

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: **SpringBoard Mathematics Algebra I**

Grade: **9**

Publisher: **The College Board**

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

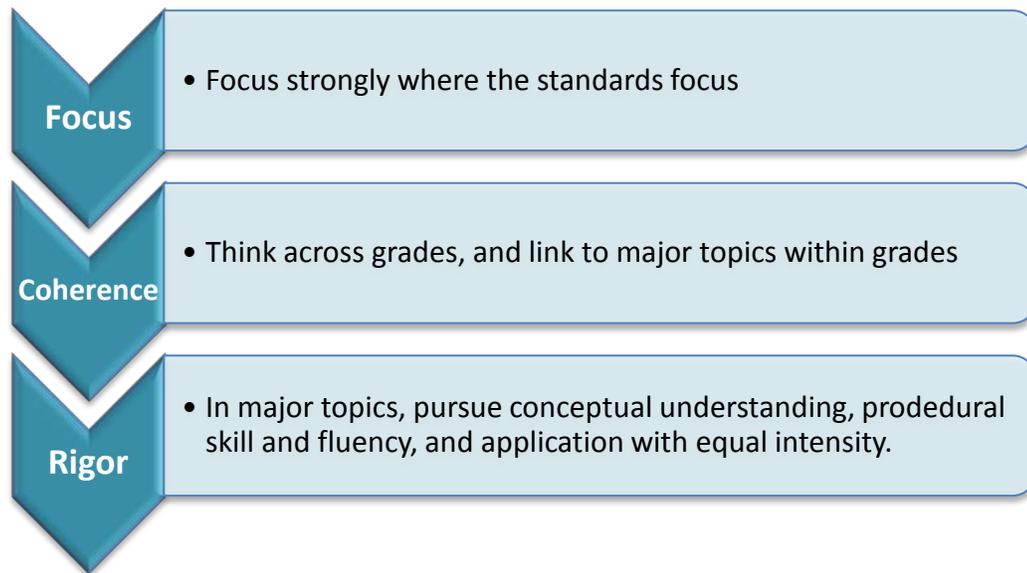
The following two indicators may be impacted:

- 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 “Yes” for this criteria because students spend the majority of their time completing work widely applicable as prerequisites for postsecondary education. Student work corresponds to standards written for high school math. | Make sure to review all assessment materials to ensure alignment to new clarifications/limitations and the revised, as well as, the placement of standards by grade/course. |
| Consistent, Coherent Content (Non-Negotiable) | This program currently is reviewed as “No” for this criteria because the coursework does not mention prior knowledge learned in middle school and how it is applied to the current coursework. No connections to prior knowledge from earlier grades or courses can be explicitly found in the text or course materials. | 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:



Title: Springboard Mathematics Algebra 1

Grade: 9

Publisher: The College Board

Copyright: 2014

Overall Rating: Tier III, Not representing quality

[Tier I](#), [Tier II](#), [Tier II](#) Elements of this review:

| STRONG | WEAK |
|--|--|
| <u>Focus on Major Work</u> (Non-Negotiable) | <u>Consistent, Coherent Content</u> (Non-Negotiable) |
| <u>Rigor and Balance</u> (Non-Negotiable) | |
| <u>Practice-Content Connections</u> (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 received a “Yes” for all Criteria 1–7.

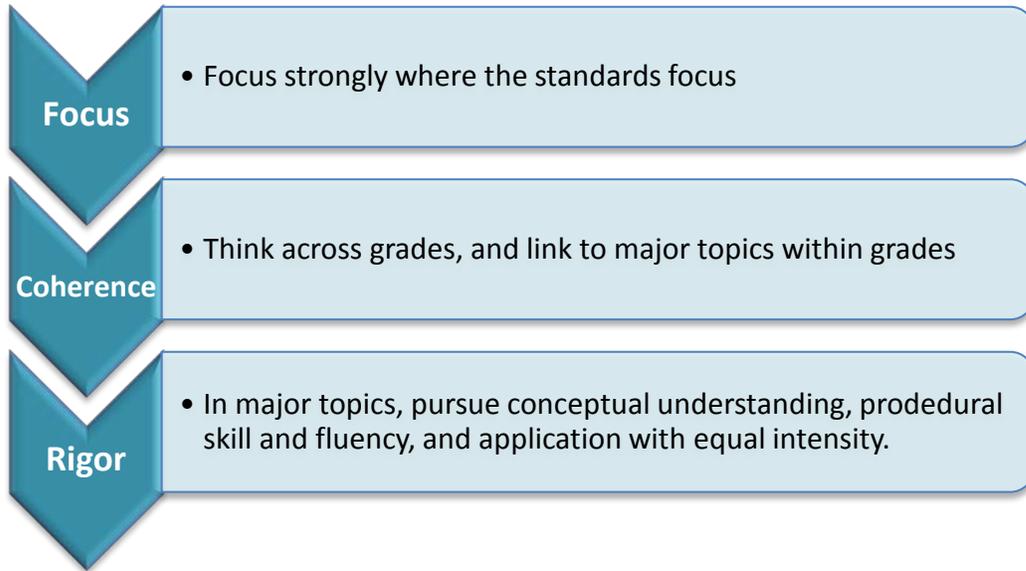
Tier 2 ratings received a “Yes” for all non-negotiable criteria (Criteria 1–4), but at least one “No” for the remaining criteria.

Tier 3 ratings received a “No” for at least one of the non-negotiable criteria.

Click below for complete grade-level reviews:

[Algebra 1 \(Tier 3\)](#)

Strong mathematics instruction contains the following elements:



Title: SpringBoard Mathematics, Algebra 1

Grade: 9

Publisher: The College Board

Copyright: 2014

Overall Rating: Tier III, Not Representing Quality

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

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

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

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

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

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

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Y/N) | JUSTIFICATION/ COMMENTS |
|---|--|---------------------|---|
| SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria to move to tier 2. | | | |
| <p>Non-Negotiable 1. FOCUS IN HIGH SCHOOL: In any single course, students and teachers using the materials as designed spend the majority of their time developing knowledge and skills that are widely applicable as prerequisites for postsecondary education.^{1, 2} For courses that do not include Geometry standards, metrics 1a and 1b must be met. For courses including Geometry standards, all three of the metrics must be met.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p>REQUIRED 1a) In any single course, students spend at least 50% of their time on Widely Applicable Prerequisites for postsecondary education.³</p> | Yes | Student work corresponds to standards written for high school math. Students spend the majority of their time completing work widely applicable as prerequisites for postsecondary education. |
| | <p>REQUIRED 1b) There are problems at a level of sophistication appropriate to high school (beyond mere review of middle school topics) that involve the application of knowledge and skills from grades 6-8 including⁴:</p> <ul style="list-style-type: none"> • Applying ratios and proportional relationships. • Applying percentages and unit conversions, e.g., in the context of complicated measurement problems involving quantities with derived or compound units (such as mg/mL, kg/m³, acre-feet, etc.). • Applying basic function concepts, e.g., by interpreting the features of a graph in the context of an applied problem. • Applying concepts and skills of geometric measurement e.g., when analyzing a diagram or schematic. • Applying concepts and skills of basic statistics and probability (see 6–8.SP). • Performing rational number arithmetic fluently. | Yes | The majority of skills used surpass the prerequisites required for 9 th grade. For example Lesson 25 describes multiplying polynomials using arrays and other methods, which is an extension of performing rational number arithmetic found in grades 6-8. |
| | <p>REQUIRED (as applicable) 1c) For courses that include standards from the Geometry conceptual category, student work in Geometry significantly involves applications/modeling as well as geometry applications that use algebra skills.⁵</p> | N/A | Not Applicable – Only standards related to Algebra are in Algebra 1, Geometry standards are designated with a G, and none are assigned to Algebra1 |

¹ Refer also to criterion #1 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

² If materials show time in both block and standard 'days,' choose either but remain consistent.

³ For more information on the Widely Applicable Prerequisites, see Table 1 on Page 8 of the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

⁴ Information excerpted from Table 1 on Page 8 of the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

⁵ Since the Geometry category itself contains relatively fewer Widely Applicable Prerequisites, this criterion is important to help foster students' college and career readiness.

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Y/N) | JUSTIFICATION/ COMMENTS |
|---|---|---------------------|---|
| SECTION I (continued): NON-NEGOTIABLE CRITERIA | | | |
| <p>Non-Negotiable 2. CONSISTENT, COHERENT CONTENT Each course’s instructional materials are coherent and consistent with the content in the standards.⁶</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | <p>REQUIRED 2a) Giving all students extensive work with course-level problems: Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.</p> | Yes | Students are provided an ample number of grade-level problems. |
| | <p>REQUIRED 2b) Relating course-level concepts explicitly to prior knowledge from earlier grades and courses: The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.</p> | No | <p>Coursework does not mention prior knowledge learned in middle school and how it is applied to the current coursework. No connections to prior knowledge from earlier grades or courses are explicitly stated in the text or course materials.</p> <p>In the Unit overviews, under “Prerequisite Skills” instead of Standards, there is a bulleted list of “Edit Me!’s. The only unit with standards listed as Prerequisite Skills is Unit 6, and it still has 2 “Edit Me!’s in the list.</p> |
| <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 expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application.⁷</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p>REQUIRED 3a) Attention to Conceptual Understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings by amply featuring high-quality conceptual problems and questions.</p> | Yes | Students are asked to explain understanding and reasoning throughout the coursework. Students are asked to explore material through problem-solving in each lesson. Students develop conceptual understanding through exploratory learning and providing justifications throughout each lesson. |
| | <p>REQUIRED 3b) Attention to Procedural Skill and Fluency: Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In higher grades, sufficient practice with algebraic operations is provided in order for students to meet all of the expectations set in the Standards as a whole.</p> | Yes | Practice sets are given for each lesson to develop procedural skill and fluency to ensure mastery of the content. |
| | <p>REQUIRED 3c) Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications/modeling. While modeling is a mathematical practice at every grade, it is more prominent and enhanced in high school with more elements of the modeling cycle present.</p> | Yes | Materials attend thoroughly to those places in the content standards where expectations for multi-step and real-world problems are explicit. Almost all lessons contain application problems related to the material of that |

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

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

| | | | |
|--|--|------------|--|
| | | | lesson. In each section, students complete word problems associated with real-world contexts as examples and during practice sets. |
| | REQUIRED 3d) Balance: The three aspects of rigor are not always treated together, and are not always treated separately | Yes | Lessons align to the three components of rigor- conceptual understanding, procedural skills and fluency, and application- as needed in each lesson based on the standard's need for each particular aspect of rigor. |

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Y/N) | JUSTIFICATION/ COMMENTS |
|--|--|---------------------|--|
| SECTION I (continued): NON-NEGOTIABLE CRITERIA | | | |
| Non-Negotiable 4. PRACTICE-CONTENT CONNECTIONS: Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice. ⁸ <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | REQUIRED 4a) The materials connect the Standards for Mathematical Practice and the Standards for Mathematical Content. | Yes | Under the CC menu, if Mathematical Practices is selected, a clickable list of the Mathematical Practices comes up. Clicking on a Mathematical Practice brings up a list of page numbers which contain problems illustrating the indicated Mathematical Practice. Clicking on the page brings up the textbook page and problem on the screen. This allows the teacher to see examples of the indicated Mathematical Practice. |
| | REQUIRED 4b) The developer provides a description or analysis, aimed at evaluators, which shows how materials meaningfully connect the Standards for Mathematical Practice to the Standards for Mathematical Content within each applicable course. | Yes | In the "To the Teacher" pages, there is a very brief description of how the Standards for Mathematical Practice are addressed in the materials. This analysis could be improved. |

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

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Y/N) | JUSTIFICATION/ COMMENTS |
|---|--|---------------------|--|
| SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY | | | |
| Additional Criterion 5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT: Materials foster focus and coherence by linking topics within grades (across domains and clusters). Courses are designed based on the content in the standards. <input type="checkbox"/> Yes <input type="checkbox"/> No | REQUIRED 5a) Materials base courses on the content specified in the standards (Algebra I, Geometry, and Algebra II). ⁹ | | Not evaluated. Non-negotiable criteria were not met. |
| | REQUIRED 5b) Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a category, or two or more categories, in cases where these connections are natural and important. ^{10, 11} | | Not evaluated. Non-negotiable criteria were not met. |
| | 5c) Materials include learning objectives that are visibly shaped by CCSSM cluster and domain headings. ¹⁰ | | Not evaluated. Non-negotiable criteria were not met. |
| | 5d) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives. ¹⁰ | | Not evaluated. Non-negotiable criteria were not met. |
| Additional Criterion 6. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL PRACTICE: Aligned materials make meaningful and purposeful connections that enhance the focus and coherence of the standards rather than detract from the focus and include additional content/skills to teach which are not included in the standards. <input type="checkbox"/> Yes <input type="checkbox"/> No | REQUIRED 6a) Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard. ¹² | | Not evaluated. Non-negotiable criteria were not met. |
| | REQUIRED 6b) Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of other concerning key course-level mathematics that is detailed in the content standards (cf. MP.3). ¹³ | | Not evaluated. Non-negotiable criteria were not met. |
| | REQUIRED 6c) Materials engage students in problem solving as a form of argument, attending thoroughly to places in the standards that explicitly set expectations for multi-step problems. ¹³ | | Not evaluated. Non-negotiable criteria were not met. |
| | 6d) Materials explicitly attend to the specialized language of mathematics. ¹³ | | Not evaluated. Non-negotiable criteria were not met. |

⁹ Refer also to criterion #3 in the HS [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

¹⁰ Refer also to criterion #4 in the HS [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

¹¹ Refer to the standards for each course found in the [Teacher Support Library](#).

¹² Refer also to criterion #7 in the HS [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

¹³ Refer also to criterion #8 in the HS [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

| CRITERIA | INDICATORS OF SUPERIOR QUALITY | MEETS METRICS (Y/N) | JUSTIFICATION/ COMMENTS |
|---|---|--|--|
| SECTION II (continued): ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY | | | |
| <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.</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p>REQUIRED 7a) Materials support the uses of technology as called for in the standards.</p> | | Not evaluated. Non-negotiable criteria were not met. |
| | <p>REQUIRED 7b) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose.</p> | | Not evaluated. Non-negotiable criteria were not met. |
| | <p>REQUIRED 7c) Design of assignments is not haphazard: exercises are given in intentional sequences.</p> | | Not evaluated. Non-negotiable criteria were not met. |
| | <p>REQUIRED 7d) There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc.</p> | | Not evaluated. Non-negotiable criteria were not met. |
| | <p>REQUIRED 7e) There are separate teacher materials that support and reward teacher study including, but not limited to: discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students.</p> | | Not evaluated. Non-negotiable criteria were not met. |
| | <p>REQUIRED 7f) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered.</p> | | Not evaluated. Non-negotiable criteria were not met. |
| | <p>7g) There is variety in the pacing and grain size of content coverage.¹⁴</p> | | Not evaluated. Non-negotiable criteria were not met. |
| | <p>7h) Lessons are thoughtfully structured and support the teacher in leading the class through the learning paths at hand, with active participation by all students in their own learning and in the learning of their classmates.</p> | | Not evaluated. Non-negotiable criteria were not met. |
| <p>7i) Manipulatives are faithful representations of the mathematical objects they represent and are connected to written methods.</p> | | Not evaluated. Non-negotiable criteria were not met. | |

¹⁴ Refer also to page 16 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

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

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

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

| FINAL EVALUATION | | | |
|---|---|-----|--|
| Compile the results for Sections I and II to make a final decision for the material under review. | | | |
| Section | Criteria | Y/N | Final Justification/Comments |
| I: Non-Negotiables | 1. Focus on Major Work | Yes | Course materials contain applicable content for the subject matter. |
| | 2. Consistent, Coherent Content | No | Review material or prior knowledge is not mentioned within the text or the material is not identified. It is hard to tell what information a student should already know and what information is required for the current grade level. |
| | 3. Rigor and Balance | Yes | Coursework provides an adequate balance of rigor as determined by each standard. |
| | 4. Practice-Content Connections | Yes | A more detailed analysis of the connections between the Standards for Mathematical Content and Standards for Mathematical Practice would be helpful. |
| II: Additional Alignment Criteria and Indicators of Quality | 5. Alignment Criteria for Standards for Mathematical Content | | Not evaluated. Non-negotiable criteria were not met. |
| | 6. Alignment Criteria for Standards for Mathematical Practice | | Not evaluated. Non-negotiable criteria were not met. |
| | 7. Indicators of Quality | | Not evaluated. Non-negotiable criteria were not met. |
| FINAL DECISION FOR THIS MATERIAL: <u>Tier III, Not representing quality</u> | | | |