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: **Carnegie Math** Grade: **6-8**

Publisher: **Carnegie Learning** Copyright: **2011**

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

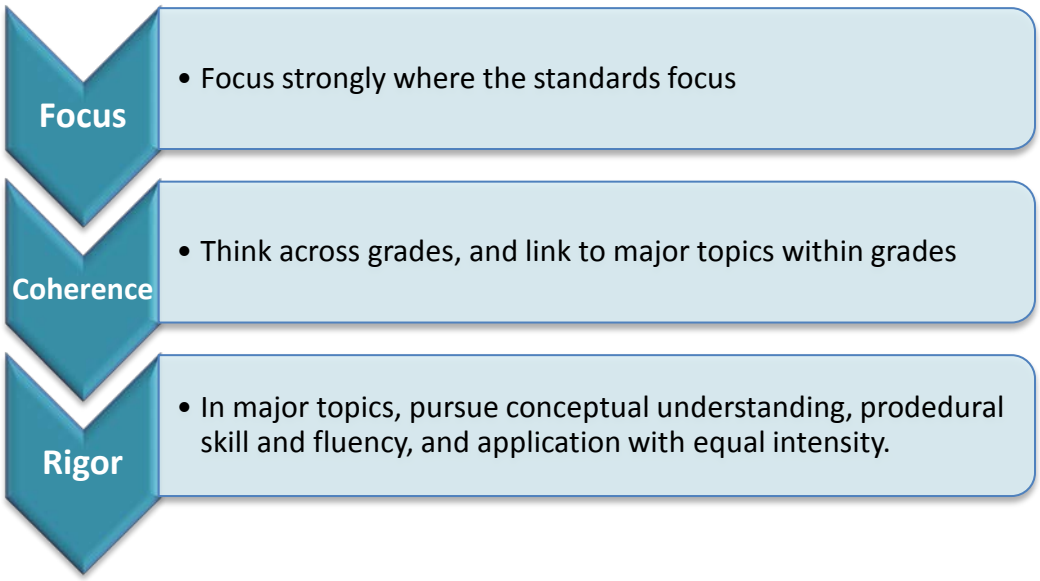
The following two indicators may be impacted:

- 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 in Grades 6 and 8 because the materials devote the majority of class time (67% and 76%, respectively) to the major work of the grade and spend minimal time outside the appropriate grade level. This program currently is reviewed as No for this criterion in Grade 7 because only 54% of the lessons are devoted to the major work of the grade.	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. 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 all supporting content is addressed in separate lessons from major content.	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.

Strong mathematics instruction contains the following elements:



Title: **Carnegie Math** **Grade:** **6-8**

Publisher: **Carnegie Learning** **Copyright:** **2011**

Overall Rating: **Tier III, Not Representing Quality**

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

STRONG	WEAK
Rigor and Balance (Non-Negotiable)	Consistent, Coherent Content (Non-Negotiable)
Focus on Major Work (Non-Negotiable)*	Practice-Content Connections (Non-Negotiable)
*Weak at Grade 7	

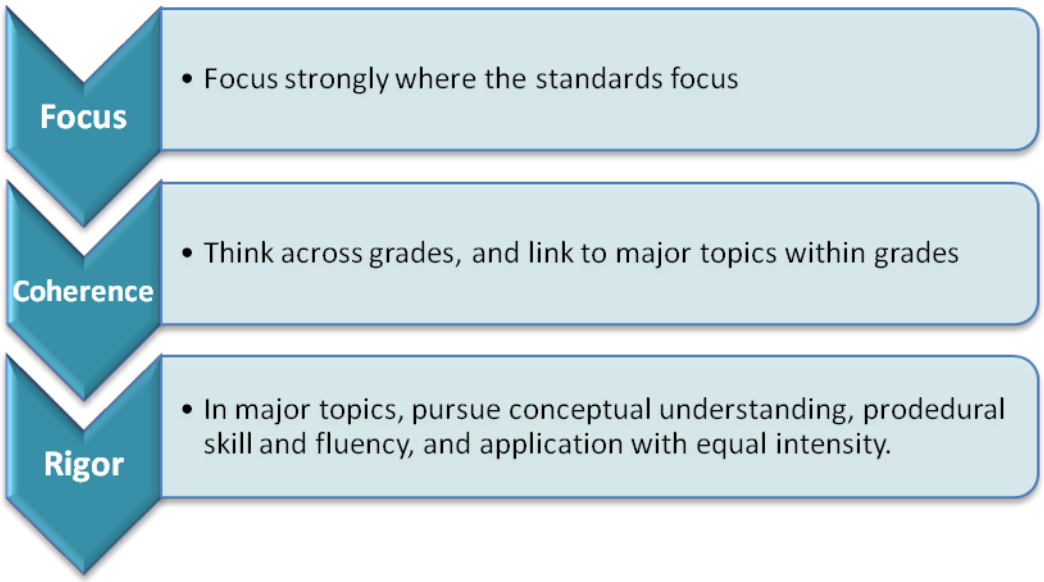
Each set of submitted materials was evaluated for alignment with the standards beginning with a review of the indicators for the non-negotiable criteria. If those criteria were met, a review of the other criteria ensued.

Tier 1 ratings received a "Yes" for all Criteria 1 – 7.
Tier 2 ratings received a "Yes" for all non-negotiable criteria (Criteria 1 – 4), but at least one "No" for the remaining criteria.
Tier 3 ratings received a "No" 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: Carnegie Math **Grade:** 6

Publisher: Carnegie Learning **Copyright:** 2011

Overall Rating: Tier III, Not Representing Quality

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

STRONG	WEAK
Focus on Major Work (Non-Negotiable)	Consistent, Coherent Content (Non-Negotiable)
Rigor and Balance (Non-Negotiable)	Practice-Content Connections (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 (Y/N)	JUSTIFICATION/ COMMENTS
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria to move to tier 2.			
Non-Negotiable 1. FOCUS ON MAJOR WORK[1]: Students and teachers using the materials as designed devote the large majority[2] of time in each grade K–8 to the major work of the grade. ☐ Yes ☐ No	**REQUIRED** **1a)** Materials should devote at least 65% and up to approximately 85% of class time to the major work of each grade with Grades K–2 nearer the upper end of that range, i.e., 85%. Each grade must meet the criterion; do not average across two or more grades.	**Yes**	Approximately 67% of the lessons are devoted to the major work of the grade.
	REQUIRED **1b)** In any one grade, aligned materials should spend minimal time on content outside of the appropriate grade levels. 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 in which they are introduced in the Standards.[3]	**Yes**	The materials presented focus mainly on Grade 6. Some lessons do address standards from prior grades, but these lessons are minimal and most are clearly labeled below grade-level. For example, Lesson 4.3 addresses 4.NF.6, but the lesson is clearly labeled below grade-level.
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**	All supporting content is addressed in separate lessons from major content. For example, Section 13.1 is linked only to standard 6.G.A.4, supporting content.
	REQUIRED **2b)** Materials including problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important.[5]	**Yes**	Connections between domains and clusters are made. For example, Lesson 9.7 addresses 6.RP.A.3b, 6.RP.A.3c, 6.NS.C.6c, 6.EE.B.5, 6.EE.B.6, 6.EE.B.7, and 6.EE.C.9.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION I (continued): NON-NEGOTIABLE CRITERIA			
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.[6] ☐ 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 questions.	**Yes**	Conceptual understanding is developed in lessons focused on standards which explicitly call for conceptual understanding. For example, Lesson 5.2 targets 6.RP.A.1. The problems in this lesson support conceptual understanding as required by this standard.
	REQUIRED **3b)** ***Attention to Procedural Skill and Fluency:*** Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials help students make steady progress throughout the year toward fluent computation. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	**Yes**	Only 6 lessons specifically target fluency standards 6.NS.B.2 and 6.NS.B.3. These lessons are included in Chapters 4 and 7. Some problems are included in other chapters which require students to perform operations with multi-digit decimals (6.NS.B.3), but these problems are not labeled and more are needed.
	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 including ample practice with single-step and multi-step contextual problems that develop the mathematics of the grade, afford opportunities for practice, and engage students in problem solving.	**Yes**	The materials are designed so that the teachers and students spend a substantial amount of time engaging in meaningful activities that involve application.
	REQUIRED **3d)** ***Balance:*** The three aspects of rigor are not always treated together, and are not always treated separately.	**Yes**	Some problems address the three aspects of rigor together, and some problems address the aspects separately.
Non-Negotiable 4. PRACTICE-CONTENT CONNECTIONS: Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.[7, 8]	**REQUIRED** **4a)** The materials connect the Standards for Mathematical Practice and the Standards for Mathematical Content.	**No**	The Standards for Mathematical Practices are not listed in lessons in the teacher or student text. The "Correlation to the Common Core State Standards" document states "The Common Core Standards for Mathematical Practice are embedded throughout the Grade 6 course and can be observed through the Standards for Mathematical Content citations as well as the highlighted pages below" and

[6] Refer also to criterion #4 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[7] Refer also to criterion #7 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[8] All items do not need to align to a Mathematical Practice. In addition, there is no requirement to have an equal balance among the Mathematical Practices in any set of materials or grade.

☐ Yes ☐ No			provides 3 examples for each Standard for Mathematical Practice; however, the listed samples are page numbers in the book. None of these examples include explanations of how they exemplify the stated Mathematical Practice.
	REQUIRED **4b)** The developer provides a description or analysis, aimed at evaluators, which shows how materials meaningfully connect the Standards for Mathematical Practice to the Standards for Mathematical Content within each applicable grade.	**No**	Mathematical Practices are discussed in the Teacher's Implementation Guide. This discussion, however, focuses more on features of the textbook that connect to the math practices instead of explaining the connections between the Standards for Mathematical Content and Standards for Mathematical Practice at Grade 6.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
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 within grades (across domains and clusters) and across grades by staying consistent with the progressions in the standards. ☐ Yes ☐ No	**REQUIRED** **5a)** Materials base content progressions on the grade-by-grade progressions in the Standards. [9]		Not reviewed. Non-negotiable criteria were not met.
	REQUIRED **5b)** 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 reviewed. Non-negotiable criteria were not met.
	REQUIRED **5c)** 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 reviewed. Non-negotiable criteria were not met.
	5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings.[10]		Not reviewed. Non-negotiable criteria were not met.
	5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives. [11]		Not reviewed. Non-negotiable criteria were not met.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION II (continued): ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
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	**REQUIRED** **6a)** Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.[11] The analysis for evaluators explains how the full meaning of each practice standard has been attended to in the materials.		Not reviewed. Non-negotiable criteria were not met.
	REQUIRED **6b)** Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of other concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3).[12]		Not reviewed. Non-negotiable criteria were not met.
	REQUIRED **6c)** 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 reviewed. Non-negotiable criteria were not met.
	6d) Materials explicitly attend to the specialized language of mathematics.[12]		Not reviewed. Non-negotiable criteria were not met.

[11] Refer also to criterion #9 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[12] Refer also to criterion #10 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

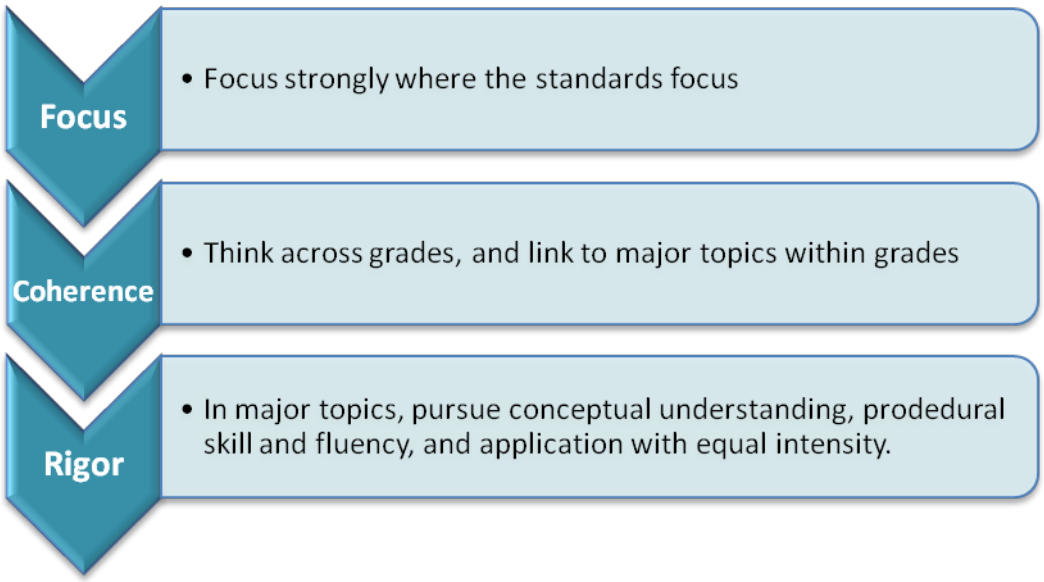
CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION II (continued): ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
Additional Criterion 7. INDICATORS OF QUALITY: Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards. ☐ Yes ☐ No	**REQUIRED** **7a)** 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 reviewed. Non-negotiable criteria were not met.
	REQUIRED **7b)** Design of assignments is not haphazard: exercises are given in intentional sequences.		Not reviewed. Non-negotiable criteria were not met.
	REQUIRED **7c)** 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 reviewed. Non-negotiable criteria were not met.
	REQUIRED **7d)** 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 reviewed. Non-negotiable criteria were not met.
	REQUIRED **7e)** 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 reviewed. Non-negotiable criteria were not met.
	7f) There is variety in the pacing and grain size of content coverage.[13]		Not reviewed. Non-negotiable criteria were not met.
	7g) Lessons are thoughtfully structured and support the teacher in leading the class through the learning paths at hand, with active participation by all students in their own learning and in the learning of their classmates.		Not reviewed. Non-negotiable criteria were not met.
	7h) Manipulatives are faithful representations of the mathematical objects they represent and are connected to written methods.		Not reviewed. Non-negotiable criteria were not met.

[13] Refer also to page 18 in the K – 8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

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.

FINAL EVALUATION			
Compile the results for Sections I and II to make a final decision for the material under review.			
Section	**Criteria**	**Y/N**	**Final Justification/Comments**
I: Non-Negotiables	1. Focus on Major Work	**Yes**	Approximately 67% of the lessons are devoted to the major work of the grade.
	2. Consistent, Coherent Content	**No**	All supporting content is addressed in separate lessons from major content.
	3. Rigor and Balance	**Yes**	The materials address conceptual understanding, procedural skill and fluency, and application. More materials addressing fluency standards are needed.
	4. Practice-Content Connections	**No**	The Standards for Mathematical Practice are not listed in lessons in the teacher or student text.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content		Not reviewed. Non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice		Not reviewed. Non-negotiable criteria were not met.
	7. Indicators of Quality		Not reviewed. Non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL: <u>Tier III, Not Representing Quality</u>			

Strong mathematics instruction contains the following elements:



Title: Carnegie Math **Grade: 7**

Publisher: Carnegie Learning **Copyright:** 2011

Overall Rating: Tier III, Not Representing Quality

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

STRONG	WEAK
Rigor and Balance (Non-Negotiable)	Focus on Major Work (Non-Negotiable)
	Consistent, Coherent Content (Non-Negotiable)
	Practice-Content Connections (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 (Y/N)	JUSTIFICATION/ COMMENTS
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria to move to tier 2.			
Non-Negotiable 1. FOCUS ON MAJOR WORK[1]: Students and teachers using the materials as designed devote the large majority[2] of time in each grade K–8 to the major work of the grade. ☐ Yes ☐ No	**REQUIRED** **1a)** Materials should devote at least 65% and up to approximately 85% of class time to the major work of each grade with Grades K–2 nearer the upper end of that range, i.e., 85%. Each grade must meet the criterion; do not average across two or more grades.	**No**	Approximately 54% of the lessons are devoted to the major work of the grade.
	REQUIRED **1b)** In any one grade, aligned materials should spend minimal time on content outside of the appropriate grade levels. 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 in which they are introduced in the Standards.[3]	**Yes**	The materials presented focus mainly on Grade 7. Some lessons do address standards from prior grades, but these lessons are minimal and include grade-level standards. For example, Lesson 1.1 addresses both 6.RP.A.1 and 7.RP.A.1.
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**	Supporting content is addressed in separate lessons from major content. For example, Section 14.1 is linked only to standards 7.SP.A.1 and 7.SP.A.2, supporting content.
	REQUIRED **2b)** Materials including problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important.[5]	**Yes**	Some connections between domains and clusters are made, but more are needed. For example, Lesson 6.2 addresses7.NS.A.3, 7.EE.A.1, and 7.EE.A.2.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION I (continued): NON-NEGOTIABLE CRITERIA			
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.[6] ☐ 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 questions.	**Yes**	Conceptual understanding is developed in lessons focused on standards which explicitly call for conceptual understanding. For example, Lesson 6.2 targets 7.EE.A.2. The problems in this lesson support conceptual understanding as required by this standard.
	REQUIRED **3b)** ***Attention to Procedural Skill and Fluency:*** Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials help students make steady progress throughout the year toward fluent computation. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	**Yes**	Approximately 19 lessons specifically target fluency standards 7.EE.3, 7.EE.4, and 7.NS.1.
	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 including ample practice with single-step and multi-step contextual problems that develop the mathematics of the grade, afford opportunities for practice, and engage students in problem solving.	**Yes**	The materials are designed so that the teachers and students spend a substantial amount of time engaging in meaningful activities that involve application.
	REQUIRED **3d)** ***Balance:*** The three aspects of rigor are not always treated together, and are not always treated separately.	**Yes**	Some problems address the three aspects of rigor together, and some problems address the aspects separately.
Non-Negotiable 4. PRACTICE-CONTENT CONNECTIONS: Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.[7, 8]	**REQUIRED** **4a)** The materials connect the Standards for Mathematical Practice and the Standards for Mathematical Content.	**No**	The Standards for Mathematical Practices are not listed in lessons in the teacher or student text. The "Correlation to the Common Core State Standards" document states "The Common Core Standards for Mathematical Practice are embedded throughout the Grade 7 course and can be observed through the Standards for Mathematical Content citations as well as the highlighted pages below" and

[6] Refer also to criterion #4 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[7] Refer also to criterion #7 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[8] All items do not need to align to a Mathematical Practice. In addition, there is no requirement to have an equal balance among the Mathematical Practices in any set of materials or grade.

☐ Yes ☒ No			provides 3 examples for each Standard for Mathematical Practice; however, the listed samples are page numbers in the book. None of these examples include explanations of how they exemplify the stated Mathematical Practice.
	REQUIRED **4b)** The developer provides a description or analysis, aimed at evaluators, which shows how materials meaningfully connect the Standards for Mathematical Practice to the Standards for Mathematical Content within each applicable grade.	**No**	Mathematical Practices are discussed in the Teacher's Implementation Guide. This discussion, however, focuses more on features of the textbook that connect to the math practices instead of explaining the connections between the Standards for Mathematical Content and Standards for Mathematical Practice at Grade 7.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
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 within grades (across domains and clusters) and across grades by staying consistent with the progressions in the standards. ☐ Yes ☐ No	**REQUIRED** **5a)** Materials base content progressions on the grade-by-grade progressions in the Standards. [9]		Not evaluated. Non-negotiable criteria were not met.
	REQUIRED **5b)** 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. Non-negotiable criteria were not met.
	REQUIRED **5c)** 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. Non-negotiable criteria were not met.
	5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings.[10]		Not evaluated. 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. Non-negotiable criteria were not met.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION II (continued): ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
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	**REQUIRED** **6a)** Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.[11] The analysis for evaluators explains how the full meaning of each practice standard has been attended to in the materials.		Not evaluated. Non-negotiable criteria were not met.
	REQUIRED **6b)** Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of other concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3).[12]		Not evaluated. Non-negotiable criteria were not met.
	REQUIRED **6c)** 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. Non-negotiable criteria were not met.
	6d) Materials explicitly attend to the specialized language of mathematics.[12]		Not evaluated. Non-negotiable criteria were not met.

[11] Refer also to criterion #9 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[12] Refer also to criterion #10 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

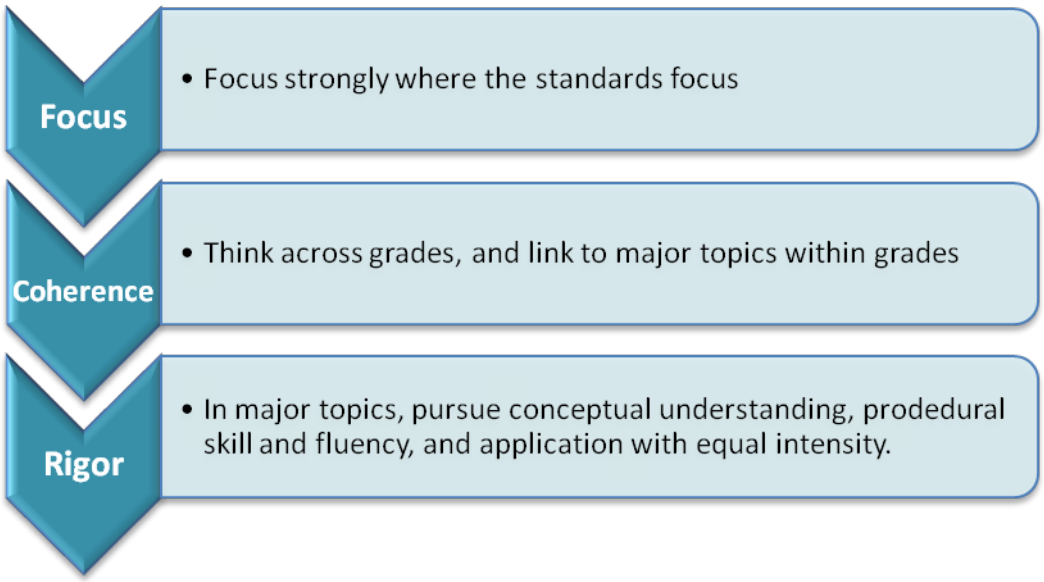
CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION II (continued): ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
Additional Criterion 7. INDICATORS OF QUALITY: Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards. ☐ Yes ☐ No	**REQUIRED** **7a)** 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. Non-negotiable criteria were not met.
	REQUIRED **7b)** Design of assignments is not haphazard: exercises are given in intentional sequences.		Not evaluated. Non-negotiable criteria were not met.
	REQUIRED **7c)** 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. Non-negotiable criteria were not met.
	REQUIRED **7d)** 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. Non-negotiable criteria were not met.
	REQUIRED **7e)** 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. Non-negotiable criteria were not met.
	7f) There is variety in the pacing and grain size of content coverage.[13]		Not evaluated. Non-negotiable criteria were not met.
	7g) Lessons are thoughtfully structured and support the teacher in leading the class through the learning paths at hand, with active participation by all students in their own learning and in the learning of their classmates.		Not evaluated. Non-negotiable criteria were not met.
	7h) Manipulatives are faithful representations of the mathematical objects they represent and are connected to written methods.		Not evaluated. Non-negotiable criteria were not met.

[13] Refer also to page 18 in the K – 8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

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.

FINAL EVALUATION			
Compile the results for Sections I and II to make a final decision for the material under review.			
Section	**Criteria**	**Y/N**	**Final Justification/Comments**
I: Non-Negotiables	1. Focus on Major Work	**No**	Approximately 54% of the lessons are devoted to the major work of the grade.
	2. Consistent, Coherent Content	**No**	Supporting content is addressed in separate lessons from major content.
	3. Rigor and Balance	**Yes**	The materials support conceptual understanding, procedural skill and fluency, and application with equal intensity.
	4. Practice-Content Connections	**No**	The Standards for Mathematical Practice are not listed in lessons in the teacher or student text.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content		Not evaluated. Non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice		Not evaluated. Non-negotiable criteria were not met.
	7. Indicators of Quality		Not evaluated. Non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL: <u>Tier III, Not Representing Quality</u>			

Strong mathematics instruction contains the following elements:



Title: Carnegie Math **Grade: 8**

Publisher: Carnegie Learning **Copyright:** 2011

Overall Rating: Tier III, Not Representing Quality

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

STRONG	WEAK
Focus on Major Work (Non-Negotiable)	Consistent, Coherent Content (Non-Negotiable)
Rigor and Balance (Non-Negotiable)	Practice-Content Connections (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 (Y/N)	JUSTIFICATION/ COMMENTS
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria to move to tier 2.			
Non-Negotiable 1. FOCUS ON MAJOR WORK[1]: Students and teachers using the materials as designed devote the large majority[2] of time in each grade K–8 to the major work of the grade. ☐ Yes ☐ No	**REQUIRED** **1a)** Materials should devote at least 65% and up to approximately 85% of class time to the major work of each grade with Grades K–2 nearer the upper end of that range, i.e., 85%. Each grade must meet the criterion; do not average across two or more grades.	**Yes**	Approximately 76% of the lessons are devoted to the major work of the grade.
	REQUIRED **1b)** In any one grade, aligned materials should spend minimal time on content outside of the appropriate grade levels. 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 in which they are introduced in the Standards.[3]	**Yes**	The materials presented focus mainly on Grade 8. Some lessons do address standards from prior grades, but these lessons are minimal and most are clearly labeled below grade-level. For example, Lesson5.1 addresses 7.NS.3, but the lesson is clearly labeled below grade-level.
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**	Most supporting content is addressed in separate lessons from major content. For example, Chapters 15, 16, and 17 only address supporting content.
	REQUIRED **2b)** Materials including problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important.[5]	**Yes**	Connections between domains and clusters are made. For example, Lesson 3.1 addresses 8.NS.A.2, 8.EE.A.2, 8.G.B.6, and 8.G.B.7.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION I (continued): NON-NEGOTIABLE CRITERIA			
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.[6] ■ 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 questions.	**Yes**	Conceptual understanding is developed in lessons focused on standards which explicitly call for conceptual understanding. For example, Lesson 6.1 targets 8.G.B.6 and 8.G.B.7. The problems in this lesson support conceptual understanding as required by this standard.
	REQUIRED **3b)** ***Attention to Procedural Skill and Fluency:*** Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials help students make steady progress throughout the year toward fluent computation. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	**Yes**	Fluency standards are integrated in lessons 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 including ample practice with single-step and multi-step contextual problems that develop the mathematics of the grade, afford opportunities for practice, and engage students in problem solving.	**Yes**	The materials are designed so that the teachers and students spend a substantial amount of time engaging in meaningful activities that involve application.
	REQUIRED **3d)** ***Balance:*** The three aspects of rigor are not always treated together, and are not always treated separately.	**Yes**	Some problems address the three aspects of rigor together, and some problems address the aspects separately.
Non-Negotiable 4. PRACTICE-CONTENT CONNECTIONS: Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.[7, 8]	**REQUIRED** **4a)** The materials connect the Standards for Mathematical Practice and the Standards for Mathematical Content.	**No**	The Standards for Mathematical Practices are not listed in lessons in the teacher or student text. The "Correlation to the Common Core State Standards" document states "The Common Core Standards for Mathematical Practice are embedded throughout the Grade 8 course and can be observed through the Standards for Mathematical Content citations as well as the highlighted pages below" and

[6] Refer also to criterion #4 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[7] Refer also to criterion #7 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[8] All items do not need to align to a Mathematical Practice. In addition, there is no requirement to have an equal balance among the Mathematical Practices in any set of materials or grade.

☐ Yes ☐ No			provides 3 examples for each Standard for Mathematical Practice; however, the listed samples are page numbers in the book. None of these examples include explanations of how they exemplify the stated Mathematical Practice.
	REQUIRED **4b)** The developer provides a description or analysis, aimed at evaluators, which shows how materials meaningfully connect the Standards for Mathematical Practice to the Standards for Mathematical Content within each applicable grade.	**No**	Mathematical Practices are discussed in the Teacher's Implementation Guide. This discussion, however, focuses more on features of the textbook that connect to the math practices instead of explaining the connections between the Standards for Mathematical Content and Standards for Mathematical Practice at Grade 8.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
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 within grades (across domains and clusters) and across grades by staying consistent with the progressions in the standards. ☐ Yes ☐ No	**REQUIRED** **5a)** Materials base content progressions on the grade-by-grade progressions in the Standards. [9]		Not evaluated. Non-negotiable criteria were not met.
	REQUIRED **5b)** 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. Non-negotiable criteria were not met.
	REQUIRED **5c)** 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. Non-negotiable criteria were not met.
	5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings.[10]		Not evaluated. 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. Non-negotiable criteria were not met.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION II (continued): ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
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	**REQUIRED** **6a)** Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.[11] The analysis for evaluators explains how the full meaning of each practice standard has been attended to in the materials.		Not evaluated. Non-negotiable criteria were not met.
	REQUIRED **6b)** Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of other concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3).[12]		Not evaluated. Non-negotiable criteria were not met.
	REQUIRED **6c)** 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. Non-negotiable criteria were not met.
	6d) Materials explicitly attend to the specialized language of mathematics.[12]		Not evaluated. Non-negotiable criteria were not met.

[11] Refer also to criterion #9 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[12] Refer also to criterion #10 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION II (continued): ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
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. ☐ Yes ☐ No	**REQUIRED** **7a)** 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. Non-negotiable criteria were not met.
	REQUIRED **7b)** Design of assignments is not haphazard: exercises are given in intentional sequences.		Not evaluated. Non-negotiable criteria were not met.
	REQUIRED **7c)** 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. Non-negotiable criteria were not met.
	REQUIRED **7d)** 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. Non-negotiable criteria were not met.
	REQUIRED **7e)** 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. Non-negotiable criteria were not met.
	7f) There is variety in the pacing and grain size of content coverage.[13]		Not evaluated. Non-negotiable criteria were not met.
	7g) Lessons are thoughtfully structured and support the teacher in leading the class through the learning paths at hand, with active participation by all students in their own learning and in the learning of their classmates.		Not evaluated. Non-negotiable criteria were not met.
	7h) Manipulatives are faithful representations of the mathematical objects they represent and are connected to written methods.		Not evaluated. Non-negotiable criteria were not met.

[13] Refer also to page 18 in the K – 8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

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FINAL EVALUATION			
Compile the results for Sections I and II to make a final decision for the material under review.			
Section	**Criteria**	**Y/N**	**Final Justification/Comments**
I: Non-Negotiables	1. Focus on Major Work	**Yes**	Approximately 76% of the lessons are devoted to the major work of the grade.
	2. Consistent, Coherent Content	**No**	Supporting content is addressed in separate lessons from major content.
	3. Rigor and Balance	**Yes**	The materials support conceptual understanding, procedural skill and fluency, and application with equal intensity.
	4. Practice-Content Connections	**No**	The Standards for Mathematical Practice are not listed in lessons in the teacher or student text.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content		Not evaluated. Non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice		Not evaluated. Non-negotiable criteria were not met.
	7. Indicators of Quality		Not evaluated. Non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL: <u>Tier III, Not Representing Quality</u>			