Assessment 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: **Study Island Common Core Math Algebra I, Geometry, and Algebra 2** Grade: **9-11**

Publisher: **Edmentum, Inc.** 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

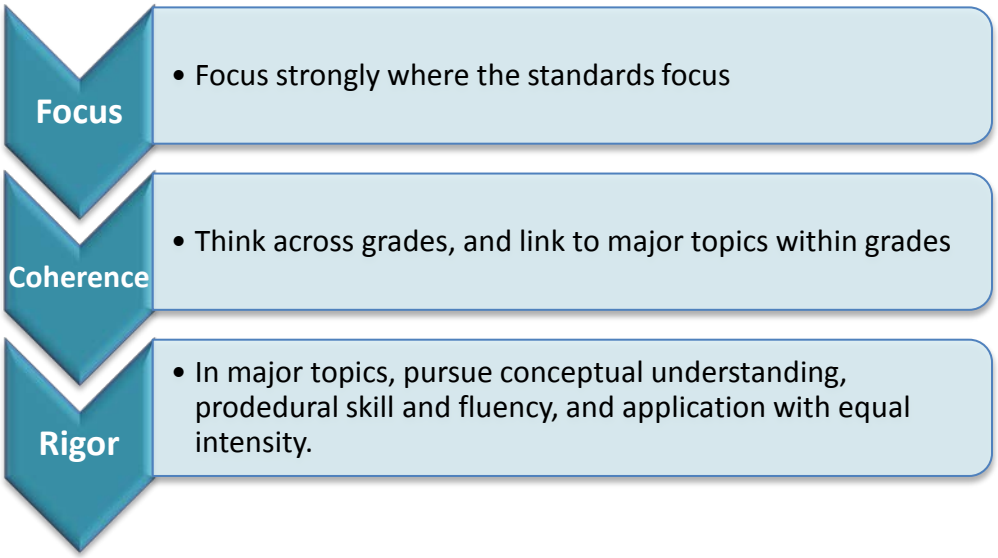
The following two indicators may be impacted:

- Focus on Major Work (Non-Negotiable)
- Focus in K-8 (Non-Negotiable)

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

Criteria	Currently in the Rubric	Next Steps for Educators
Focus on Major Work (Non-Negotiable)	This program currently is reviewed as "Yes" because the majority of points awarded in the assessments are given to content identified as widely applicable prerequisites as described by the standards.	Makes sure to review all assessments to ensure that each meets or exceeds the expected score-point distributions for the major work of the grade.
Focus in K-8 (Non-Negotiable)	This section was not reviewed.	

Strong mathematics instruction contains the following elements:



Title: **Study Island Common Core Math Algebra 1, Geometry, and Algebra 2** **Grade:** **9-11**

Publisher: **Edmentum, Inc.** **Copyright:** **2014**

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

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

STRONG	WEAK
Focus on Major Work (Non-Negotiable)	Alignment of Test Items (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.

In Section II,if there is a "Yes" for all indicators in Column 2, then the materials receive a "Yes" in Column 1. If there is a "No" for any indicator in Column 2 for Section II, then the materials receive a "No" in Column 1.

For Section III, review each indicator individually.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1– 11.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1–3), a "Yes" in Column 1 for Criteria 4 in Section II, but at least one "No" in Section III.
Tier 3 ratings receive a "No" in Column 1 in Section II or Section III.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/COMMENTS
SECTION I: NON-NEGOTIABLE CRITERIA			
Non-Negotiable 1. ALIGNMENT OF TEST ITEMS: 90% of test items and/or sets of items exhibit alignment to the full intent of the CCSSM for that grade or course[1][2] by eliciting direct, observable evidence of the degree to which a student can independently demonstrate the targeted standard(s). *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. All items and/or sets of items should reflect the metric.* ☐ Yes ☒ No	**1a)** Items and/or sets of items directly reflect the language of individual standards. • For example, 6.EE.3 puts the emphasis on applying properties of operations and generating equivalent expressions, not just mechanically simplifying. • Most items aligned to a single standard should assess the central concern of the standard in question.	**No**	In general, items reflect the language of the standards. For example, HS.A-SSE: Interpret the structure of expressions students are expected to rewrite expressions in their most simplified or factored form. Individual items, however, are not linked to standards. Items are found within topics, but the topics may be linked to more than one standard. As a result, there is no way for teachers to be sure which items are aligned with which standards or determine if individual items directly reflect the language of individual standards or if items assess the central concern of individual standards.
	1b) Items and/or sets of items align with PARCC's evidence tables for grades 3-8 and adhere to content limitations outlined in that document. All limitations for all grade K-HS provided in footnotes of the CCSSM are also followed. For example, in Grade 3 denominators for fractions are limited to 2, 3, 4, 6 and 8.	**N/A**	
	1c) The overall set of items reflect the progressions in the Standards. • For example, multiplication and division items in grade 3 emphasize equal groups, with no rate problems (grade 6 in CCSS).	**No**	Some standards are not assigned to the appropriate high school course as indicated on page 55 of the PARCC Model Content Frameworks. For example, HSF-BF.B.4, HSF-IF.C.8b, HSA-REI.C.7, HSF-IF.C.6e, HSN-RN.A.1, and HSN-RN.A.2 are included in Algebra I in this set of items, but these standards are assigned to Algebra II in the PARCC Model Content Frameworks. Also, HSG-GPE.A.2 is included in Geometry in this set of items, but this standard is assigned to Algebra II in the PARCC Model Content Frameworks. Also, (+) standards are

[1]Refer also to the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[2]See the Quality Criteria Checklist for Mathematics.

			included in Geometry and Algebra II.
	1d) Within the complete set of items, there are items which assess all levels of the content hierarchy, including cluster headings.	**No**	Individual items are not linked to standards. As a result, there is no way for teachers to be sure that all levels of the content hierarchy are assessed.
	1e) Using the number system appropriate to the grade level. • For example, in grade 3 there are some items involving fractions greater than 1; in the middle grades, arithmetic and algebra use the rational number system, not just the integers.	**Yes**	The number systems used are appropriate for the high school level. Students manipulate a variety of numbers within the real number system.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/COMMENTS
SECTION I (continued): NON-NEGOTIABLE CRITERIA			
Non-Negotiable 2. FOCUS ON MAJOR WORK*: The large majority of points in each grade K–8 are devoted to the major work of the grade, and the majority of points in each High School course are devoted to widely applicable prerequisites.[3] *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. Item banks also should reflect the proportions in the metrics.* ☐ Yes ☐ No ***As applicable to the grade level assessment being reviewed.**	**FOR GRADES K–8 ONLY** **For grades K–8**, each grade/course's assessments **meet or exceed** the following score-point distributions for the major work of the grade. • 85% of the total points in grades K–2 align exclusively to the major work of the grade. • 75% of the total points in grades 3–5 align exclusively to the major work of the grade. • 65% of the total points in grades 6–8 align exclusively to the major work of the grade.	**N/A**	
	FOR HIGH SCHOOL ONLY **For high school**, aligned assessments or sets of assessments **meet or exceed** the following score-point distribution: • 50% of the total points in high school align to content of Common Core State Standards identified as widely applicable prerequisites for a range of college majors, postsecondary programs, and careers.[4]	**Yes**	The majority of points awarded in the assessments are given to content identified as widely applicable prerequisites as described by the CCSS.

[3] Refer also to criterion #1 in K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criterion #1 in the High School Publishers' Criteriafor the Common Core State Standards for Mathematics (Spring 2013).
[4] Refer also to page 8 in the High School Publishers' Criteriafor the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/COMMENTS
SECTION I (continued): NON-NEGOTIABLE CRITERIA			
Non-Negotiable 3. FOCUS IN K–8: No item assesses topics directly or indirectly before they are introduced in the CCSSM.[5] *This criterion applies to fixed form or CAT assessments, whether a summative assessment or a set of interim/benchmark assessments. All Items also should reflect the metric.* ☐ Yes ☐ No	90% of items on an assessment address only knowledge of topics found in the CCSSM in the specified grade level. Commonly misaligned topics include, but are not limited to: • **Probability,** including chance, likely outcomes, probability models**.** (Introduced in the CCSSM in grade 7) • **Statistical distributions**, including center, variation, clumping, outliers, mean, median, mode, range, quartiles; and **statistical association or trends**, including two-way tables, bivariate measurement data, scatter plots, trend line, line of best fit, correlation. (Introduced in the CCSSM in grades 6–8; see CCSSM for specific expectations by grade level.) • **Similarity, congruence, or geometric transformations.** (Introduced in the CCSSM in grade 8) • **Symmetry** of shapes, including line/reflection symmetry, rotational symmetry. (Introduced in the CCSSM in grade 4)	**N/A**	High School standards are not separated into different grade levels, but rather different topic areas.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/COMMENTS
SECTION II: Balance			
4. RIGOR AND BALANCE: Each grade/course's assessments 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] *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. Item banks also should reflect the proportions in the metrics.* ☐ Yes ☐ No	**4a)*For Conceptual Understanding:*** • ***K–High School*:** At least 20% of the total score-points on the assessment(s) for each grade or course explicitly require students to demonstrate conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings.		Not evaluated. Non-negotiable criteria were not met.

	4b) *For Procedural Skill and Fluency:*
	• ***K–6:*** At least 20% of the score-points on the assessment(s) for each grade explicitly assess procedural skill and fluency requirements in the Standards.
	• ***7–8 and High School:*** At least 20% of the score-points on the assessment(s) for each grade or course explicitly assess procedural skill and fluency/culminating standards.
	  • Grade 7: 7.EE.3, 7.EE.4, 7.NS.1
	  • Grade 8: 8.EE.7, 8.G.9
	  • High School: See PARCC Model Content Frameworks, pages 46, 49, 53, 54
			Not evaluated. Non-negotiable criteria were not met.

	4c) *For Applications* • ***K–5:***At least 20% of the total score-points on the assessment(s) for each grade explicitly assess solving single- or multi-step word problems. • ***6–8:***At least 25% of the total score points on the assessment(s) for each grade explicitly assess solving single- and multi-step word problems and simple models. • ***High School:***At least 30% of the total score-points on the assessment(s) for each high school course explicitly assess single- and multi-step word problems, simple models, and substantial modeling/application problems.		Not evaluated. Non-negotiable criteria were not met.

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

	4d) ***Grades 3-High School***:PARCC Type II and Type III Performance-Based Tasks [7] • At least two items on each assessment for each grade or course align with PARCC's Type II (Subclaim C) Evidence Statements. One item is a 3-point item and the second a 4-point item. A rubric for hand scoring any part of an item that cannot be machine scored is provided. • At least two items on each assessment for each grade or course align with PARCC's Type III (Subclaim D) Evidence Statements. One item is a 3-point item and the second a 6-point item. A rubric for hand scoring any part of an item that cannot be machine scored is provided.		Not evaluated. Non-negotiable criteria were not met.

[7]See page 2 of PARCC's Evidence Tables - High Level Overview and the PBA Evidence tables for each grade. An example of a Subclaim C evidence statement is 4.C.2. An example of a Subclaim D evidence statement is 4.D.1. To view PARCC's prototype Type II and Type III items, go to http://www.parcconline.org/samples/mathematics/grade-4-mathematics.

ADDITIONAL INDICATORS OF QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/COMMENTS
SECTION III:ADDITIONAL INDICATORS OF QUALITY		
5. Practice-Content Connections. Each grade/course's assessments include items that meaningfully connect the Standards for Mathematical Content and Standards for Mathematical Practice. However, not all items need to align to a Standard for Mathematical Practice. And there is no requirement to have an equal balance among the Standards for Mathematical Practice in any set of items or test forms.[8]		Not evaluated. Non-negotiable criteria were not met.
6. Assessing Supporting Content. Assessment of supporting content enhances focus and coherence simultaneously by engaging students in the major work of the grade or course.[9]		Not evaluated. Non-negotiable criteria were not met.
7.Addressing Every Standard for Mathematical Practice. Every Standard for Mathematical Practice is represented on the assessment(s) for each grade or course.		Not evaluated. Non-negotiable criteria were not met.
8.Expressing Mathematical Reasoning. There are sufficiently many points on the assessment(s) for each grade or course that explicitly assess expressing and/or communicating mathematical reasoning.		Not evaluated. Non-negotiable criteria were not met.
9.Constructing Forms Without Cueing Solution Processes. Item sequences do not cue the student to use a certain solution process during problem solving and assessments include problems requiring different types of solution processes within the same section.		Not evaluated. Non-negotiable criteria were not met.
10. Calling for Variety in Student Work. Items require a variety in what students produce. For example, items require students to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc.[10]		Not evaluated. Non-negotiable criteria were not met.
11. Quality Materials. The assessment items, answer keys, and documentation are free from mathematical errors.		Not evaluated. Non-negotiable criteria were not met.

[8] Refer also to criterion #7 in the K–8 Publishers' Criteriafor the Common Core State Standards for Mathematics (Spring 2013) and criteria #5 High School Publishers' Criteriafor the Common Core State Standards for Mathematics (Spring 2013).
[9] Refer also to criterion #3 in the K–8 Publishers' Criteriafor the Common Core State Standards for Mathematics (Spring 2013).
[10] Refer also to criterion #9 in the K–8 Publishers' Criteriafor the Common Core State Standards for Mathematics (Spring 2013) and criteria #7 High School Publishers' Criteriafor the CCSSM (Spring 2013).

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1-3, a "Yes" in Column 1 for Criteria 4, and a "Yes" for all additional indicators 5-11.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 3), a "Yes" in Column 1 for Criteria 4, but at least one "No" for additional indicators 5-11.
Tier 3 ratings receive a "No" in Column 1 for at least criteria in Section II or Section III.

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. Alignment of Test Items	**No**	Individual items are not linked to standards. As a result, there is no way for teachers to be sure which items are aligned with which standards or determine if individual items directly reflect the language of individual standards or if items assess the central concern of individual standards. Some standards are not assigned to the appropriate high school course and (+) standards are included in Geometry and Algebra II.
	2. Focus on Major Work	**Yes**	The large majority of points in each grade K–8 are devoted to the major work of the grade, and the majority of points in each High School course are devoted to widely applicable prerequisites.
	3. Focus in K-8	**N/A**	
II. Balance	4. Rigor and Balance		Not evaluated. Non-negotiable criteria were not met.
II: Additional Indicators of Quality	5. Practice-Content Connections		Not evaluated. Non-negotiable criteria were not met.
	6. Assessing Supporting Content		Not evaluated. Non-negotiable criteria were not met.
	7. Addressing Every Standard for Mathematical Practice		Not evaluated. Non-negotiable criteria were not met.
	8. Expressing Mathematical Reasoning		Not evaluated. Non-negotiable criteria were not met.
	9. Constructing Forms Without Cueing Solution Processes		Not evaluated. Non-negotiable criteria were not met.
	10. Calling for Variety in Student Work		Not evaluated. Non-negotiable criteria were not met.
	11. Quality Materials		Not evaluated. Non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL: <u>Tier III, Not representing quality</u>			