Original Posting Date: 3/25/2016
Updated on: 7/29/2016

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 Saxon Math Courses 1-3** Grade: **6-8**

Publisher: **Houghton Mifflin Harcourt** Copyright: **2012**

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)

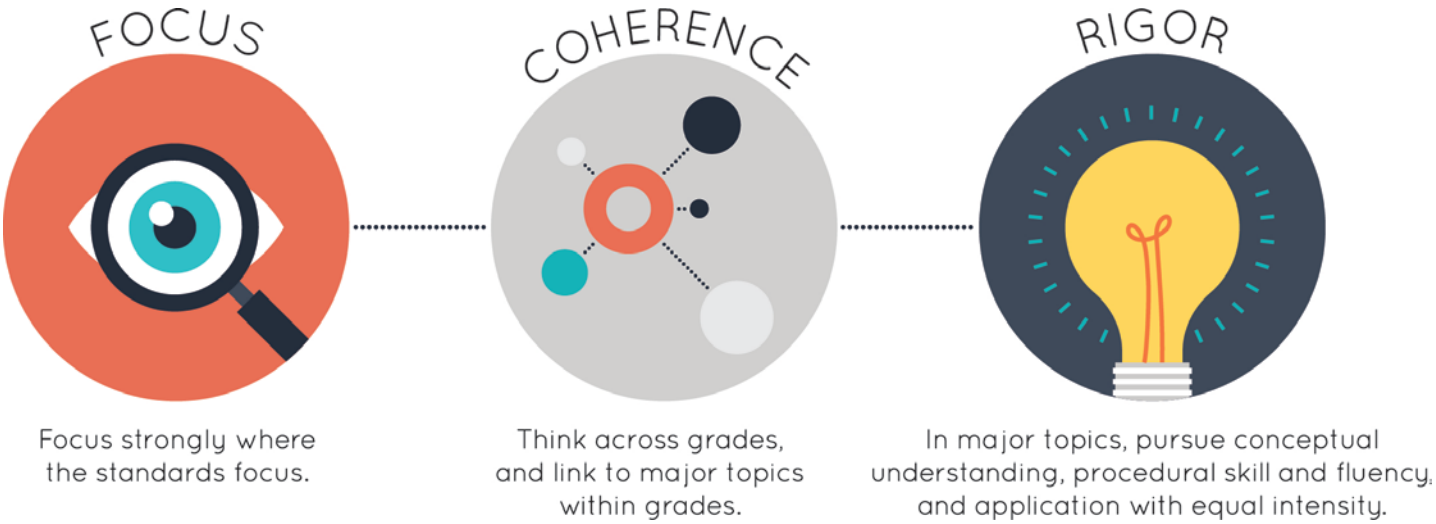
This review remains a Tier 3 rating. As a result of these changes, the following chart identifies the potential impact on specific elements in the current review. The LDOE recommends that district curriculum staff, principals, and teachers take these findings into consideration when using these instructional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

Criteria	Currently in the Rubric	Next Steps for Educators
Focus on Major Work (Non-Negotiable)	This program currently is reviewed as "No" for this criterion because the materials are not aligned to state standards and thus devote a significant amount of time to non-grade standards throughout. Between 23 and 70% of lessons are on grade level; the remaining lessons are below and above grade level.	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 "No" for this criterion because the materials were not consistently found to connect the major content to the supporting content in meaningful ways at all grade levels throughout the year because materials are not aligned to state standards and therefore devote a significant amount of time to non-grade standards throughout.	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.

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 Saxon Math Courses 1-3** Grade: **6-8**

Publisher: **Houghton Mifflin Harcourt** Copyright: **2012**

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)

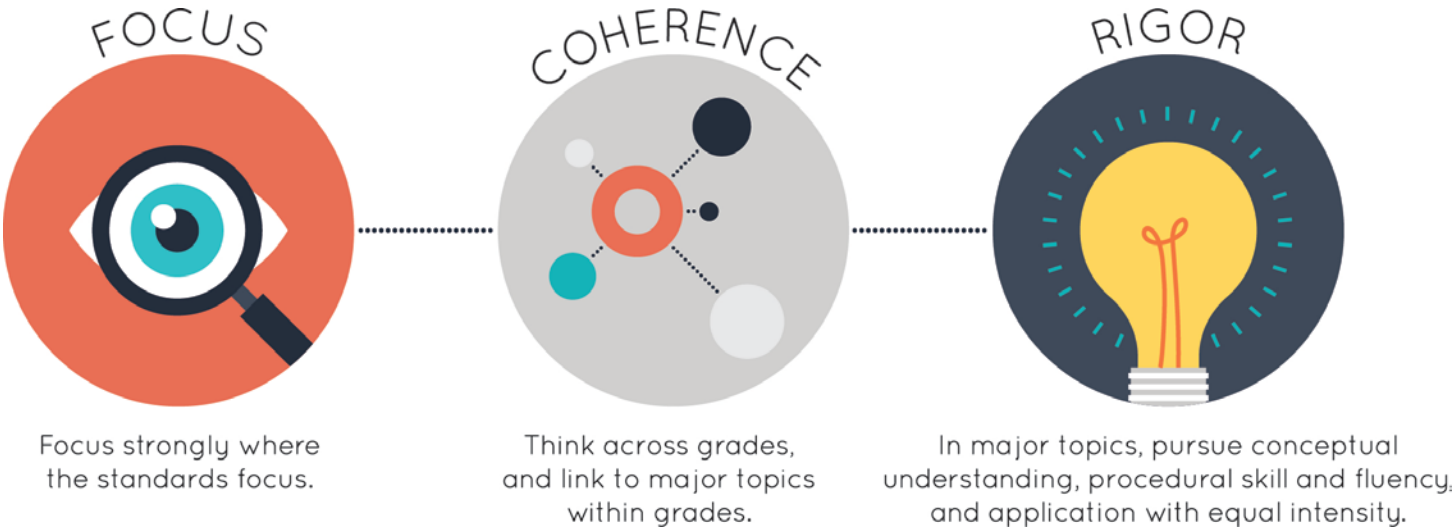
Each set of submitted materials was evaluated for alignment with the standards beginning with a review of the indicators for the non-negotiable criteria. If those criteria were met, a review of the other criteria ensued.

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 Saxon Math Course 1** Grade: **6**

Publisher: **Houghton Mifflin Harcourt** Copyright: **2012**

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[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.	**No**	Materials are not aligned to CCCSS. As a result, the materials devote a significant amount of time outside of 6th grade. Approximately 23% (27 out of 120 lessons) are on grade level. The remaining lessons are either below or above grade level. For example, Lessons 86 is on find the area of circles (7.G.4); Lesson 89 is on estimating square roots (8.EE.2); and Lesson 106 is on solving two-step equations (7.EE.4). In addition, in Section 6, Lessons 55, 56, 57, and 59 all focus on adding and subtracting fractions with unlike denominators, including mixed numbers (5.NF.1). Other examples include: Lesson 103 focuses on finding perimeter of complex shapes, including finding unknown sides, which is aligned with 3.MD.8 and Lesson 110 focuses on symmetry, which is aligned with 4.G.3. Very little time is spent on division of fractions. Standards 6.NS.5-8 are not taught addressed adequately.
	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**	A significant amount of time is spent on review material throughout the lessons. If testing focuses on the material being taught than it is outside of the grade level for many of the chapters. Unfortunately, access to the test bank was not provided by the publisher and could not be reviewed. While access to the full test bank was not provided, sample problems from each test was provided. Some assessment items provided assess content beyond 6th grade standards. Several examples follow. On Cumulative Test 4A, Section 3, page 135A, problem 4, students must find the difference between a negative and a positive number in a real life context, which aligns with 7.NS.1. On Cumulative Test 8A, Section 5, page 238A, students must solve 4 squared + the square root of 9, which is aligned with 8.EE.1

[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).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
			and 2. On Cumulative Test 12A, Section 7, page 241A, problem 1, students are asked to find the probability of an event, which is aligned with cluster 7.SP.C. On Cumulative Test 23A, Section 12, page 629A, problem 8, students must find the circumference of a wheel, given the diameter, which aligns with 7.G.4.
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.[4]	**No**	When grade level material was taught, the supporting content did not connect to the major content in a focused or coherent way. The supporting content of 6th grade addresses solving real world problems involving area, surface area, and volume while the lessons addressing 6.G. were stand alone and did not connect with any major content. When the opportunity to connect with the major content such as 6.RP and 6.NS, the connections were not made during the those lessons. For example, Lessons 2 and 4 provide the opportunity for using real world problems involving area as part of the problem set for multiplying whole numbers.
	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]	**No**	Most lessons focus on an isolated skill and, therefore, do not serve to connect clusters or domains in the grade. Some lessons are broken into two disconnected parts. For example, Lesson 73 has two isolated concepts - exponents and writing decimal numbers as fractions. There are no natural connections between these topics. Lesson 38 is broken into two isolated concepts: adding and subtracting decimals (6.EE.2) and square numbers and square roots (8.EE.2).
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**	When grade level content is being addressed, materials develop conceptual understanding of the material being taught. High quality problems are provided within the main lessons and interactive

[4] Refer also to criterion #3 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[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
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.[6] ☐ 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.		activities. For example, Section 5 focuses on and connects 6.NS.1 to 6.NS.2 to 6.NS.3 and Lesson 79 builds student understanding of why the formula ½ base times height works to find the area of a triangle. More examples: Lesson 54 uses visual fraction models to illustrate what happens when a fraction is divided by a fraction (6.NS.1). Lesson 71 builds conceptual understanding of area of parallelograms through use of a cutting activity using graph paper. The activity helps students connect their previous knowledge of area of a rectangle to the new concept of area of a parallelogram. Section 5, Lesson 41, uses grid models to illustrate decimal numbers. Lesson 46 uses place value charts to help illustrate what happens when decimal numbers are multiplied by powers of 10. 6.RP.1 calls for conceptual understanding of ratios. In Lesson 23, students have the opportunity to build this understanding through questions such as, "Is the win-loss ratio the same as the loss-win ratio?"
	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**	There is a lack of exercises where students demonstrate fluency for the grade level standards (6.NS.2 and 6.NS.3). In Lessons 1-10, fluency activities focus on addition and subtraction within 20 (2.OA.2) . Fluency activities in Lessons 11-20 focus on addition and subtraction within 20 and multiplication within 100 (3.OA.7). Fluency activities in Lessons 21-30 focus on multiplication and division within 100. Fluency activities in Lessons 31-50 alternate between addition and subtraction within 20, multiplication and division within 100, and reducing fractions to simplest form. The material provide activities at the beginning of each lesson to provide students the opportunity to practice fluency however they are not always grade level appropriate. Other problems sets involved two step equations and order of operations using square roots (7.EE and 8.NS).

[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
	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.	**No**	The content provides ample opportunity for the students and teachers to engage in applications that focus on the material being taught in each lesson. The material also provide multi-step problems throughout the material. However, because only 23% of the lesson taught are grade level appropriate applications, this does not guarantee that the students will be spending enough engagement that is focused on the major work of the grade level. For example, Lesson 73 provide instruction on the skill of solving expressions with exponents but does not focus on real world problems as required in the standard (6.EE.2). While students are given multiple opportunities to apply skills to real-world problems, these problems are many times not focused on grade level content. For example, in Lesson 100, there are 6 application problems in the Written Practice section. Two of them are on probability (cluster 7.SP.C), one is on ratio (6.RP.1), one is on relating fractions and percent, one is on circumference (7.G.4), and one is on simple conversions of liquid capacity (5.MD.1). Even when a standard specifically calls for real-world applications, students are not provided opportunities to apply the skills in such contexts. For example, Lesson 54 introduces dividing fractions by fractions. While visual fraction models are used to illustrate the concept, there are no opportunities in this lesson for students to apply their understanding in story contexts, which is explicitly called for in the standard (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, Lesson 23 focuses on 6.RP.1 understanding the concept of a ration and use ratio language to describe a ratio relationship between two quantities. During the lesson, there are practice problems that focus on all three aspects of rigor

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
			(analyze, model and explain) however the standard only requires conceptual understanding. 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.
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.	**No**	Materials do not address the major work of the grade level and are not aligned to Common Core State Standards but to the National Council of Teachers of Mathematics. When the essence of a mathematical practice is used in the materials, it is used in isolate manner that is not connected to the lesson content but to a lesson warm up. In addition, MP.3 and MP.4 are not addressed within the lessons at all. Examples of alignment to NCTM standards: Lesson 15 is shown to align with NCTM standards AL.1b, PS.1c, and CN.4c. Lesson 55 is shown to align with NCTM standards NO.1a, NO.2a, NO.3a, and NO.3c.
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.	**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.

[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
☐ Yes ☐ No	**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.
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	**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).
[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).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
	of mathematics.[12]		
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] ☐ 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.
	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.

[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

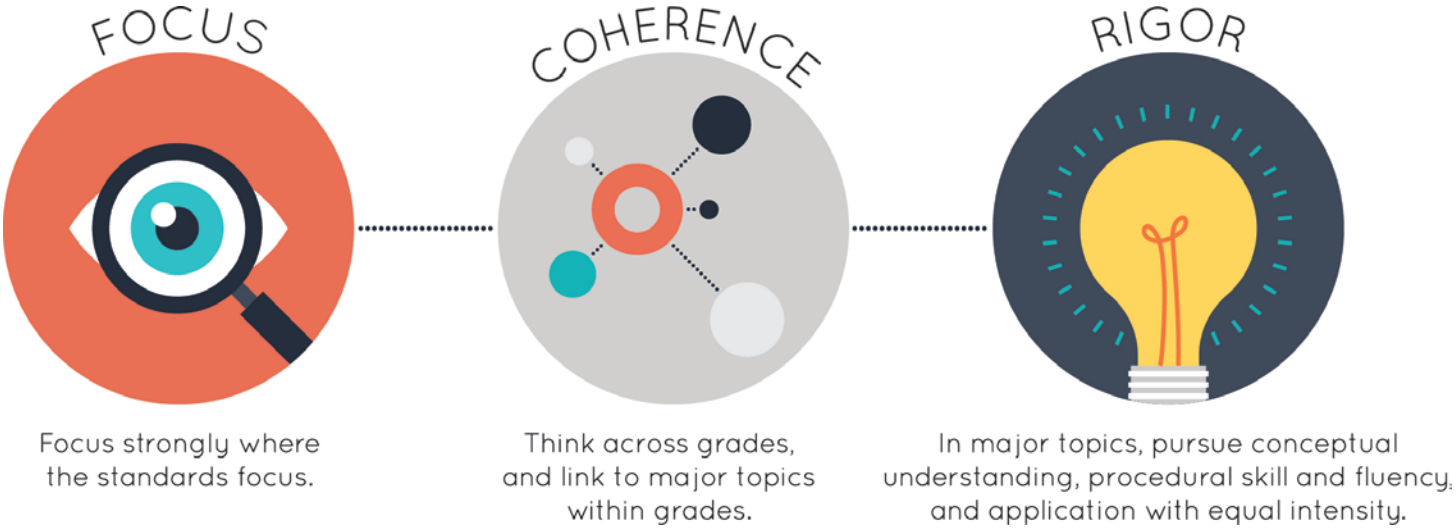
FINAL EVALUATION
Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 7.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one "No" in Column 1 for the remaining criteria.
Tier 3 ratings receive a "No" in Column 1 for at least one of the 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**	Materials are not aligned to CCSS and thus devote a significant amount of time to non-grade standards throughout. Approximately 23% (27 out of 120 lessons) are on grade level. The remaining lessons are either below or above grade level.
	2. Consistent, Coherent Content	**No**	When grade level material was taught, the supporting content did not connect to the major content in focused and coherent ways.
	3. Rigor and Balance	**No**	There is a lack of exercises where students demonstrate fluency for the grade level standards (6.NS.2 and 6.NS.3). The material provide activities at the beginning of each lesson to provide students the opportunity to practice fluency however they are not always grade level appropriate.
	4. Focus and Coherence via Practice Standards	**No**	Materials do not address the major work of the grade level and are not aligned to Common Core State Standards but to the National Council of Teachers of Mathematics.
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.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
FINAL DECISION FOR THIS MATERIAL: **Tier III, Not representing quality**			

Strong mathematics instruction contains the following elements:



Title: **HMH Saxon Math Course 2** Grade: **7**

Publisher: **Houghton Mifflin Harcourt** Copyright: **2012**

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[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**	Materials are not aligned with CCSS and therefore devote a significant amount of time to work outside of the 7th grade. Approximately 58% (70 out of 120 lessons) are on grade level. The remaining lessons are either below or above grade level. For example, Lessons 47, 51, 57, and 111 on scientific notation (8.EE.A.3); Lesson 9 on adding, subtracting, and multiplying fractions (5.NF.1 and 5.NF.6); Lesson 25 on dividing fractions (6.NS.1); and Lesson 37 on area of triangles (6.G.1).
	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**	A significant amount of time is spent on review material throughout the lessons. If testing focuses on the material being taught than it is outside of the grade level for many of the chapters. While access to the full test bank was not provided by the publisher, sample problems from each test were provided. Some assessment items assess content beyond 7th grade standards. For example, on Cumulative Test 6A, Section 6, page 254A, problem 8, students are asked to describe the rule of a function table, which is introduced in the 8th grade standards. On Cumulative Test 21A, Section 11, page 772A, problem 8, students are asked to use the Pythagorean theorem to find a dimension (8.G.7). On Cumulative Test 22A, Section 12, page 808A, problem 6, students are asked to find the volume of a cylinder (8.G.9).
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.[17]	**No**	When grade level material was taught, the supporting content did not connect to the major content in focused and coherent ways. For example, Lesson 36 attempts to connect probability (7.SP.5) which was presented in Lesson 14, to ratios

[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).
[17] 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			(6.RP.1). Lesson 94, which presents probability of dependent events (7.SP.5), does not connect to major content.
	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]	**No**	Most lessons focus on an isolated skill and, therefore, do not serve to connect clusters or domains in the grade. Some lessons are broken into two disconnected parts. For example, Lesson 35 connects multiplying decimals to area of a rectangle (6.NS.3 and 6.G.1) . There are no natural connections between these topics. Other examples: Lesson 96 is broken into two isolated skills with no natural connection – estimating angle measures (4.MD.6) and using the distributive property to simplify algebraic expressions (6.EE.3), and Lesson 4 is broken into two isolated skills with no natural connection – addition and subtraction of rational numbers (7.NS.1) and sequences.
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.[19] ☐ 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**	When grade level content is being addressed, materials develop conceptual understanding of the material being taught. High quality problems are provided within the main lessons and interactive activities. For example, Section 5 focuses on number operations and connects 7.NS.A.2 with 7.EE.A.1, 7.EE.A.2 and 7.EE.B.3. In addition, 7.NS.1 calls for understanding of addition and subtraction with rational numbers. Lesson 4, 64, and 68 build this understanding through use of number line diagrams. 7.NS.2a calls for understanding of multiplication with rational numbers. Lesson 73 builds conceptual understanding of this concept through use of number line diagrams and mathematical reasoning.
	REQUIRED **3b)** ***Attention to Procedural Skill and Fluency:*** The	**No**	There is a lack of exercises where students demonstrate fluency for the grade level standards

[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).
[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
	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.		(7.EE.B.4). Only Lessons 41 and 96 focus on this standard. Additional practice amounts to one or two practice problems included in Lessons 42, 43, 44, 45, 46, 97, 99, 100, and 101.
	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.	**No**	The content provides ample opportunity for the students and teachers to engage in applications that focus on the material being taught in each lesson. The material also provide multi-step problems throughout the material. However, because only 58% of the lesson taught are not grade level the applications do not guarantee that the students will be spending enough engagement that is focused on the major work of the grade level. For example, in Lesson 21, problem 1 focuses on addition/subtraction with simple fractions (4.NF.3d). Problem 2 focuses on 3-digit by 1-digit division (4.OA.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, 7.RP.2b identifying the constant of proportionality (unit rate) in tables graphs, equations, diagrams and verbal descriptions of proportional relationships is not addressed conceptually or procedurally in the materials. 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
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.	**No**	A document that lists the mathematical practices was provided but they are not mentioned within the materials. When the essence of a mathematical practice is used in the materials, it is used in an isolated manner that is not connected to the lesson content but to a lesson warm up. In addition, MP.3 and MP.4 are not addressed within the lessons at all.
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.

[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)
[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).

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.[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-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.[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	**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.

[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).
[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).

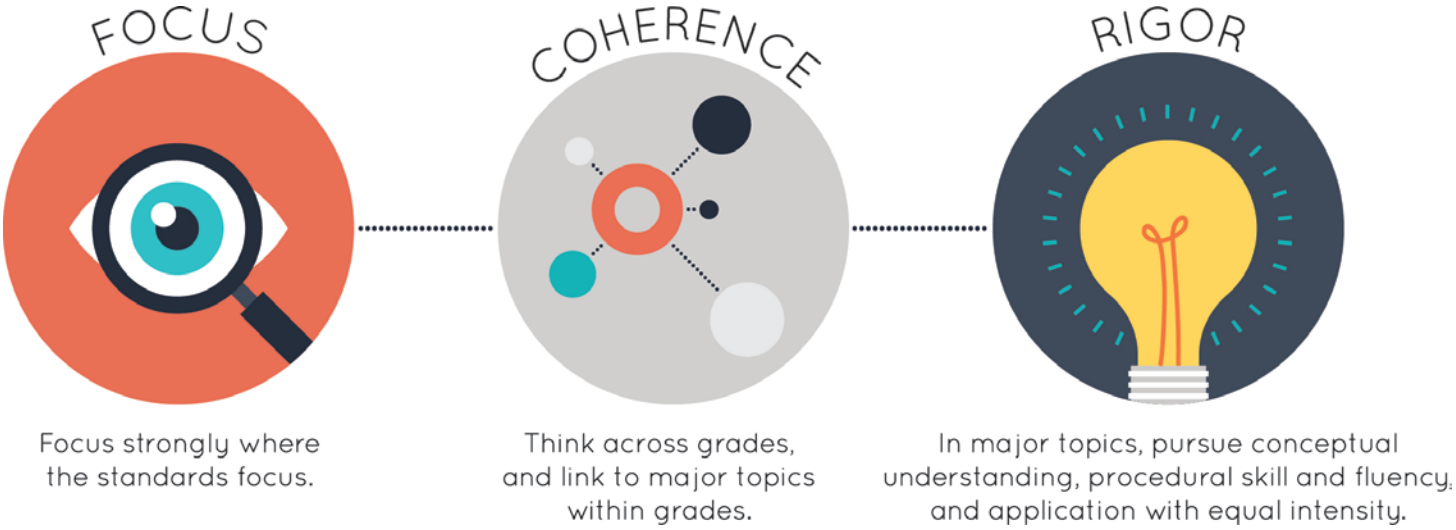
CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
tools they need to meet the expectations of the Standards. [26] ☐ Yes ☐ No	**7b)** There are separate teacher materials that support and reward teacher study including, but not limited to: discussion 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.
	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.

[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
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**	Materials are not aligned to CCSS and therefore devote a significant amount of time to non-grade standards throughout. Approximately 58% (70 out of 120 lessons) are on grade level. The remaining lessons are either below or above grade level.
	2. Consistent, Coherent Content	**No**	When grade level material was taught, the supporting content did not connect to the major content in focused and coherent ways.
	3. Rigor and Balance	**No**	There is a lack of exercises where students demonstrate fluency for the grade level standards (7.EE.B.4). In the curriculum, there are only two lessons that focus on this standard and 1-2 problems in 9 other lessons.
	4. Focus and Coherence via Practice Standards	**No**	Materials do not address the major work of the grade level and are not aligned to Common Core State Standards but to the National Council of Teachers of Mathematics.
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 Saxon Math Course 3** Grade: **8**

Publisher: **Houghton Mifflin Harcourt** Copyright: **2012**

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.	**No**	Materials are not aligned to CCSS and therefore devote a significant amount of time to work outside of 8th grade. Approximately 54% (65 out of 120 lessons) are on grade level. The remaining lessons are either below or above grade level. For example, Lesson 118 on sine, cosine, and tangent are high school geometry and trigonometry standards. While all 10 lessons in section 1 are focused on review skills, such as one-step word problems with the 4 operations (4.OA.3). In section 2, Lesson 13 focuses on addition and subtraction of fractions, including mixed numbers (5.NF.1 and 5.NF.2).
	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]	**No**	A significant amount of time is spent on review material throughout the lessons. If testing focuses on the material being taught, than it is outside of the grade level for many of the chapters. Unfortunately, access to the test bank was not provided by the publisher and could not be reviewed. While access to the entire test bank was not provided by the publisher, a portion of each test was provided. Of the problems provided, they aligned with the material in the lessons, which were mostly outside grade-level content. For example, Cumulative Test 19A, Section 10, page 669A, students are assessed on quadratic formula (HSA.REI.B.4) and binomial multiplication (HSA.APR.C.5).
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.[30]	**No**	When grade level material was taught, the supporting content did not connect to the major content in focused and coherent ways. For example, Lesson 71 focuses on parallelograms while the following lesson (72) is on multiplying fractions

[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
materials are coherent and consistent with the content in the Standards. ☐ Yes ☒ No			and mixed numbers. Other examples include: Lesson 30 focuses on 8.NS.1, supporting content, and has no connection to the major work of the grade. Lesson 16 connects irrational numbers (8.NS.1-2) to 8.EE.4 by having students evaluate the square roots of small perfect squares as a strategy to place irrational numbers on a number line.
	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**	Most lessons focus on an isolated skill and, therefore, do not serve to connect clusters or domains in the grade. Some lessons are broken into two disconnected parts. For example, Lesson 44 has two parts, the first on solving proportions using cross products (7.RP.2), and the second on slope of a line (8.EE.5). While understanding the connection of proportional relationships and lines is important, the text makes no attempt to connect them for students. Lesson 63 has two parts which have no natural or important mathematical, the first on on rational numbers, non-terminating decimals, and percents; and the second on fractions with negative exponents.
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]	**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**	When grade level content is being addressed, materials develop conceptual understanding of the material being taught. For example, Section 5, Lesson 44 focuses on conceptual understanding of using similar triangles to define the slope of a line (8.EE.6).
	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	**No**	The content contains problems to build students' procedural skill in the grade level standards. For example, students need to build procedural skill with performing operations with numbers expressed in scientific notation (8.EE.4). In section 5, there are 9 problems relating to this standard spread across

[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
☐ Yes ☒ No	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.		the lessons. In section 6, there are 19 problems relating to this standard spread across the lessons. The warm up activities in Lessons 76-80 focus on performing operations with numbers expressed in scientific notation. However, for 8.G.6, 8.G.7, 8.G.8, and 8.G.9, there are an inadequate number of problems for students to build procedural skills.
	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.	**No**	The content provides opportunity for the students and teachers to engage in applications that focus on the material being taught in each lesson. However, because only 54% of the lesson taught are grade level appropriate applications this does not guarantee that the students will be spending enough engagement that is focused on the major work of the grade level. For example, CCSS 8.EE.4, perform operations using scientific notation, there are only approximately 15 application problems in Section 3, Lesson 28 and Section 6, Lessons 51 and 57 for practicing addition, subtraction, multiplication and division of numbers written in scientific notation and most of those focus on writing numbers in scientific notation.
	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, Investigation 2 (Section 2) focuses on the proof of the Pythagorean Theorem (CCSS 8.G.6). During the lesson, there are practice problems that focus on all three aspects of rigor (analyze, model and explain) however the standard only requires conceptual understanding. 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
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.[33] ☐ 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.	**No**	A document that lists the mathematical practices was provided but they are not mentioned within the materials. When the essence of a mathematical practice is used in the materials, it is used in an isolated manner that is not connected to the lesson content but to a lesson warm up. In addition, MP.3 and MP.4 are not addressed within the lessons at all.
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.[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.

[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)
[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).

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.[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 thoroughly to places in the Standards that explicitly set expectations for multi-step problems.[38]	**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	**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.

[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).
[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).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
tools they need to meet the expectations of the Standards. [39] ☐ Yes ☐ No	**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.
	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.

[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
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**	Materials are not aligned to CCSS and therefore devote a significant amount of time to non-grade standards throughout. Approximately 54% (65 out of 120 lessons) are on grade level. The remaining lessons are either below or above grade level.
	2. Consistent, Coherent Content	**No**	The content provides ample opportunity for the students and teachers to engage in applications that focus on the material being taught in each lesson. However, because only 54% of the lesson taught are grade level appropriate applications this does not guarantee that the students will be spending enough engagement that is focused on the major work of the grade level.
	3. Rigor and Balance	**No**	Due to the fact that a majority of the material is not grade level, the three aspects of rigor cannot be treated as balanced. The majority of the content is non grade level and therefore students are not working on rigor based on their grade level standards.
	4. Focus and Coherence via Practice Standards	**No**	Materials do not address the major work of the grade level and are not aligned to Common Core State Standards but to the National Council of Teachers of Mathematics. When the essence of a mathematical practice is used in the materials, it is used in isolate manner that is not connected to the lesson content but to a lesson warm up. In addition, MP.3 and MP.4 are not addressed within the lessons at all.
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.