# 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: **HMD with Explorations in Core Math (Algebra 1, Geometry, Algebra 2)** Grade: **9-11**

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

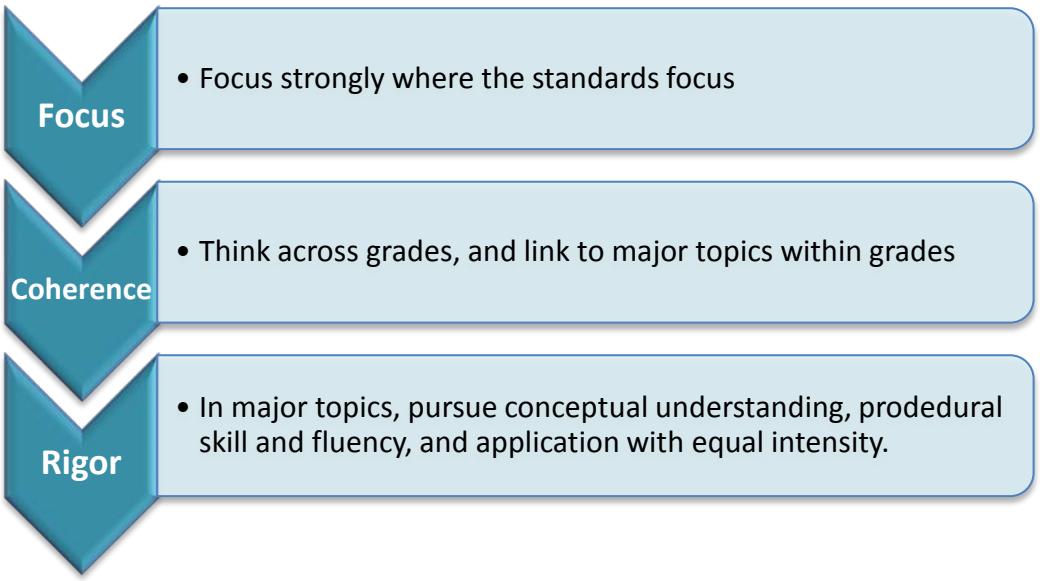
The following two indicators may be impacted:

- 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 "Yes" for these criteria because students spend the majority of their time completing work widely applicable as prerequisites for postsecondary education. Problems are at an appropriate level for high school and apply knowledge and skills from grades 6-8, but the materials devote the majority of class time 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. |
| Consistent, Coherent Content (Non-Negotiable) | This program currently is reviewed as "Yes" for these criteria in ninth grade because the materials were consistently found to connect the major content to the support content in meaningful ways.<br>This program currently is reviewed as "No" for these criteria in grades 10 and 11 because some lessons treat material as new knowledge without any connection to work from prior grades. | Make sure to review instructional materials in ninth grade focused on new supporting content (e.g., money in Grades K and 1) to ensure it supports the major work of the grade/course.<br><br>Since these materials received a "No" for this indicator in grades 10 and 11, the current weakness will likely remain and should be addressed by adjusting or supplementing with stronger programs. |

Strong mathematics instruction contains the following elements:




**Title: HMD with Explorations in Core Math (Algebra 1, Geometry, Algebra 2)** **Grade: 9-11**

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

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

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

| STRONG | WEAK |
|---|---|
| Focus on Major Work (Non-Negotiable) | Consistent, Coherent Content (Non-Negotiable)* |
| Practice-Content Connections (Non-Negotiable) | Rigor and Balance (Non-Negotiable) |
| | *rated strong in Alg.1 only |

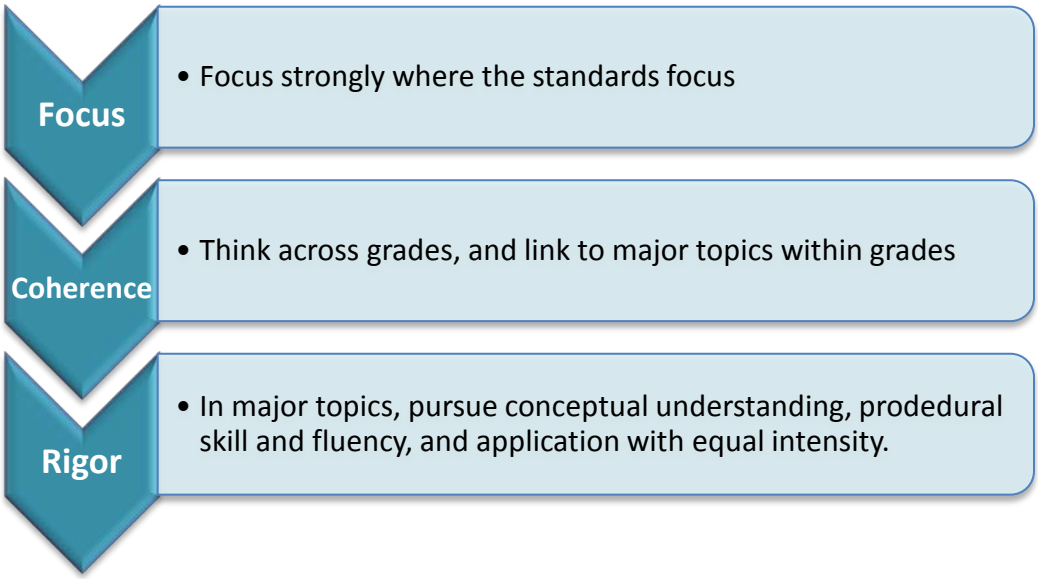
Each set of submitted materials was evaluated for alignment with the standards beginning with a review of the indicators for the non-negotiable criteria. If those criteria were met, a review of the other criteria ensued.

***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:

Algebra 1 (Tier 3) Geometry (Tier3) Algebra 2 (Tier 3)

Strong mathematics instruction contains the following elements:




**Title:** HMD Algebra 1, with Explorations in Core Math **Grade:** 9

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

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

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

| STRONG | WEAK |
|---|---|
| Focus on Major Work (Non-Negotiable) | Rigor and Balance (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 IN HIGH SCHOOL:**<br>In any single course, students and teachers using the materials as designed spend the majority of their time developing knowledge and skills that are widely applicable as prerequisites for postsecondary education.[1, 2]<br>For courses that do not include Geometry standards, metrics 1a and 1b must be met. For courses including Geometry standards, all three of the metrics must be met.<br><br>☒ Yes ☐ No | **REQUIRED**<br>**1a)** In any single course, students spend at least 50% of their time on **Widely Applicable Prerequisites** for postsecondary education.[3] | **Yes** | Student work corresponds to standards written for high school math. Students spend the majority of their time completing work widely applicable as prerequisites for postsecondary education. Each lesson lists the standard(s) used in the teacher's edition and student edition. In the *Explorations in Core Math* workbook, a table of standards and the lessons addressed by each standard is shown per chapter. The workbook also unpacks the standards for each chapter by providing examples, vocabulary, and meaning for students and teachers. |
| | **REQUIRED**<br>**1b)** There are problems at a level of sophistication appropriate to high school (beyond mere review of middle school topics) that involve the application of knowledge and skills from grades 6-8 including[4]:<br>• Applying ratios and proportional relationships.<br>• Applying percentages and unit conversions, e.g., in the context of complicated measurement problems involving quantities with derived or compound units (such as mg/mL, kg/$m^3$, acre-feet, etc.).<br>• Applying basic function concepts, e.g., by interpreting the features of a graph in the context of an applied problem.<br>• Applying concepts and skills of geometric measurement e.g., when analyzing a diagram or schematic.<br>• Applying concepts and skills of basic statistics and probability (see 6–8.SP).<br>• Performing rational number arithmetic fluently. | **Yes** | Problems are at an appropriate level for high school and apply knowledge and skills from grades 6-8 (e.g., in 8th grade students are expected to create a scatter plot and sketch a line that can be used to represent data found in a scatter plot. 8th grade students should be able to estimate and make predictions based on their informal sketch of a line related to data in a scatter plot [8.SP.1-3]. In Chapter 4, students are to further expand on knowledge of scatter plots learned in 8th grade by creating a formal line of best fit and using the line of best fit to determine a correlation coefficient. (S.ID.6)) |
| | **REQUIRED (as applicable)**<br>**1c)** For courses that include standards from the Geometry conceptual category, student work in Geometry significantly involves applications/modeling as well as geometry applications that use algebra skills.[5] | **N/A** | |

[1] Refer also to criterion #1 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[2] If materials show time in both block and standard 'days,' choose either but remain consistent.
[3] For more information on the Widely Applicable Prerequisites, see Table 1 on Page 8 of the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[4] Information excerpted from Table 1 on Page 8 of the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[5] Since the Geometry category itself contains relatively fewer Widely Applicable Prerequisites, this criterion is important to help foster students' college and career readiness.

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Y/N) | JUSTIFICATION/ COMMENTS |
|---|---|---|---|
| **SECTION I (continued): NON-NEGOTIABLE CRITERIA** | | | |
| **Non-Negotiable 2. CONSISTENT, COHERENT CONTENT**<br>Each course's instructional materials are coherent and consistent with the content in the standards.[6]<br><br>■ Yes ☐ No | **REQUIRED**<br>**2a)** ***Giving 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. | **Yes** | Each chapter is introduced using a preview which details what material a student has seen, what material a student will see in the chapter, and how a student can apply the material beyond the course of Algebra 1. Most lessons provide cues to remind students and teachers of prior learning. |
| | **REQUIRED**<br>**2b)** ***Relating 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. | **Yes** | Lessons mention prior learning to introduce new topics (e.g., Lesson 6-1 on integer exponents states, *You have seen positive exponents).* |
| **Non-Negotiable 3. RIGOR AND BALANCE:**<br>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.[7]<br><br>☐ Yes ■ No | **REQUIRED**<br>**3a)** ***Attention to Conceptual Understanding:*** Materials develop conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings by amply featuring high-quality conceptual problems and questions. | **No** | The materials stress procedural skill over conceptual understanding. Although some activities are provided to aid with conceptual understanding, they are often separate from the lessons in the textbook (e.g., Lesson 6-5 is about multiplying polynomials. There are two pages before with a lab activity that explain how to use algebra tiles to model polynomial multiplication, but tiles are not used as a strategy in the lesson that follows). In the *Explorations in Core Math* workbook, the algebra tiles are used in the lesson; however, the eight pages of the lesson in that workbook cannot possibly be used in addition to the materials in the textbook and other associated resources and be finished in the 2 days indicated in the pacing guide (see page 388A of the textbook). |
| | **REQUIRED**<br>**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 higher grades, sufficient practice with algebraic operations is provided in order for students to meet all of the expectations set in the Standards as a whole. | **No** | Although most materials focus on procedure, they include mnemonics or tricks instead of focusing exclusively on principles of mathematics (e.g., Lesson 6-5, in both the textbook and the Explorations in Core Math workbook, FOIL is taught as a method of |

[6] Refer also to criterion #3 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[7] Refer also to criterion #2 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

| | | | |
|---|---|---|---|
| | | | multiplying binomials- including drawing a *FOIL face.* |
| | **REQUIRED**<br>**3c) *Attention to Applications:*** Materials are designed so that teachers and students spend sufficient time working with engaging applications/modeling. While modeling is a mathematical practice at every grade, it is more prominent and enhanced in high school with more elements of the modeling cycle present. | **Yes** | Materials attend thoroughly to those places in the content standards where expectations for multi-step and real-world problems are explicit. Most lessons contain examples of application problems associated with the content of the lesson to be modeled during instruction. Almost all lessons contain a section of practice application problems related to the material of that lesson. |
| | **REQUIRED**<br>**3d) *Balance:*** The three aspects of rigor are not always treated together, and are not always treated separately | **Yes** | The three aspects of rigor are treated together and separately. |

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Y/N) | JUSTIFICATION/ COMMENTS |
|---|---|---|---|
| **SECTION I (continued): NON-NEGOTIABLE CRITERIA** | | | |
| **Non-Negotiable 4. PRACTICE-CONTENT CONNECTIONS:** Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.[8]<br><br>■ Yes ☐ No | **REQUIRED**<br>**4a)** The materials connect the Standards for Mathematical Practice and the Standards for Mathematical Content. | **Yes** | Mathematical practices are listed in each lesson and problems are identified that exemplify mathematical practices. The mathematical practices are linked to the standards for mathematical content in the Explorations in Core Math teacher's workbook. |
| | **REQUIRED**<br>**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 course. | **Yes** | There are pages in the introduction to the textbook and workbook that address the math practices. These pages explain features of the textbook and workbook that are meant to align with the Standards for Mathematical Practice. More in-depth analysis with more examples would be helpful. For instance, the one example provided in the Explorations in Core Math workbook for Math Practice 7, Look for and make use of structure, is a page showing the FOIL method. |

[8] Refer also to criterion #5 in the High School 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: 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). Courses are designed based on the content in the standards.<br><br>☐ Yes ☐ No | **REQUIRED**<br>**5a)** Materials base courses on the content specified in the standards (Algebra I, Geometry, and Algebra II). [9] | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**5b)** Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a category, or two or more categories, in cases where these connections are natural and important. [10, 11] | | Not evaluated. Non-negotiable criteria were not met. |
| | **5c)** Materials include learning objectives that are visibly shaped by CCSSM cluster and domain headings.[10] | | Not evaluated. Non-negotiable criteria were not met. |
| | **5d)** Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives.[10] | | Not evaluated. 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.<br><br>☐ Yes ☐ No | **REQUIRED**<br>**6a)** Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard. [12] | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**6b)** Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of other concerning key course-level mathematics that is detailed in the content standards (cf. MP.3). [13] | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**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.[13] | | Not evaluated. Non-negotiable criteria were not met. |
| | **6d)** Materials explicitly attend to the specialized language of mathematics.[13] | | Not evaluated. Non-negotiable criteria were not met. |

[9] Refer also to criterion #3 in the HS Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[10] Refer also to criterion #4 in the HS Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[11] Refer to the standards for each course found in the Teacher Support Library.
[12] Refer also to criterion #7 in the HS Publishrs' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[13] Refer also to criterion #8 in the HS Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

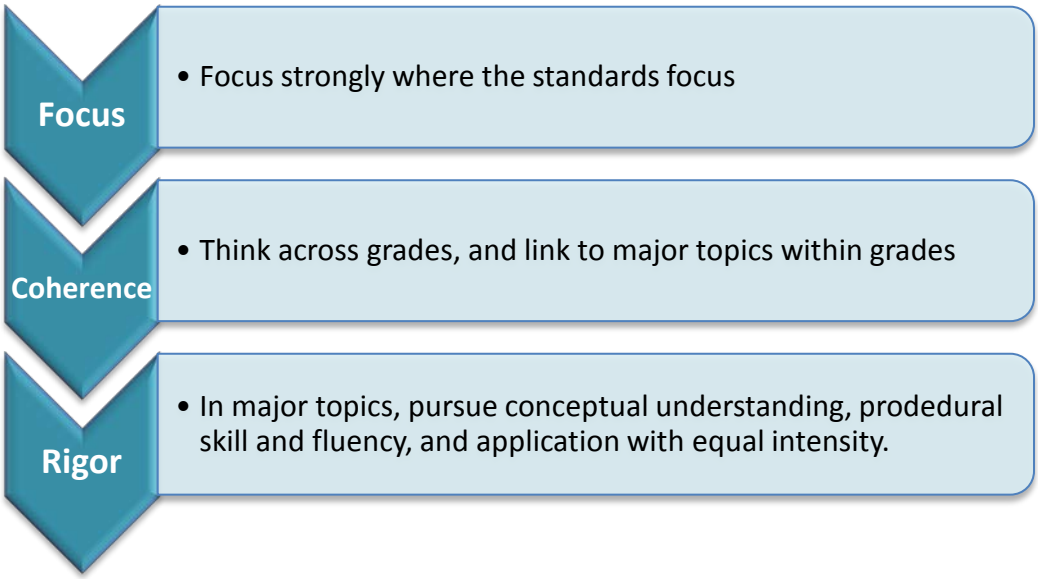
| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Y/N) | JUSTIFICATION/ COMMENTS |
|---|---|---|---|
| **SECTION II (continued): ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY** | | | |
| **Additional Criterion 7. INDICATORS OF QUALITY:**<br>Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the standards.<br><br>☐ Yes ☐ No | **REQUIRED**<br>**7a)** Materials support the uses of technology as called for in the standards. | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**7b)** 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**<br>**7c)** Design of assignments is not haphazard: exercises are given in intentional sequences. | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**7d)** 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**<br>**7e)** 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**<br>**7f)** 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. |
| | **7g)** There is variety in the pacing and grain size of content coverage. [14] | | Not evaluated. Non-negotiable criteria were not met. |
| | **7h)** 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. |
| | **7i)** Manipulatives are faithful representations of the mathematical objects they represent and are connected to written methods. | | Not evaluated. Non-negotiable criteria were not met. |

[14] Refer also to page 16 in the High School 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** | Problems are at an appropriate level for high school and appropriately apply knowledge and skills from grades 6-8. |
| | 2. Consistent, Coherent Content | **Yes** | Materials extend the work of prior grades and provide grade-level practice. |
| | 3. Rigor and Balance | **No** | Materials stress procedural skill over conceptual understanding. Although most materials focus on procedure, they include mnemonics or tricks instead of focusing exclusively on principles of mathematics. |
| | 4. Practice-Content Connections | **Yes** | More in-depth analysis with more examples would be helpful. |
| **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:** HMD Geometry, with Explorations in Core Math **Grade:** 10

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

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

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

| STRONG | WEAK |
|---|---|
| Focus on Major Work (Non-Negotiable) | Consistent, Coherent Content (Non-Negotiable) |
| Practice-Content Connections (Non-Negotiable) | Rigor and Balance (Non-Negotiable) |

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

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (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 IN HIGH SCHOOL:**<br>In any single course, students and teachers using the materials as designed spend the majority of their time developing knowledge and skills that are widely applicable as prerequisites for postsecondary education.[1, 2]<br>For courses that do not include Geometry standards, metrics 1a and 1b must be met. For courses including Geometry standards, all three of the metrics must be met.<br><br>☒ Yes ☐ No | **REQUIRED**<br>**1a)** In any single course, students spend at least 50% of their time on **Widely Applicable Prerequisites** for postsecondary education.[3] | **Yes** | Student work corresponds to standards written for high school math. Students spend the majority of their time completing work widely applicable as prerequisites for postsecondary education. |
| | **REQUIRED**<br>**1b)** There are problems at a level of sophistication appropriate to high school (beyond mere review of middle school topics) that involve the application of knowledge and skills from grades 6-8 including[4]:<br>• Applying ratios and proportional relationships.<br>• Applying percentages and unit conversions, e.g., in the context of complicated measurement problems involving quantities with derived or compound units (such as mg/mL, kg/$m^3$, acre-feet, etc.).<br>• Applying basic function concepts, e.g., by interpreting the features of a graph in the context of an applied problem.<br>• Applying concepts and skills of geometric measurement e.g., when analyzing a diagram or schematic.<br>• Applying concepts and skills of basic statistics and probability (see 6–8.SP).<br>• Performing rational number arithmetic fluently. | **Yes** | Some problems are at an appropriate level for high school and apply knowledge and skills from grades 6-8. |
| | **REQUIRED (as applicable)**<br>**1c)** For courses that include standards from the Geometry conceptual category, student work in Geometry significantly involves applications/modeling as well as geometry applications that use algebra skills.[5] | **Yes** | Student work in Geometry involves applications/modeling as well as applications that use algebra skills (e.g., in Chapter 1 students are asked to solve equations associated with segment and angle addition). |

[1] Refer also to criterion #1 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[2] If materials show time in both block and standard 'days,' choose either but remain consistent.
[3] For more information on the Widely Applicable Prerequisites, see Table 1 on Page 8 of the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[4] Information excerpted from Table 1 on Page 8 of the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[5] Since the Geometry category itself contains relatively fewer Widely Applicable Prerequisites, this criterion is important to help foster students' college and career readiness.

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Y/N) | JUSTIFICATION/ COMMENTS |
|---|---|---|---|
| **SECTION I (continued): NON-NEGOTIABLE CRITERIA** | | | |
| **Non-Negotiable 2. CONSISTENT, COHERENT CONTENT**<br>Each course's instructional materials are coherent and consistent with the content in the standards.[6]<br><br>☐ Yes ☐ No | **REQUIRED**<br>**2a)** ***Giving 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. | **No** | Standards indicated with (+) are included in this course (e.g., Section 8-5 focus on HSG-SRT.D.10(+)).<br><br>Some work from previous courses and grades is not identified clearly (e.g., Section 5-7 targets standard HSG-SRT.C.8 which calls for using the Pythagorean Theorem to solve right triangles in applied problems. Many of the problems in this lesson are not applied and would be more appropriate at the 8th grade level). |
| | **REQUIRED**<br>**2b)** ***Relating 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. | **No** | Many lessons treat material as new knowledge without any connection to work from prior grades (e.g., Lesson 3-2 discusses the angles formed when parallel lines are cut by a transversal, but it makes no connection to or mention of the prior student work with this concept during 8th grade). |
| **Non-Negotiable 3. RIGOR AND BALANCE:**<br>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.[7]<br><br>☐ Yes ☐ No | **REQUIRED**<br>**3a)** ***Attention to Conceptual Understanding:*** Materials develop conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings by amply featuring high-quality conceptual problems and questions. | **No** | Materials stress procedural skill over conceptual understanding (e.g., Lesson 8-2 targets HSG-G.SRT.C.6, a standard which requires a focus on conceptual understanding. There is one page before the lesson in the textbook with a lab activity that explores trigonometric ratios to develop conceptual understanding, but a majority of the exercises for this lesson focus on procedure). In the *Explorations in Core Math* workbook, more time is spent on developing conceptual understanding; however, the ten pages of the lesson cannot possibly be used in addition to the materials in the textbook and other associated resources and be finished in 1 day as indicated in the pacing guide (see page 530A of the textbook). |

[6] Refer also to criterion #3 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[7] Refer also to criterion #2 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

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| | **REQUIRED**<br>**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 higher grades, sufficient practice with algebraic operations is provided in order for students to meet all of the expectations set in the Standards as a whole. | **Yes** | Most materials focus on procedure. |
| | **REQUIRED**<br>**3c) *Attention to Applications:*** Materials are designed so that teachers and students spend sufficient time working with engaging applications/modeling. While modeling is a mathematical practice at every grade, it is more prominent and enhanced in high school with more elements of the modeling cycle present. | **Yes** | Materials attend to those places in the content standards where expectations for multi-step and real-world problems are explicit. Most lessons contain examples of application problems associated with the content of the lesson to be modeled during instruction. Almost all lessons contain a section of practice application problems related to the material of that lesson. |
| | **REQUIRED**<br>**3d) *Balance:*** The three aspects of rigor are not always treated together, and are not always treated separately | **Yes** | The three aspects of rigor are treated together and separately. |

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Y/N) | JUSTIFICATION/ COMMENTS |
|---|---|---|---|
| **SECTION I (continued): NON-NEGOTIABLE CRITERIA** | | | |
| **Non-Negotiable 4. PRACTICE-CONTENT CONNECTIONS:** Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.[8] ■ Yes ☐ No | **REQUIRED** **4a)** The materials connect the Standards for Mathematical Practice and the Standards for Mathematical Content. | **Yes** | Mathematical practices are listed in each lesson and problems are identified that exemplify mathematical practices. The problems identified, however, are not always good examples of the indicated math practices (e.g., on page 547, problem 56 is linked to Math Practice 5, *Use appropriate tools strategically*; however, the directions for this problem clearly state that students should use a centimeter ruler, protractor, and a calculator and tells them when to use each tool). The mathematical practices are linked to the standards for mathematical content in the *Explorations in Core Math* teacher's workbook. |
| | **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 course. | **Yes** | There are pages in the introduction to the textbook and workbook that address the math practices. These pages explain features of the textbook and workbook that are meant to align with the Standards for Mathematical Practice. More in-depth analysis with more examples would be helpful. |

[8] Refer also to criterion #5 in the High School 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: 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). Courses are designed based on the content in the standards.<br><br>☐ Yes ☐ No | **REQUIRED**<br>**5a)** Materials base courses on the content specified in the standards (Algebra I, Geometry, and Algebra II). [9] | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**5b)** Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a category, or two or more categories, in cases where these connections are natural and important. [10, 11] | | Not evaluated. Non-negotiable criteria were not met. |
| | **5c)** Materials include learning objectives that are visibly shaped by CCSSM cluster and domain headings.[10] | | Not evaluated. Non-negotiable criteria were not met. |
| | **5d)** Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives.[10] | | Not evaluated. 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.<br><br>☐ Yes ☐ No | **REQUIRED**<br>**6a)** Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard. [12] | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**6b)** Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of other concerning key course-level mathematics that is detailed in the content standards (cf. MP.3). [13] | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**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.[13] | | Not evaluated. Non-negotiable criteria were not met. |
| | **6d)** Materials explicitly attend to the specialized language of mathematics.[13] | | Not evaluated. Non-negotiable criteria were not met. |

[9] Refer also to criterion #3 in the HS Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[10] Refer also to criterion #4 in the HS Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[11] Refer to the standards for each course found in the Teacher Support Library.
[12] Refer also to criterion #7 in the HS Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[13] Refer also to criterion #8 in the HS Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

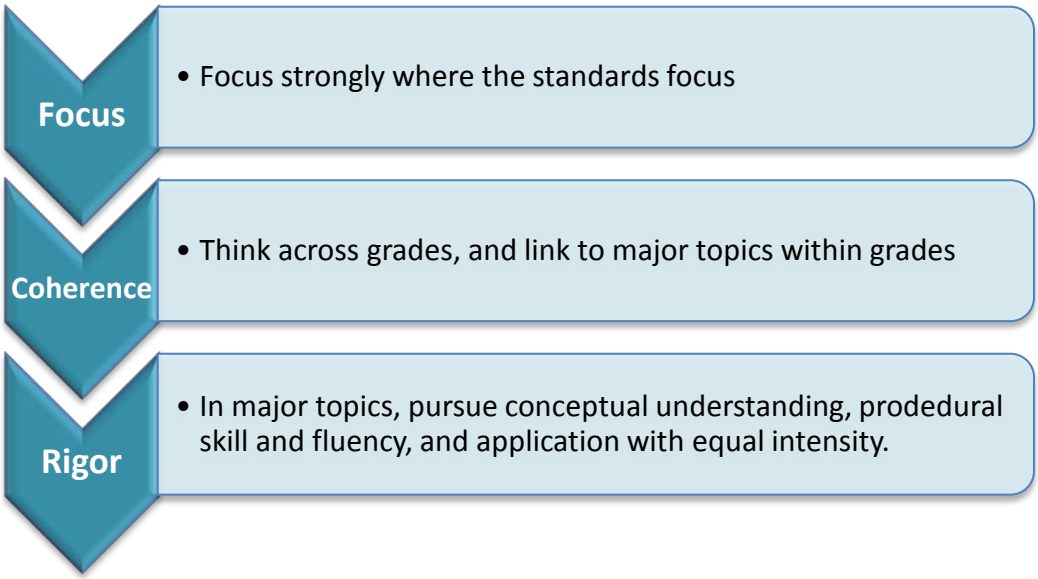
| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Y/N) | JUSTIFICATION/ COMMENTS |
|---|---|---|---|
| **SECTION II (continued): ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY** | | | |
| **Additional Criterion 7. INDICATORS OF QUALITY:**<br>Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the standards.<br><br>☐ Yes ☐ No | **REQUIRED**<br>**7a)** Materials support the uses of technology as called for in the standards. | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**7b)** 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**<br>**7c)** Design of assignments is not haphazard: exercises are given in intentional sequences. | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**7d)** 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**<br>**7e)** 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**<br>**7f)** 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. |
| | **7g)** There is variety in the pacing and grain size of content coverage. [14] | | Not evaluated. Non-negotiable criteria were not met. |
| | **7h)** 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. |
| | **7i)** Manipulatives are faithful representations of the mathematical objects they represent and are connected to written methods. | | Not evaluated. Non-negotiable criteria were not met. |

[14] Refer also to page 16 in the High School 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** | Problems are at an appropriate level for high school and appropriately apply knowledge and skills from grades 6-8. |
| | 2. Consistent, Coherent Content | **No** | Standards indicated with (+) are included in this course. The work included from prior grades is treated as new material. |
| | 3. Rigor and Balance | **No** | Most materials focus on procedure. |
| | 4. Practice-Content Connections | **Yes** | More in-depth analysis with more examples would be helpful. |
| **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:** HMD Algebra 2, with Explorations in Core Math **Grade:** 11

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

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

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

| STRONG | WEAK |
|---|---|
| Focus on Major Work (Non-Negotiable) | Consistent, Coherent Content (Non-Negotiable) |
| Practice-Content Connections (Non-Negotiable) | Rigor and Balance (Non-Negotiable) |

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

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (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 IN HIGH SCHOOL:**<br>In any single course, students and teachers using the materials as designed spend the majority of their time developing knowledge and skills that are widely applicable as prerequisites for postsecondary education.[1, 2]<br>For courses that do not include Geometry standards, metrics 1a and 1b must be met. For courses including Geometry standards, all three of the metrics must be met.<br><br>■ Yes ☐ No | **REQUIRED**<br>**1a)** In any single course, students spend at least 50% of their time on **Widely Applicable Prerequisites** for postsecondary education.[3] | **Yes** | Student work corresponds to standards written for high school math. Students spend the majority of their time completing work widely applicable as prerequisites for postsecondary education. Each lesson lists the standard(s) used in the teacher's edition and student edition. In the *Explorations in Core Math* workbook, a table of standards and the lessons addressed by each standard is shown per chapter. The workbook also unpacks the standards for each chapter by providing examples, vocabulary, and meaning for students and teachers. |
| | **REQUIRED**<br>**1b)** There are problems at a level of sophistication appropriate to high school (beyond mere review of middle school topics) that involve the application of knowledge and skills from grades 6-8 including[4]:<br>• Applying ratios and proportional relationships.<br>• Applying percentages and unit conversions, e.g., in the context of complicated measurement problems involving quantities with derived or compound units (such as mg/mL, kg/$m^3$, acre-feet, etc.).<br>• Applying basic function concepts, e.g., by interpreting the features of a graph in the context of an applied problem.<br>• Applying concepts and skills of geometric measurement e.g., when analyzing a diagram or schematic.<br>• Applying concepts and skills of basic statistics and probability (see 6–8.SP).<br>• Performing rational number arithmetic fluently. | **Yes** | Problems are at an appropriate level for high school and apply knowledge and skills from grades 6-8 (e.g., in grades 6-8 students are expected to apply basic function concepts and interpret the features of a graph in the context of an applied problem. In Algebra 2, students are expected to apply this knowledge to transform graphs of functions in Chapter 1). |
| | **REQUIRED (as applicable)**<br>**1c)** For courses that include standards from the Geometry conceptual category, student work in Geometry significantly involves applications/modeling as well as geometry applications that use algebra skills.[5] | **N/A** | |

[1] Refer also to criterion #1 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[2] If materials show time in both block and standard 'days,' choose either but remain consistent.
[3] For more information on the Widely Applicable Prerequisites, see Table 1 on Page 8 of the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[4] Information excerpted from Table 1 on Page 8 of the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[5] Since the Geometry category itself contains relatively fewer Widely Applicable Prerequisites, this criterion is important to help foster students' college and career readiness.

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Y/N) | JUSTIFICATION/ COMMENTS |
|---|---|---|---|
| **SECTION I (continued): NON-NEGOTIABLE CRITERIA** | | | |
| **Non-Negotiable 2. CONSISTENT, COHERENT CONTENT**<br>Each course's instructional materials are coherent and consistent with the content in the standards.[6]<br><br>☐ Yes ☐ No | **REQUIRED**<br>**2a) *Giving 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. | **No** | Standards indicated with (+) are included in this course (e.g., Sections 5-2 and 5-3 focus on HSA-APR.D.7 (+)). Each chapter is introduced using a preview which details what material a student has seen, what material a student will see in the chapter, and how a student can apply the material beyond the course of Algebra 2. Most lessons provide cues to remind students and teachers of prior learning. |
| | **REQUIRED**<br>**2b) *Relating 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. | **Yes** | Some lessons mention prior learning to introduce new topics (e.g., Lesson 2-1 on using transformations to graph quadratic functions states, *You have studied linear functions of the form f(x) =mx+b.)* |
| **Non-Negotiable 3. RIGOR AND BALANCE:**<br>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.[7]<br><br>☐ Yes ☐ No | **REQUIRED**<br>**3a) *Attention to Conceptual Understanding:*** Materials develop conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings by amply featuring high-quality conceptual problems and questions. | **No** | The materials stress procedural skill over conceptual understanding. On page 161, a chart labeled *student to student* shows a procedure to expanding binomials. While some activities are provided to aid with conceptual understanding, they are often separate from the lesson (e.g., Lesson 2-1 which is about using transformations to graph quadratic functions. There is a lab activity that explains how to use a graphing calculator to explore this concept, but graphing calculators are only used in a couple of examples to check answers. Exercises in both the textbook and workbook stress handwritten, procedural work and do not make a connection with the graphing calculator lab activity that was completed prior to the lesson). |
| | **REQUIRED**<br>**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 higher grades, sufficient practice with | **Yes** | Most materials focus on procedure. |

[6] Refer also to criterion #3 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[7] Refer also to criterion #2 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

| | | | |
|---|---|---|---|
| | algebraic operations is provided in order for students to meet all of the expectations set in the Standards as a whole. | | |
| | **REQUIRED**<br>**3c) *Attention to Applications:*** Materials are designed so that teachers and students spend sufficient time working with engaging applications/modeling. While modeling is a mathematical practice at every grade, it is more prominent and enhanced in high school with more elements of the modeling cycle present. | **Yes** | Materials attend to application in those places in the content standards where expectations for multi-step and real-world problems are explicit. Most lessons contain examples of application problems associated with the content of the lesson to be modeled during instruction. Almost all lessons contain a section of practice application problems related to the material of that lesson. These application problems are often simple word problems. A Performance Task is provided for each chapter, but the tasks consists of multiple disconnected questions and do not provide students with sufficient opportunities with modeling. |
| | **REQUIRED**<br>**3d) *Balance:*** The three aspects of rigor are not always treated together, and are not always treated separately | **Yes** | The three aspects of rigor are treated together and separately. |

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Y/N) | JUSTIFICATION/ COMMENTS |
|---|---|---|---|
| **SECTION I (continued): NON-NEGOTIABLE CRITERIA** | | | |
| **Non-Negotiable 4. PRACTICE-CONTENT CONNECTIONS:** Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.[8] ☒ Yes ☐ No | **REQUIRED** **4a)** The materials connect the Standards for Mathematical Practice and the Standards for Mathematical Content. | **Yes** | Mathematical practices are listed in each lesson and problems are identified that exemplify mathematical practices. The problems identified, however, are not always good examples of the indicated math practices (e.g., page 163, problems 35-38 are linked to Math Practice 5, *Use appropriate tools strategically*; however, the directions for these problems clearly state that students should use the table feature on their graphing calculators). The mathematical practices are linked to the standards for mathematical content in the Explorations in Core Math teacher's workbook. |
| | **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 course. | **Yes** | There are pages in the introduction to the textbook and workbook that address the math practices. These pages explain features of the textbook and workbook that are meant to align with the Standards for Mathematical Practice. More in-depth analysis with more examples would be helpful. |

[8] Refer also to criterion #5 in the High School 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: 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). Courses are designed based on the content in the standards.<br><br>☐ Yes ☐ No | **REQUIRED**<br>**5a)** Materials base courses on the content specified in the standards (Algebra I, Geometry, and Algebra II). [9] | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**5b)** Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a category, or two or more categories, in cases where these connections are natural and important. [10, 11] | | Not evaluated. Non-negotiable criteria were not met. |
| | **5c)** Materials include learning objectives that are visibly shaped by CCSSM cluster and domain headings.[10] | | Not evaluated. Non-negotiable criteria were not met. |
| | **5d)** Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives.[10] | | Not evaluated. 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.<br><br>☐ Yes ☐ No | **REQUIRED**<br>**6a)** Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard. [12] | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**6b)** Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of other concerning key course-level mathematics that is detailed in the content standards (cf. MP.3). [13] | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**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.[13] | | Not evaluated. Non-negotiable criteria were not met. |
| | **6d)** Materials explicitly attend to the specialized language of mathematics.[13] | | Not evaluated. Non-negotiable criteria were not met. |

[9] Refer also to criterion #3 in the HS Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[10] Refer also to criterion #4 in the HS Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[11] Refer to the standards for each course found in the Teacher Support Library.
[12] Refer also to criterion #7 in the HS Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[13] Refer also to criterion #8 in the HS 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:**<br>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.<br><br>☐ Yes ☐ No | **REQUIRED**<br>**7a)** Materials support the uses of technology as called for in the standards. | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**7b)** 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**<br>**7c)** Design of assignments is not haphazard: exercises are given in intentional sequences. | | Not evaluated. Non-negotiable criteria were not met. |
| | **REQUIRED**<br>**7d)** 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**<br>**7e)** 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**<br>**7f)** 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. |
| | **7g)** There is variety in the pacing and grain size of content coverage. [14] | | Not evaluated. Non-negotiable criteria were not met. |
| | **7h)** 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. |
| | **7i)** Manipulatives are faithful representations of the mathematical objects they represent and are connected to written methods. | | Not evaluated. Non-negotiable criteria were not met. |

[14] Refer also to page 16 in the High School 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** | Problems are at an appropriate level for high school and apply knowledge and skills from grades 6-8. |
| | 2. Consistent, Coherent Content | **No** | Standards indicated with (+) are included in this course. |
| | 3. Rigor and Balance | **No** | Most materials focus on procedure. |
| | 4. Practice-Content Connections | **Yes** | More in-depth analysis with more examples would be helpful. |
| **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>** | | | |