffolded to support student mastery.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7f) Materials support the uses of technology as called for in the Standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

FINAL EVALUATION
Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 7.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one "No" in Column 1 for the remaining criteria.
Tier 3 ratings receive a "No" in Column 1 for at least one of the non-negotiable criteria.

Compile the results for Sections I and II to make a final decision for the material under review.

Section	Criteria	Yes/No	Final Justification/Comments
I: Non-Negotiables	1. Focus on Major Work	**Yes**	Materials devote 79 percent of time (76 out of 96 lesson days) on grade 8 standards in major areas of major focus 8.EE; 8.F and 8.G.
	2. Consistent, Coherent Content	**No**	Chapter content is isolated to one domain. Chapters 7-9 address the clusters 8.G.A. or 8.G.B. Chapter 10 supports the cluster 8.SP.A. Chapters 3-5 address content limited to the domain of Expressions and Equations. Chapter 6 discusses functions in isolation.
	3. Rigor and Balance	**No**	By always treating the three aspects of rigor together, the materials lack focus and do not allow students the opportunity to sufficiently develop each component of rigor.
	4. Focus and Coherence via Practice Standards	**No**	The Mathematical Practices are tagged at the beginning of each lesson; however they are sometimes tagged incorrectly
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
	7. Indicators of Quality	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL: **Tier III, Not representing quality**			

Appendix I.

Publisher Response

The publisher had no response.

Appendix II.

Public Comments

There were no public comments submitted.