

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: **Big Ideas Math Red Accelerated Grade 7 and Middle School Algebra 1**

Grade: **7-8**

Publisher: **Big Ideas Learning**

Copyright: **2014**

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

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

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

The following two indicators may be impacted:

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

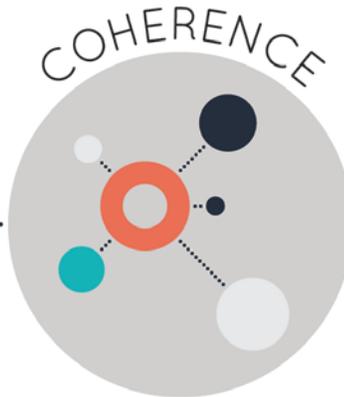
This review remains a Tier 3 rating. As a result of these changes, the following chart identifies the potential impact on specific elements in the current review. The LDOE recommends that district curriculum staff, principals, and teachers take these findings into consideration when using these instructional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

| Criteria | Currently in the Rubric | Next Steps for Educators |
|---|--|---|
| Focus on Major Work (Non-Negotiable) | This program currently is reviewed as “No” for this criterion because the materials do not devote at least 65% of the class time covering the major work required the grades. The pacing guide indicates between 29 and 59% of class time is spent addressing grade-level standards to support the major work of the grade. In addition, these materials contain content that should be introduced in later courses. | Since these materials received a “No” for this indicator, the current weakness will likely remain and should be addressed by adjusting or supplementing with stronger programs. |
| Consistent, Coherent Content (Non-Negotiable) | This program currently is reviewed as “No” for this criterion because the materials do not connect supporting content to major content in meaningful ways. Several chapters were found to contain all supporting content taught and practiced in isolation with no connections to the major work of the grade; however, problems and activities do make important connections across clusters and some domains. | 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. |

Strong mathematics instruction contains the following elements:



Focus strongly where the standards focus.



Think across grades, and link to major topics within grades.



In major topics, pursue conceptual understanding, procedural skill and fluency, and application with equal intensity.

Title: **Big Ideas Math Red Accelerated Grade 7 and Middle School Algebra 1**

Grade: **7-8**

Publisher: **Big Ideas Learning**

Copyright: **2014**

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

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

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

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

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

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

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

Click below for complete grade-level reviews:

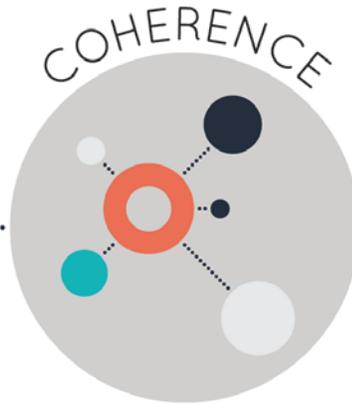
[Grade 7 \(Tier 3\)](#)

[Grade 8 \(Tier 3\)](#)

Strong mathematics instruction contains the following elements:



Focus strongly where the standards focus.



Think across grades, and link to major topics within grades.



In major topics, pursue conceptual understanding, procedural skill and fluency, and application with equal intensity.

Title: **Big Ideas Math Red Accelerated**

Grade: **7**

Publisher: **Big Ideas Learning**

Copyright: **2014**

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

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

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

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

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

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

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES |
|--|--|------------------------|---|
| SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue. | | | |
| <p>Non-Negotiable 1. FOCUS ON MAJOR WORK¹: Students and teachers using the materials as designed devote the large majority² of time to the major work of the grade/course.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | <p>REQUIRED 1a) Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.</p> | <p>No</p> | <p>The pacing guide indicates that Chapters 1-16 are to be covered over 152 days. In this accelerated curriculum, lessons cover content separately for 7th and 8th grade, as well as together. Content that is tied to state standards for 7th grade is covered 27.5 out of 95 days (i.e., 29%), while content tied to state standards for 8th grade is covered 48 out of 82 days (i.e., 59%).</p> |
| | <p>REQUIRED 1b) In any one grade/course, aligned materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In aligned materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.³</p> | <p>Yes</p> | <p>In the 7th grade advanced math curriculum, minimal time is spent on content outside of the appropriate grade level. The beginning of each chapter features scaffolding coursework that prepares the student for the upcoming topic.</p> |
| <p>Non-Negotiable 2. CONSISTENT, COHERENT CONTENT Each course’s instructional materials are coherent and consistent with the content in the Standards.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | <p>REQUIRED 2a) Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.⁴</p> | <p>No</p> | <p>The correlation guide indicates there are lessons where major work is connected to supporting content. However, materials do not connect supporting content to major content in meaningful ways throughout the course. For example, Chapters 7 and Chapter 15 address supporting content and are taught in isolation from the major work of the grade.</p> <p>It should be noted that materials from Chapter 10 connects supporting content in the 7.SP domain to major content in the 7.RP and 7.EE. domains.</p> |

¹ For more on the major work of the grade, see [Focus by Grade Level](#).

² The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.

³ Refer also to criterion #2 in the K–8 [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES |
|---|---|------------------------|--|
| | REQUIRED 2b) Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade/course, in cases where these connections are natural and important. ⁵ | Yes | The materials make important connections across clusters, which are natural and important. Chapter 5 includes many clusters within the 7.RP Domain. Chapter 16 includes many clusters within the 8.EE Domain. It is important to note that while there are many places where the materials are connected within clusters, there are not many places in the curriculum that connect domains. |
| 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 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | REQUIRED 3a) Attention to Conceptual Understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions. | Yes | Conceptual understanding is developed in the materials, especially where it is explicitly demanded in the content standards. In Chapter 13, students are graphing and writing linear equations. Specifically 8.EE.6 is a standard focused on conceptual understanding. In section 13.3, students are deriving a linear function from similar triangles. Chapter 6 focuses on percents, fractions, decimals and content standards, 7.EE.3. There are many places in 6.1, 6.2, and 6.4 where students are asked to do things such as compare, justify, and write in your own words. Another example is in Chapter 1, standard 7.NS.1; addition and subtraction of integers is represented conceptually by using horizontal number lines. |
| | REQUIRED 3b) Attention to Procedural Skill and Fluency: The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra. | Yes | Procedural skill and fluency is emphasized, where such an emphasis is appropriate. Standard 8.EE.C.7 is a fluency standard that is found in Topic 1 and 2. Students are given plenty of problems in order to gain fluency solving equations in one variable. Standard 7.G.B.6 is a fluency standard that is found in Chapter 9. Students are given plenty of problems in order to gain fluency in this standard. Another example is found with addition and subtraction of rational numbers (7.NS.A.1d) in Chapters 1 and 2, but is further reinforced at different points in the curriculum (e.g., during coverage of 7.EE). |
| | REQUIRED | Yes | The materials are designed to provide teachers and students with high-quality problems that require |

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES |
|---|--|------------------------|--|
| | <p>3c) Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the major work of each grade/course including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content Standards where expectations for multi-step and real-world problems are explicit.</p> | | <p>students to apply their knowledge of the content. Chapter 6 content is on percents of increase and decrease as well as discounts and markups. This covers standard 7.RP.3, which is an application standard. Students do application problems that involve single steps and/or multiple steps in context to things such as tax and tip.</p> |
| | <p>REQUIRED 3d) Balance: The three aspects of rigor are not always treated together and are not always treated separately.</p> | <p>Yes</p> | <p>The materials are well aligned to the content standards and, as such, have attended to the three components of rigor. Standards 8.EE.A.3 and 8.EE.A.4 are all standards which cover all three aspects of rigor. In section 16.5, students are using all three aspects together when appropriate.</p> <p>It should be noted that problem sets in every lesson treat all three aspects of rigor together. The problems typically start with fluency skill/practice, then application. Sometimes there are conceptual problems mixed in. There are not problem sets that treat the three aspects of rigor separately, as indicated by the standards.</p> |
| <p>Non-Negotiable 4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS: Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards.⁷</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p>REQUIRED 4a) Materials address the practice standards in such a way as to enrich the major work of the grade/course; practices strengthen the focus on major work instead of detracting from it, in both teacher and student materials.</p> | <p>Yes</p> | <p>Mathematical Practice Standards are addressed explicitly throughout the materials. Laurie's Notes makes these practice standards explicit and provides specific recommendations for implementing the practice standards. An example of Mathematical Practices in the student text can be found on page 363. Students are asked to make sure they have calculated accurately when working with the calculator. In addition, assessments, including alternate assessments, offer students numerous opportunities to engage in the mathematical practices while remaining focused on the major work for the course.</p> |
| <p>SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY</p> | | | |

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES |
|---|--|-----------------------------|---|
| <p>Additional Criterion 5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT: Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards.</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p>REQUIRED 5a) Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.¹⁰</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> |
| | <p>REQUIRED 5b) Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.¹⁰</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> |
| | <p>5c) Materials base content progressions on the progressions in the Standards.⁸</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> |
| | <p>5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards.⁹</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> |
| | <p>5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives.¹¹</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> |
| <p>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.</p> | <p>6a) Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.¹⁰ Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice standard.¹¹ There are teacher-directed materials that explain the role of the practice standards in the classroom and in students’ mathematical development. Alignments to practice standards are accurate.</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> |
| | <p>6b) Materials Support the Standards’ Emphasis on</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-</p> |

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

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

¹⁰ Refer also to criterion #9 in the K–8 [Publishers’ Criteria](#) and #7 in the High School [Publishers’ Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

¹¹ Refer also to criterion #7 in the K–8 [Publishers’ Criteria](#) and #5 in the High School [Publishers’ Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES |
|--|--|------------------------|--|
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Mathematical Reasoning: Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3). Materials engage students in problem solving as a form of argument, attending thoroughly to places in the Standards that explicitly set expectations for multi-step problems. ¹² | | negotiable criteria were not met. |
| | 6c) Materials explicitly attend to the specialized language of mathematics. ¹² | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |
| Additional Criterion 7. INDICATORS OF QUALITY: Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards. ¹³ <input type="checkbox"/> Yes <input type="checkbox"/> No | 7a) There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |
| | 7b) There are separate teacher materials that support and reward teacher study including, but not limited to: discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |
| | 7c) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |
| | 7d) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES |
|----------|--|------------------------|--|
| | mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose. | | |
| | 7e) Lessons are appropriately structured and scaffolded to support student mastery. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |
| | 7f) Materials support the uses of technology as called for in the Standards. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |

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

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

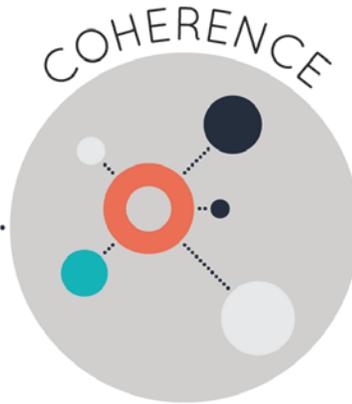
| Section | Criteria | Yes/No | Final Justification/Comments |
|--|---|----------------------|---|
| I: Non-Negotiables | 1. Focus on Major Work | No | The pacing guide indicates 29% of the time is spent on major content for 7th grade and 59% on major content for 8 th grade in the accelerated curriculum. |
| | 2. Consistent, Coherent Content | No | There is an entire Chapter that has only supporting content with no major content for 7th accelerated or 8 th grade mathematics. Materials do connect domains or clusters. |
| | 3. Rigor and Balance | Yes | All three aspects (Conceptual, Fluency, and Application) are present and meaningful to the coursework in 7 th grade accelerated and 8 th grade mathematics. |
| | 4. Focus and Coherence via Practice Standards | Yes | Practice standards are given throughout the course in the teacher guide as well as the student edition. |
| II: Additional Alignment Criteria and Indicators of Quality | 5. Alignment Criteria for Standards for Mathematical Content | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |
| | 6. Alignment Criteria for Standards for Mathematical Practice | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |
| | 7. Indicators of Quality | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |

FINAL DECISION FOR THIS MATERIAL: **Tier III, Not representing quality**

Strong mathematics instruction contains the following elements:



Focus strongly where the standards focus.



Think across grades, and link to major topics within grades.



In major topics, pursue conceptual understanding, procedural skill and fluency, and application with equal intensity.

Title: **Big Ideas Math Middle School Algebra 1**

Grade: **8**

Publisher: **Big Ideas Learning**

Copyright: **2014**

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

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

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

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

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

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

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES |
|--|--|------------------------|--|
| SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue. | | | |
| <p>Non-Negotiable 1. FOCUS ON MAJOR WORK¹⁴: Students and teachers using the materials as designed devote the large majority¹⁵ of time to the major work of the grade/course.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | <p>REQUIRED 1a) Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.</p> <p>REQUIRED 1b) In any one grade/course, aligned materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In aligned materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.¹⁶</p> | <p>No</p> <p>No</p> | <p>The pacing guide indicates that Chapters 1-12 are to be covered over 164 days. In this accelerated curriculum, lessons cover content separately for 8th grade and Algebra 1, as well as together. The 8th grade standards are covered 36 out of 65 days (55%), while Algebra 1 standards are covered 87 out of 149 days (58%).</p> <p>Materials introduced content outside of the appropriate grade. For example, Section 6.2 and 6.3 contain content that should be introduced as part of Algebra II. In addition, Chapter 11 covers rational equations and functions, which should also be introduced as part of Algebra II.</p> |
| <p>Non-Negotiable 2. CONSISTENT, COHERENT CONTENT Each course's instructional materials are coherent and consistent with the content in the Standards.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | <p>REQUIRED 2a) Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.¹⁷</p> | <p>No</p> | <p>The correlation guide indicates there are lessons where major work is connected to supporting content. However, materials do not connect supporting content to major content in meaningful ways throughout the course. For example, Chapter 12 is all supporting content and is taught in isolation from the major work of the grade. It should be noted that some meaningful connections can be found. For example, in Chapter 6, students work to build functions that model relationships between quantities by focusing on standards in the BF.A cluster (supporting content) as part of an introduction to interpreting exponential function IF.B (major content).</p> |

¹⁴ For more on the major work of the grade, see [Focus by Grade Level](#).

¹⁵ The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.

¹⁶ Refer also to criterion #2 in the K–8 [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES |
|--|---|------------------------|--|
| | REQUIRED 2b) Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade/course, in cases where these connections are natural and important. ¹⁸ | Yes | The materials make important connections across clusters, which are natural and important. Within Algebra 1 (in 8th grade text), there are numerous places where both 8th grade standards and Algebra 1 standards are present. For example, Chapter 4 covers Algebra 1 standard A.CED.3 and 8th Grade standard, 8.EE.8. There are also connections made between domains in Algebra 1. For example, Chapter 2 covers content from the Creating Equations domain and Interpreting Functions domain. Additionally, in Chapter 1 students use units to understand application problems (N.Q.1) in the process of creating equations (A.CED) |
| Non-Negotiable 3. RIGOR AND BALANCE: Each grade’s instructional materials reflect the balances in the Standards and help students meet the Standards’ rigorous expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application. ¹⁹ <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | REQUIRED 3a) Attention to Conceptual Understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions. | Yes | Conceptual understanding is developed in the materials, especially where it is explicitly demanded in the content standards. Specifically, F.IF.5 is a standard focused on conceptual understanding and Section 5.1 covers domain and range using all different mathematical methods including graphs, equations, tables, and words. Another example is in Chapter 11, direct and inverse variation; emphasis is placed on describing relationships between quantities in introductory examples and student practice problem sets. Also, each section provides a “concept check” that requires students to demonstrate knowledge of the content. |
| | REQUIRED 3b) Attention to Procedural Skill and Fluency: The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra. | Yes | Procedural skill and fluency is emphasized, where such an emphasis is appropriate for Algebra 1. Standard F.IF.7 is a fluency standard, which is found in Section 8.4. Students are given plenty of problems in order to gain fluency in graphing quadratic functions and showing intercepts, maxima, and minima. In another example, students are offered many opportunities to solve equations and inequalities in one variable as well as quadratic equations (A.REI.3 and A.REI.4) throughout the curriculum. |

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES |
|--|---|------------------------|---|
| | <p>REQUIRED 3c) Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the major work of each grade/course including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content Standards where expectations for multi-step and real-world problems are explicit.</p> | Yes | <p>The materials are designed to provide teachers and students with high-quality problems that require students to apply their knowledge of the content. A.SSE.1 is an application standard and can be found in Sections 6.5 and 6.6. Students are working with real-life applications in order to understand and use Exponential Growth and Decay. Another example can be found in section 2.1. Students are required to apply their knowledge of graphing linear equations (HSA-REI.D.10) to a tropical storm in the Gulf of Mexico. Finally, in Chapter 3 (Solving Linear Inequalities), students must write inequalities to find how much money can be withdrawn from an ATM, determine whether or not job applicants meet criteria for getting a job, or determining the minimum length of a geometric figure.</p> |
| | <p>REQUIRED 3d) Balance: The three aspects of rigor are not always treated together and are not always treated separately.</p> | Yes | <p>Overall the program meets standard A.CED.2, which covers all three aspects of rigor. For example, in chapter 2, this standard is present in 5 of the 7 lessons. Students use all three aspects together when appropriate. Students are sometimes asked to solve linear equations devoid of any context (with a focus on fluency), but at other times they are asked to fluently solve equations in the context of real-world application problems. It should be noted however, that there are problem sets in every lesson that treat all three aspects of rigor together. The problems typically start with fluency skill/practice, then application. At times, conceptual problems are mixed in. There are no problem sets that treat the three aspects of rigor separately, as indicated by the standards.</p> |
| <p>Non-Negotiable 4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS: Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards.²⁰</p> | <p>REQUIRED 4a) Materials address the practice standards in such a way as to enrich the major work of the grade/course; practices strengthen the focus on major work instead of detracting from it, in both teacher and student materials.</p> | Yes | <p>Mathematical Practice Standards are addressed explicitly throughout the materials. Laurie's Notes makes these practice standards explicit and provides specific recommendations for implementing the practice standards. An example of Mathematical Practices in the student text can be found on page 301. Students are asked to simplify the problem by organizing the information and how does this affect</p> |

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

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

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

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES |
|---|---|------------------------|--|
| <p>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.</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p>stimulate students to develop the habits of mind described in the practice standard.²⁴ There are teacher-directed materials that explain the role of the practice standards in the classroom and in students’ mathematical development. Alignments to practice standards are accurate.</p> | | |
| | <p>6b) Materials Support the Standards’ Emphasis on Mathematical Reasoning: Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3). Materials engage students in problem solving as a form of argument, attending thoroughly to places in the Standards that explicitly set expectations for multi-step problems.²⁵</p> | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |
| | <p>6c) Materials explicitly attend to the specialized language of mathematics.¹²</p> | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |
| <p>Additional Criterion 7. INDICATORS OF QUALITY: Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards.²⁶</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p>7a) There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc.</p> | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |
| | <p>7b) There are separate teacher materials that support and reward teacher study including, but not limited to: discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion</p> | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |

²⁴ Refer also to criterion #7 in the K–8 [Publishers’ Criteria](#) and #5 in the High School [Publishers’ Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

²⁵ Refer also to criterion #10 in the K–8 [Publishers’ Criteria](#) and #8 in the High School [Publishers’ Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

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

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

FINAL EVALUATION

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

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

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

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

| Section | Criteria | Yes/No | Final Justification/Comments |
|---------------------------|---------------------------------|-----------|--|
| I: Non-Negotiables | 1. Focus on Major Work | No | The pacing guide indicates that class time to address 8 th grade standards (e.g., 55%) and Algebra 1 standards (e.g., 58%) does not support the major work of the grade. In addition, these materials contain content that should be introduced in Algebra 2. |
| | 2. Consistent, Coherent Content | No | There is an entire chapter that only has supporting content with no major content for 8th grade accelerated or Algebra 1. Materials do connect domains or clusters. |

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES |
|---|---|---------------------------|---|
| | 3. Rigor and Balance | Yes | All three aspects of rigor (i.e., Conceptual, Fluency, and Application) are present and meaningful to the coursework for 8 th grade accelerated and Algebra 1. |
| | 4. Focus and Coherence via Practice Standards | Yes | Practice standards are given throughout the course in the teacher guide as well as the student edition. |
| II: Additional Alignment Criteria and Indicators of Quality | 5. Alignment Criteria for Standards for Mathematical Content | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |
| | 6. Alignment Criteria for Standards for Mathematical Practice | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |
| | 7. Indicators of Quality | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. |
| FINAL DECISION FOR THIS MATERIAL: Tier III, Not representing quality | | | |

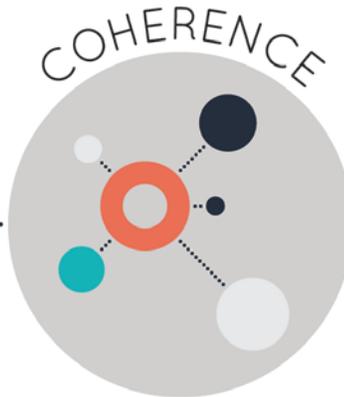
Appendix I.

Publisher Response

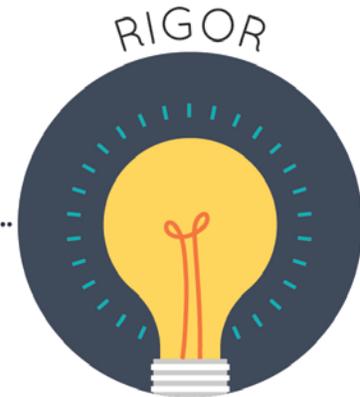
Strong mathematics instruction contains the following elements:



Focus strongly where the standards focus.



Think across grades, and link to major topics within grades.



In major topics, pursue conceptual understanding, procedural skill and fluency, and application with equal intensity.

Title: **Big Ideas Math Red Accelerated Grade 7 and Middle School Algebra 1**

Grade: **7-8**

Publisher: **Big Ideas Learning**

Copyright: **2014**

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

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

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

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

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

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

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

Click below for complete grade-level reviews:

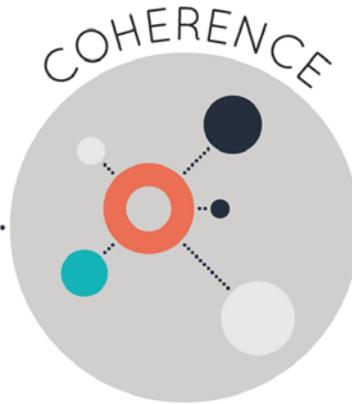
[Grade 7 \(Tier 3\)](#)

[Grade 8 \(Tier 3\)](#)

Strong mathematics instruction contains the following elements:



Focus strongly where the standards focus.



Think across grades, and link to major topics within grades.



In major topics, pursue conceptual understanding, procedural skill and fluency, and application with equal intensity.

Title: **Big Ideas Math Red Accelerated**

Grade: **7**

Publisher: **Big Ideas Learning**

Copyright: **2014**

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

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

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

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

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

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

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|--|--|------------------------|--|---|
| SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue. | | | | |
| <p>Non-Negotiable 1. FOCUS ON MAJOR WORK¹: Students and teachers using the materials as designed devote the large majority² of time to the major work of the grade/course.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | <p>REQUIRED 1a) Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.</p> | <p>No</p> | <p>The pacing guide indicates that Chapters 1-16 are to be covered over 152 days. In this accelerated curriculum, lessons cover content separately for 7th and 8th grade, as well as together. Content that is tied to state standards for 7th grade is covered 27.5 out of 95 days (i.e., 29%), while content tied to state standards for 8th grade is covered 48 out of 82 days (i.e., 59%).</p> | <p>Big Ideas Math Red Accelerated was written with the intent to advance students beginning with 7th grade material into Algebra 1 in 8th grade, essentially covering two years of standards in one year. Therefore, the standards that are covered in this book cover 2 grade levels. Because of this, the system used to evaluate this book does not work. Accurately calculating the amount of class time that is spent on the major work of the grade for 7th and 8th grade standards yields the following data:</p> <p>Using the pacing guide in the front matter of the Teaching Edition, 98 out of 152 days (64.5%) are spent on the major work of grades 7 and 8.</p> <p>Therefore, Big Ideas Math fully meets this criteria.</p> |
| | <p>REQUIRED 1b) In any one grade/course, aligned materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In aligned materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.³</p> | <p>Yes</p> | <p>In the 7th grade advanced math curriculum, minimal time is spent on content outside of the appropriate grade level. The beginning of each chapter features scaffolding coursework that prepares the student for the upcoming topic.</p> | |
| <p>Non-Negotiable 2. CONSISTENT, COHERENT CONTENT Each course’s instructional materials are coherent and consistent with the content in the</p> | <p>REQUIRED 2a) Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.⁴</p> | <p>No</p> | <p>The correlation guide indicates there are lessons where major work is connected to supporting content. However, materials do not connect supporting content to major content in meaningful ways throughout the course. For example, Chapters 7 and Chapter 15 address supporting content and are taught in isolation from the major work of the grade.</p> | <p>Throughout the Big Ideas Math program, Supporting Work is integrated with the Major Work of each grade. This gives students the ability to enhance their understanding of supporting material by engaging them in the subjects that are most important for that grade level at every possible opportunity.</p> |

¹ For more on the major work of the grade, see [Focus by Grade Level](#).

² The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.

³ Refer also to criterion #2 in the K–8 [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|--|---|------------------------|--|---|
| Standards. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | <p>It should be noted that materials from Chapter 10 connects supporting content in the 7.SP domain to major content in the 7.RP and 7.EE. domains.</p> | <p>For example, Chapter 10 focuses on probability and statistics while also engaging students in work with ratios, proportions, and percentages. One example of this can be seen on page 443 where Example 3 uses proportions to enhance the learning of samples and populations. Also, Chapter 7 incorporates standards 7.EE.B and 7.RP.A, which are considered major content into the supporting content of the chapter. Some examples of this can be found in Example 1 on page 288 and throughout section 7.5.</p> <p>Chapter 15 also incorporates major content in meaningful ways by using standards 8.EE.B, 8.EE.C, and 8.G.A to supplement and enhance the material.</p> <p>Once material is taught, it is used throughout the Big Ideas Math series to ensure full coverage of the material and connections between standards, grade levels, and real-life situations. Because of this, the correlations in the the Teaching Edition do not show all areas where a standard is covered. These correlations only show where the standards are the primary focus of the chapter, not where they are supporting additional content.</p> <p>Therefore, Big Ideas Math fully meets this criteria.</p> |
| | REQUIRED 2b) Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade/course, in cases where these connections are natural and important. ⁵ | Yes | <p>The materials make important connections across clusters, which are natural and important. Chapter 5 includes many clusters within the 7.RP Domain. Chapter 16 includes many clusters within the 8.EE Domain. It is important to note that while there are many places where the materials are connected within clusters, there are not many places in the curriculum that connect domains.</p> | |
| Non-Negotiable 3. RIGOR AND BALANCE: Each grade’s instructional materials reflect the balances in the Standards and help students meet the Standards’ rigorous | REQUIRED 3a) Attention to Conceptual Understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion | Yes | <p>Conceptual understanding is developed in the materials, especially where it is explicitly demanded in the content standards. In Chapter 13, students are graphing and writing linear equations. Specifically 8.EE.6 is a standard focused on conceptual understanding. In section 13.3, students are deriving a linear function from similar triangles.</p> | |

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|---|---|------------------------|--|--------------------|
| <p>expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application.⁶</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p>questions.</p> | | <p>Chapter 6 focuses on percents, fractions, decimals and content standards, 7.EE.3. There are many places in 6.1, 6.2, and 6.4 where students are asked to do things such as compare, justify, and write in your own words. Another example is in Chapter 1, standard 7.NS.1; addition and subtraction of integers is represented conceptually by using horizontal number lines.</p> | |
| | <p>REQUIRED 3b) Attention to Procedural Skill and Fluency: The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.</p> | <p>Yes</p> | <p>Procedural skill and fluency is emphasized, where such an emphasis is appropriate. Standard 8.EE.C.7 is a fluency standard that is found in Topic 1 and 2. Students are given plenty of problems in order to gain fluency solving equations in one variable. Standard 7.G.B.6 is a fluency standard that is found in Chapter 9. Students are given plenty of problems in order to gain fluency in this standard. Another example is found with addition and subtraction of rational numbers (7.NS.A.1d) in Chapters 1 and 2, but is further reinforced at different points in the curriculum (e.g., during coverage of 7.EE).</p> | |
| | <p>REQUIRED 3c) Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the major work of each grade/course including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content Standards where expectations for multi-step and real-world problems are explicit.</p> | <p>Yes</p> | <p>The materials are designed to provide teachers and students with high-quality problems that require students to apply their knowledge of the content. Chapter 6 content is on percents of increase and decrease as well as discounts and markups. This covers standard 7.RP.3, which is an application standard. Students do application problems that involve single steps and/or multiple steps in context to things such as tax and tip.</p> | |
| | <p>REQUIRED 3d) Balance: The three aspects of rigor are not always treated together and are not always treated separately.</p> | <p>Yes</p> | <p>The materials are well aligned to the content standards and, as such, have attended to the three components of rigor. Standards 8.EE.A.3 and 8.EE.A.4 are all standards which cover all three aspects of rigor. In section 16.5, students are using</p> | |

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|---|---|-----------------------------|---|--------------------|
| | | | <p>all three aspects together when appropriate.</p> <p>It should be noted that problem sets in every lesson treat all three aspects of rigor together. The problems typically start with fluency skill/practice, then application. Sometimes there are conceptual problems mixed in. There are not problem sets that treat the three aspects of rigor separately, as indicated by the standards.</p> | |
| <p>Non-Negotiable 4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS: Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards.⁷</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p>REQUIRED 4a) Materials address the practice standards in such a way as to enrich the major work of the grade/course; practices strengthen the focus on major work instead of detracting from it, in both teacher and student materials.</p> | <p>Yes</p> | <p>Mathematical Practice Standards are addressed explicitly throughout the materials. Laurie's Notes makes these practice standards explicit and provides specific recommendations for implementing the practice standards. An example of Mathematical Practices in the student text can be found on page 363. Students are asked to make sure they have calculated accurately when working with the calculator. In addition, assessments, including alternate assessments, offer students numerous opportunities to engage in the mathematical practices while remaining focused on the major work for the course.</p> | |
| SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY | | | | |
| <p>Additional Criterion 5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT: Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards.</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p>REQUIRED 5a) Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.¹⁰</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> | |
| | <p>REQUIRED 5b) Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.¹⁰</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> | |
| | <p>5c) Materials base content progressions on the progressions in the Standards.⁸</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> | |

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|---|--|------------------------|--|--------------------|
| | 5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards. ⁹ | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | 5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives. ¹¹ | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| <p>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.</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p>6a) Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.¹⁰ Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice standard.¹¹ There are teacher-directed materials that explain the role of the practice standards in the classroom and in students’ mathematical development. Alignments to practice standards are accurate.</p> | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | <p>6b) Materials Support the Standards’ Emphasis on Mathematical Reasoning: Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3). Materials engage students in problem solving as a form of argument, attending thoroughly to places in the Standards that explicitly set expectations for multi-step problems.¹²</p> | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | <p>6c) Materials explicitly attend to the specialized language of mathematics.¹²</p> | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| <p>Additional Criterion 7. INDICATORS OF QUALITY: Quality materials should exhibit the indicators outlined here in order to give teachers and students the</p> | <p>7a) There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc.</p> | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |

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

¹⁰ Refer also to criterion #9 in the K–8 [Publishers’ Criteria](#) and #7 in the High School [Publishers’ Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

¹¹ Refer also to criterion #7 in the K–8 [Publishers’ Criteria](#) and #5 in the High School [Publishers’ Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

¹² Refer also to criterion #10 in the K–8 [Publishers’ Criteria](#) and #8 in the High School [Publishers’ Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|--|--|------------------------|--|--------------------|
| tools they need to meet the expectations of the Standards. ¹³ <input type="checkbox"/> Yes <input type="checkbox"/> No | 7b) There are separate teacher materials that support and reward teacher study including, but not limited to: discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | 7c) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | 7d) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | 7e) Lessons are appropriately structured and scaffolded to support student mastery. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | 7f) Materials support the uses of technology as called for in the Standards. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| FINAL EVALUATION <i>Tier 1 ratings</i> receive a “Yes” in Column 1 for Criteria 1 – 7. <i>Tier 2 ratings</i> 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. <i>Tier 3 ratings</i> receive a “No” in Column 1 for at least one of the non-negotiable criteria. | | | | |
| Compile the results for Sections I and II to make a final decision for the material under review. | | | | |
| Section | Criteria | Yes/No | Final Justification/Comments | |

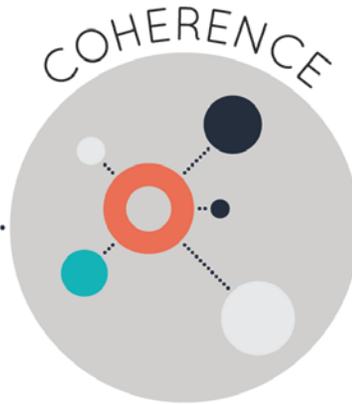
¹³ Refer also to pages 18-20 in the K – 8 [Publishers’ Criteria](#) and pages 16-18 in the High School [Publishers’ Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|---|---|------------------------|---|---|
| I: Non-Negotiables | 1. Focus on Major Work | No | The pacing guide indicates 29% of the time is spent on major content for 7th grade and 59% on major content for 8 th grade in the accelerated curriculum. | Using the pacing guide in the front matter of the Teaching Edition, 98 out of 152 days (64.5%) are spent on the major work of grades 7 and 8. |
| | 2. Consistent, Coherent Content | No | There is an entire Chapter that has only supporting content with no major content for 7th accelerated or 8 th grade mathematics. Materials do connect domains or clusters. | Once material is taught, it is used throughout the Big Ideas Math series to ensure full coverage of the material and connections between standards, grade levels, and real-life situations. Because of this, the correlations in the the Teaching Edition do not show all areas where a standard is covered. These correlations only show where the standards are the primary focus of the chapter, not where they are supporting additional content. |
| | 3. Rigor and Balance | Yes | All three aspects (Conceptual, Fluency, and Application) are present and meaningful to the coursework in 7 th grade accelerated and 8 th grade mathematics. | |
| | 4. Focus and Coherence via Practice Standards | Yes | Practice standards are given throughout the course in the teacher guide as well as the student edition. | |
| II: Additional Alignment Criteria and Indicators of Quality | 5. Alignment Criteria for Standards for Mathematical Content | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | 6. Alignment Criteria for Standards for Mathematical Practice | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | 7. Indicators of Quality | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| FINAL DECISION FOR THIS MATERIAL: Tier III, Not representing quality | | | | |

Strong mathematics instruction contains the following elements:



Focus strongly where the standards focus.



Think across grades, and link to major topics within grades.



In major topics, pursue conceptual understanding, procedural skill and fluency, and application with equal intensity.

Title: **Big Ideas Math Middle School Algebra 1**

Grade: **8**

Publisher: **Big Ideas Learning**

Copyright: **2014**

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

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

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

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

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

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

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|--|---|------------------------|---|---|
| SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue. | | | | |
| <p>Non-Negotiable 1. FOCUS ON MAJOR WORK¹⁴: Students and teachers using the materials as designed devote the large majority¹⁵ of time to the major work of the grade/course.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | <p>REQUIRED 1a) Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.</p> | No | <p>The pacing guide indicates that Chapters 1-12 are to be covered over 164 days. In this accelerated curriculum, lessons cover content separately for 8th grade and Algebra 1, as well as together. The 8th grade standards are covered 36 out of 65 days (55%), while Algebra 1 standards are covered 87 out of 149 days (58%).</p> | <p>Big Ideas Math Algebra 1 was written with the intent to teach students Algebra 1 in 8th grade. Therefore, most of the 8th grade standards would have been taught prior to this course. Because of this, the process used to review this course is not an ideal review and the majority of the classtime spent in this course cover the Widely Applicable Prerequisites for Algebra 1.</p> <p>Using the pacing guide in the Teaching Edition, 157 out of 164 days or 95.7% amount of classtime is spent on the Major Work of 8th grade and the Widely Applicable Prerequisites for Algebra 1.</p> <p>Therefore, Big Ideas Math fully meets this criteria.</p> |
| | <p>REQUIRED 1b) In any one grade/course, aligned materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In aligned materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.¹⁶</p> | No | <p>Materials introduced content outside of the appropriate grade. For example, Section 6.2 and 6.3 contain content that should be introduced as part of Algebra II. In addition, Chapter 11 covers rational equations and functions, which should also be introduced as part of Algebra II.</p> | <p>Section 6.2 and 6.3 cover standards N.RN.1 and N.RN.2. According to Appendix A of the CCSSM, these standards should be covered in an Algebra 1 course. Additionally, Chapter 11 covers rational equations which are part of A.REI.10, an Algebra 1 standard. The other rational equation content that is taught in Chapter 11 is taught to fully cover standards F.BF.4a and A.CED.1. These standards require students to use rational equations. Although this is not needed until Algebra 2, the material was deliberately kept together to allow for a more meaningful and sensible approach to the material.</p> <p>Please see pages 8 and 10 of http://www.corestandards.org/assets/CCSSI_Mathematics_Appendix_A.pdf</p> <p>Therefore, Big Ideas Math fully meets this criteria.</p> |

¹⁴ For more on the major work of the grade, see [Focus by Grade Level](#).

¹⁵ The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.

¹⁶ Refer also to criterion #2 in the K–8 [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|--|---|------------------------|--|--|
| <p>Non-Negotiable 2. CONSISTENT, COHERENT CONTENT Each course’s instructional materials are coherent and consistent with the content in the Standards.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | <p>REQUIRED 2a) Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.¹⁷</p> | <p>No</p> | <p>The correlation guide indicates there are lessons where major work is connected to supporting content. However, materials do not connect supporting content to major content in meaningful ways throughout the course. For example, Chapter 12 is all supporting content and is taught in isolation from the major work of the grade. It should be noted that some meaningful connections can be found. For example, in Chapter 6, students work to build functions that model relationships between quantities by focusing on standards in the BF.A cluster (supporting content) as part of an introduction to interpreting exponential function IF.B (major content).</p> | <p>Throughout the Big Ideas Math program, Supporting Work is integrated with the Major Work of each grade. This gives students the ability to enhance their understanding of supporting material by engaging them in the subjects that are most important for that grade level at every possible opportunity.</p> <p>Most of this book focuses on major content and Widely Applicable Prerequisites. The few sections that do not have a primary focus on major content are in Chapter 12, however major content is used to supplement and enhance the material in meaningful ways.</p> <p>Once material is taught, it is used throughout the Big Ideas Math series to ensure full coverage of the material and connections between standards, grade levels, and real-life situations. Because of this, the correlations in the the Teaching Edition do not show all areas where a standard is covered. These correlations only show where the standards are the primary focus of the chapter, not where they are supporting additional content.</p> <p>Therefore, Big Ideas Math fully meets this criteria.</p> |
| | <p>REQUIRED 2b) Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade/course, in cases where these connections are natural and important.¹⁸</p> | <p>Yes</p> | <p>The materials make important connections across clusters, which are natural and important. Within Algebra 1 (in 8th grade text), there are numerous places where both 8th grade standards and Algebra 1 standards are present. For example, Chapter 4 covers Algebra 1 standard A.CED.3 and 8th Grade standard, 8.EE.8. There are also connections made between domains in Algebra 1. For example, Chapter 2 covers content from the Creating Equations domain and Interpreting Functions domain. Additionally, in Chapter 1 students use units to understand application problems (N.Q.1) in the process of creating equations (A.CED)</p> | |

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|--|--|------------------------|--|--------------------|
| <p>Non-Negotiable</p> <p>3. RIGOR AND BALANCE: Each grade’s instructional materials reflect the balances in the Standards and help students meet the Standards’ rigorous expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application.¹⁹</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p>REQUIRED</p> <p>3a) Attention to Conceptual Understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.</p> | Yes | <p>Conceptual understanding is developed in the materials, especially where it is explicitly demanded in the content standards. Specifically, F.IF.5 is a standard focused on conceptual understanding and Section 5.1 covers domain and range using all different mathematical methods including graphs, equations, tables, and words. Another example is in Chapter 11, direct and inverse variation; emphasis is placed on describing relationships between quantities in introductory examples and student practice problem sets. Also, each section provides a “concept check” that requires students to demonstrate knowledge of the content.</p> | |
| | <p>REQUIRED</p> <p>3b) Attention to Procedural Skill and Fluency: The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.</p> | Yes | <p>Procedural skill and fluency is emphasized, where such an emphasis is appropriate for Algebra 1. Standard F.IF.7 is a fluency standard, which is found in Section 8.4. Students are given plenty of problems in order to gain fluency in graphing quadratic functions and showing intercepts, maxima, and minima. In another example, students are offered many opportunities to solve equations and inequalities in one variable as well as quadratic equations (A.REI.3 and A.REI.4) throughout the curriculum.</p> | |
| | <p>REQUIRED</p> <p>3c) Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the major work of each grade/course including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content Standards where expectations</p> | Yes | <p>The materials are designed to provide teachers and students with high-quality problems that require students to apply their knowledge of the content. A.SSE.1 is an application standard and can be found in Sections 6.5 and 6.6. Students are working with real-life applications in order to understand and use Exponential Growth and Decay. Another example can be found in section 2.1. Students are required to apply their knowledge of graphing linear equations (HSA-REI.D.10) to a tropical storm in the Gulf of Mexico. Finally, in Chapter 3 (Solving Linear Inequalities), students must write inequalities to find how much money can be withdrawn from an ATM, determine whether or not job applicants meet</p> | |

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|---|---|------------------------|---|--------------------|
| | for multi-step and real-world problems are explicit. | | criteria for getting a job, or determining the minimum length of a geometric figure. | |
| | REQUIRED 3d) Balance: The three aspects of rigor are not always treated together and are not always treated separately. | Yes | Overall the program meets standard A.CED.2, which covers all three aspects of rigor. For example, in chapter 2, this standard is present in 5 of the 7 lessons. Students use all three aspects together when appropriate. Students are sometimes asked to solve linear equations devoid of any context (with a focus on fluency), but at other times they are asked to fluently solve equations in the context of real-world application problems. It should be noted however, that there are problem sets in every lesson that treat all three aspects of rigor together. The problems typically start with fluency skill/practice, then application. At times, conceptual problems are mixed in. There are no problem sets that treat the three aspects of rigor separately, as indicated by the standards. | |
| Non-Negotiable 4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS: Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards. ²⁰ <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | REQUIRED 4a) Materials address the practice standards in such a way as to enrich the major work of the grade/course; practices strengthen the focus on major work instead of detracting from it, in both teacher and student materials. | Yes | Mathematical Practice Standards are addressed explicitly throughout the materials. Laurie's Notes makes these practice standards explicit and provides specific recommendations for implementing the practice standards. An example of Mathematical Practices in the student text can be found on page 301. Students are asked to simplify the problem by organizing the information and how does this affect the answer. In addition, assessments, including alternate assessments, offer students numerous opportunities to engage in the mathematical practices while remaining focused on the major work for the course. | |
| SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY | | | | |
| Additional Criterion 5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT: Materials foster focus and coherence by linking topics (across | REQUIRED 5a) Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year. ¹⁰ | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|---|--|-----------------------------|---|--------------------|
| <p>domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards.</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p>REQUIRED 5b) Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.¹⁰</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> | |
| | <p>5c) Materials base content progressions on the progressions in the Standards.²¹</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> | |
| | <p>5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards.²²</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> | |
| | <p>5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives.¹¹</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> | |
| <p>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.</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p>6a) Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.²³ Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice standard.²⁴ There are teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. Alignments to practice standards are accurate.</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> | |
| | <p>6b) Materials Support the Standards' Emphasis on Mathematical Reasoning: Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content</p> | <p>Not Evaluated</p> | <p>This section was not evaluated because the non-negotiable criteria were not met.</p> | |

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

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

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|--|--|--|--|--------------------|
| | standards (cf. MP.3). Materials engage students in problem solving as a form of argument, attending thoroughly to places in the Standards that explicitly set expectations for multi-step problems. ²⁵ | | | |
| Additional Criterion 7. INDICATORS OF QUALITY: Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards. ²⁶ <input type="checkbox"/> Yes <input type="checkbox"/> No | 6c) Materials explicitly attend to the specialized language of mathematics. ¹² | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | 7a) There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | 7b) There are separate teacher materials that support and reward teacher study including, but not limited to: discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | 7c) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| 7d) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | | |

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|--|--|------------------------|--|--|
| | Each problem or exercise has a purpose. | | | |
| | 7e) Lessons are appropriately structured and scaffolded to support student mastery. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | 7f) Materials support the uses of technology as called for in the Standards. | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| FINAL EVALUATION <i>Tier 1 ratings</i> receive a “Yes” in Column 1 for Criteria 1 – 7. <i>Tier 2 ratings</i> 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. <i>Tier 3 ratings</i> receive a “No” in Column 1 for at least one of the non-negotiable criteria. | | | | |
| Compile the results for Sections I and II to make a final decision for the material under review. | | | | |
| Section | Criteria | Yes/No | Final Justification/Comments | |
| I: Non-Negotiables | 1. Focus on Major Work | No | The pacing guide indicates that class time to address 8 th grade standards (e.g., 55%) and Algebra 1 standards (e.g., 58%) does not support the major work of the grade. In addition, these materials contain content that should be introduced in Algebra 2. | Using the pacing guide in the Teaching Edition, 157 out of 164 days or 95.7% amount of classtime is spent on the Major Work of 8th grade and the Widely Applicable Prerequisites for Algebra 1. |
| | 2. Consistent, Coherent Content | No | There is an entire chapter that only has supporting content with no major content for 8th grade accelerated or Algebra 1. Materials do connect domains or clusters. | <p>Throughout the Big Ideas Math program, Supporting Work is integrated with the Major Work of each grade. This gives students the ability to enhance their understanding of supporting material by engaging them in the subjects that are most important for that grade level at every possible opportunity.</p> <p>Most of this book focuses on major content and Widely Applicable Prerequisites. The few sections that do not have a primary focus on major content are in Chapter 12, however major content is used to supplement and enhance the material in meaningful ways.</p> <p>Once material is taught, it is used throughout the Big Ideas Math series to ensure full coverage of the material and connections between standards, grade levels, and real-life situations. Because of this, the correlations in the the Teaching Edition do not show</p> |

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Yes/No) | JUSTIFICATION/ COMMENTS WITH EXAMPLES | PUBLISHER RESPONSE |
|---|---|------------------------|---|---|
| | | | | all areas where a standard is covered. These correlations only show where the standards are the primary focus of the chapter, not where they are supporting additional content. |
| | 3. Rigor and Balance | Yes | All three aspects of rigor (i.e., Conceptual, Fluency, and Application) are present and meaningful to the coursework for 8 th grade accelerated and Algebra 1. | |
| | 4. Focus and Coherence via Practice Standards | Yes | Practice standards are given throughout the course in the teacher guide as well as the student edition. | |
| II: Additional Alignment Criteria and Indicators of Quality | 5. Alignment Criteria for Standards for Mathematical Content | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | 6. Alignment Criteria for Standards for Mathematical Practice | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| | 7. Indicators of Quality | Not Evaluated | This section was not evaluated because the non-negotiable criteria were not met. | |
| FINAL DECISION FOR THIS MATERIAL: Tier III, Not representing quality | | | | |

Appendix II.

Public Comments

There were no public comments submitted.