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: **Algebra I, Geometry, Algebra II** Grade: **9-11**

Publisher: **Eureka Math** Copyright: **2013**

Overall Rating: **Tier I, Exemplifies 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

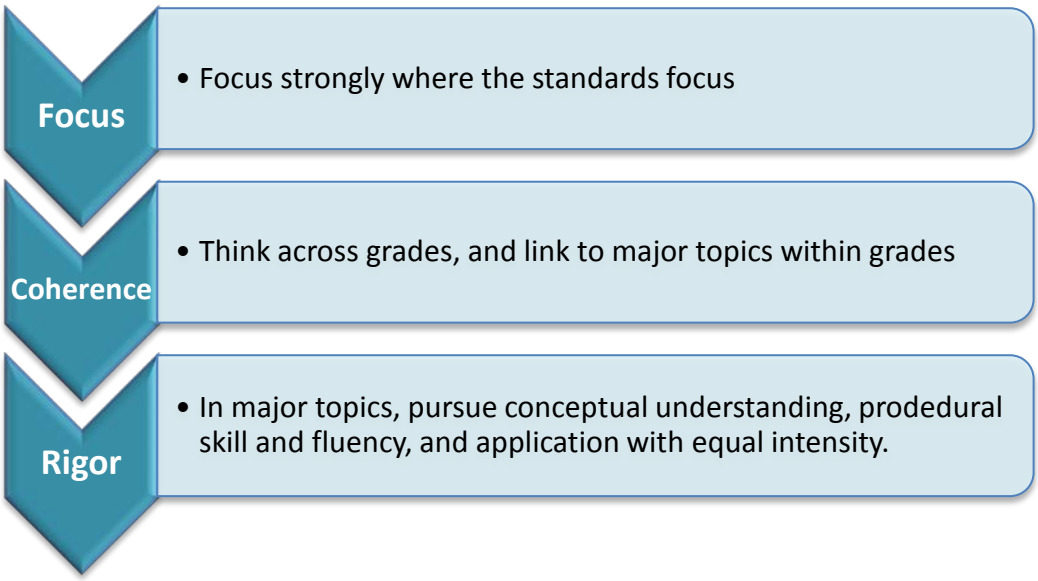
The following two indicators may be impacted:

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

This review remains a Tier 1 rating. As a result of these changes, the following chart identifies the potential impact on specific elements in the current review. The LDOE recommends that district curriculum staff, principals, and teachers take these findings into consideration when using these instructional materials.

Criteria	Currently in the Rubric	Next Steps for Educators
Focus on Major Work (Non-Negotiable)	This program currently is reviewed as "Yes" for these criteria because the materials devote the majority of class time to completing work widely applicable as prerequisites for postsecondary education.	Make sure to review all assessment materials to ensure alignment to new clarifications/limitations and the revised, as well as, the placement of standards by grade/course.
Consistent, Coherent Content (Non-Negotiable)	This program currently is reviewed as "Yes" for these criteria because the materials were consistently found to connect the major content to the support content in meaningful ways at all grade levels. Throughout the modules, teachers and students can see what their specific responsibility is for the current year. Coursework refers to prior knowledge and how it applies to the current coursework.	Make sure to review instructional materials focused on new supporting content (e.g., money in Grades K and 1) to ensure it supports the major work of the grade/course.

Strong mathematics instruction contains the following elements:



Title: **Algebra I, Geometry, Algebra II** **Grade:** **9-11**

Publisher: **Eureka Math** **Copyright:** **2013**

Overall Rating: **Tier I, Exemplifies 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)	
Alignment Criteria for Standards for Mathematical Content	
Alignment Criteria for Standards for Mathematical Practice	
Indicators of Quality	

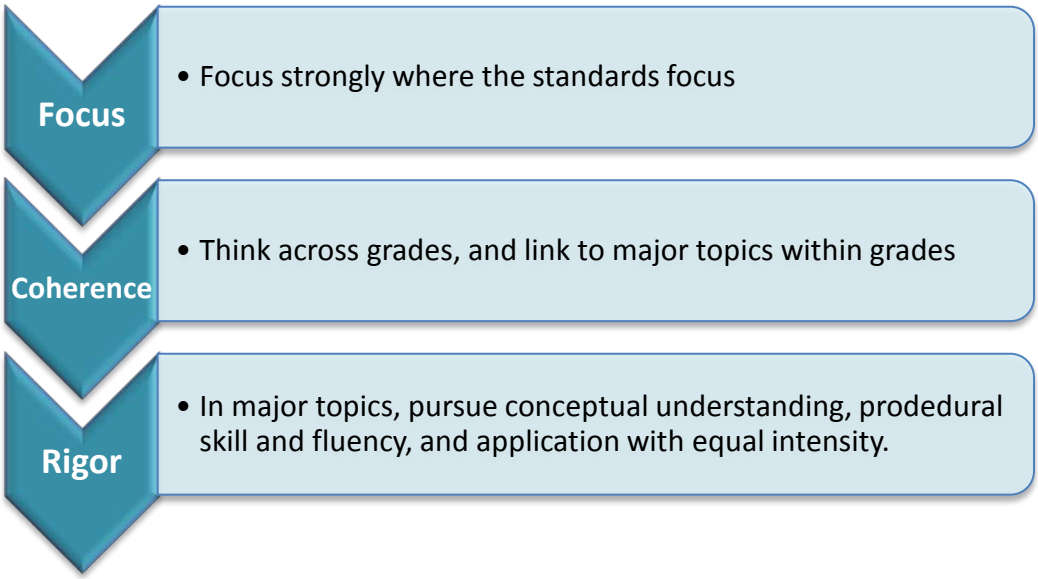
Each set of submitted materials was evaluated for alignment with the standards beginning with a review of the indicators for the non-negotiable criteria. If those criteria were met, a review of the other criteria ensued.

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 1) Geometry (Tier 1) Algebra 2 (Tier 1)

Strong mathematics instruction contains the following elements:



Title: Algebra 1 **Grade:** 9

Publisher: Eureka Math **Copyright:** 2013

Overall Rating: Tier I, Exemplifies 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)	
Alignment Criteria for Standards for Mathematical Content	
Alignment Criteria for Standards for Mathematical Practice	
Indicators of Quality	

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria to move to tier 2.			
Non-Negotiable 1. FOCUS IN HIGH SCHOOL: 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. ☐ Yes ☐ No	**REQUIRED** **1a)** In any single course, students spend at least 50% of their time on **Widely Applicable Prerequisites** for postsecondary education.[3]	**Yes**	Student work corresponds to standards written for high school math. Students spend the majority of their time completing work widely applicable as prerequisites for postsecondary education. Modules cite standards used per module and integration of standards.
	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 including[4]: • 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/m^3, 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**	Skills used surpass the prerequisites required for 9th grade. For example Lessons 1 and 2 focuses on piece-wise functions and quadratics, these topics build upon knowledge learned in 8th grade involving linear functions.
	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]	**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			
Non-Negotiable 2. CONSISTENT, COHERENT CONTENT Each course's instructional materials are coherent and consistent with the content in the standards.[6] ■ Yes ☐ No	**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.	**Yes**	Previous-grades review and previous-course review is clearly identified as such to the teacher as "foundational standard" course work and teachers and students can see what their specific responsibility is for the current year. The current year's standards are marked as "focus standards".
	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.	**Yes**	Coursework indicates prior knowledge learned in middle school and how it applies to the current coursework. For example: "You have learned in middle school to find equations for straight line graphs such as the ones that appear in Lesson 1, but as we saw in Lessons 2 and 3, not all graphs are linear. It would be nice to develop the machinery for developing equations for those too, if at all possible."
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] ■ Yes ☐ No	**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.	**Yes**	Students are asked to explain understanding and reasoning throughout the coursework. Students are often asked to represent algebraic equations with a drawing. If a student can visually represent an equation with a drawing, a student must understand the concept behind how an equation is created and what it means.
	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.	**Yes**	Practice sets are given for each lesson to develop procedural skill and fluency to mastery of the content.
	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.	**Yes**	Materials attend thoroughly to those places in the content standards where expectations for multi-step and real-world problems are explicit. Majority of lessons provide opportunities to solve problems related to the standards.
	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.

[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).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION I (continued): NON-NEGOTIABLE CRITERIA			
Non-Negotiable 4. PRACTICE-CONTENT CONNECTIONS: Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.[8] ■ Yes ☐ No	**REQUIRED** **4a)** The materials connect the Standards for Mathematical Practice and the Standards for Mathematical Content.	**Yes**	Mathematical practices are listed at the beginning of each module, and mathematical practices are also identified during each lesson when used.
	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**	Provides a justification when each Mathematical Practice is used and how it relates the lesson content.

[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.	**REQUIRED** **5a)** Materials base courses on the content specified in the standards (Algebra I, Geometry, and Algebra II). [9]	**Yes**	Each Module has CCSS standards listed at the beginning that will be used for the entire module. Materials address the CCSS standards listed.
	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]	**Yes**	Multiple standards are addressed in each unit from multiple clusters and domains.
	5c) Materials include learning objectives that are visibly shaped by CCSSM cluster and domain headings.[10]	**Yes**	Student outcomes are listed for each lesson. Outcomes are aligned with CCSS.
☐ Yes ☐ No	**5d)** Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives.[10]	**Yes**	Coursework is focused on the standards used to address each lesson. Lessons engage students in understanding material by connecting coherently to previous material addressed by the standards. Each standard is addressed using the three aspects of rigor: conceptual understanding, procedural fluency, and application
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.	**REQUIRED** **6a)** Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.[12]	**Yes**	Materials attend to the full meaning of each practice standard. When mathematical practices are listed in a lesson an explanation is given to support the practice in relation to content. In one example, MP1 is addressed providing students with multiple opportunities to understand and apply a variety of mathematical skills as part of problem solving. Skills students must apply in this example include (use of basic math skills, interpreting scales, graphs, and algebraic formulas using multimedia as resources).
☐ Yes ☐ No	**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]	**Yes**	Materials prompt students to construct viable arguments and critique the arguments of others. For example, MP3, is addressed in Module 1 of both Lessons 1 and 5 where students are prompted to construct arguments and critiques based on questions that are designed to improve the student's mathematical reasoning skill. Opportunities for classroom discussion are used to enhance the student's attention to detail and ability to explain and justify course-level appropriate equations and mathematical approaches.

[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).

	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]	**Yes**	Students are involved in problem solving, however not all problem solving is framed as an argument.
	6d) Materials explicitly attend to the specialized language of mathematics.[13]	**Yes**	Appropriate mathematical terminology is used where needed.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION II (continued): ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
Additional Criterion 7. INDICATORS OF QUALITY: Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the standards. ■ Yes ☐ No	**REQUIRED** **7a)** Materials support the uses of technology as called for in the standards.	**Yes**	Students are asked to support answers using various forms of technology as needed. In one example, a visual representation of a curve (in this case a line) is used to demonstrate all possible solutions, including those with fractional or irrational values. Then students are to use a graphing calculator or graphing software to graph the line and find the value of the radical expression.
	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.	**Yes**	This coursework uses terminology in an opposite fashion of the rubric used for this evaluation [e.g., *problems* (appear as exercises in lessons through which students learn math) and *exercises* (appear as problem sets designed to allow students to practice their new learning)]. See Exercise 2 Lesson Number 15 Module 1. Other *exercises* appear the same. Each problem or exercise has a purpose.
	REQUIRED **7c)** Design of assignments is not haphazard: exercises are given in intentional sequences.	**Yes**	The information given proceeds in a logical order.
	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.	**Yes**	Students are asked to produce results and explain reasoning when necessary.
	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.	**Yes**	Teacher materials are identified as separate documents.
	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.	**Yes**	Support through group collaboration is evident and suggested through the coursework. Student pairing ensures ELL and fluent users of the language interact on specific questions in a nonthreatening environment with group solutions and strategies then shared with the whole class.

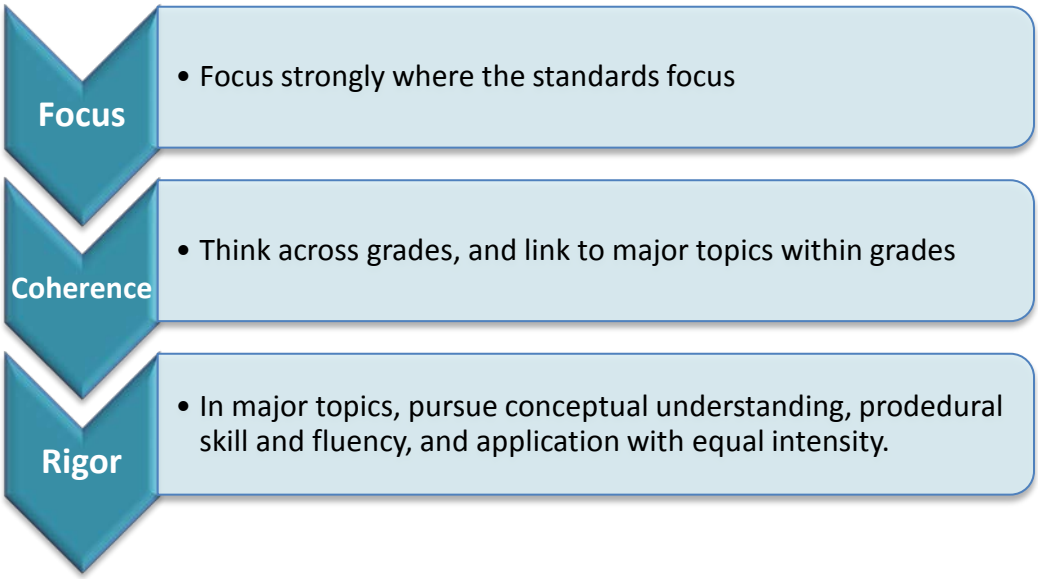
	7g) There is variety in the pacing and grain size of content coverage. [14]	**Yes**	Content is covered in various lengths. Some standards take days to cover, while some standards may take weeks.
	7h) Lessons are thoughtfully structured and support the teacher in leading the class through the learning paths at hand, with active participation by all students in their own learning and in the learning of their classmates.	**Yes**	The lessons are aligned to what the students have learned in prior grade levels, which allows the teacher to present the instructional content where students are able to actively participate in discovery learning. Lessons also provide various strategies to support teacher delivery.
	7i) Manipulatives are faithful representations of the mathematical objects they represent and are connected to written methods.	**Yes**	The manipulatives used are relevant to the development of each mathematical object they represent. The manipulatives used are connected to the written methods for each activity.

[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	**Yes**	Course materials are consistent, coherent, and contain applicable content for the subject matter.
	3. Rigor and Balance	**Yes**	Coursework provides an adequate balance of rigor as determined by each standard.
	4. Practice-Content Connections	**Yes**	Coursework focuses on standards appropriate for the grade level.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	**Yes**	Materials indicated by the coursework focus on the standards, connect material to content to foster coherence among topics, and utilize components of rigor as determined by the standards.
	6. Alignment Criteria for Standards for Mathematical Practice	**Yes**	Materials emphasize mathematical practices and connections to content. Mathematical practices are integrated within the coursework and encourage students to create viable arguments and persevere in problem solving.
	7. Indicators of Quality	**Yes**	Materials support student technology use. Standards are taught in various units of time, dependent upon standard topic. ELL learners are able to immerse in material by incorporation of student groups. Appropriate manipulatives are utilized when necessary and correspond to content.
FINAL DECISION FOR THIS MATERIAL: <u>Tier I, Exemplifies quality</u>			

Strong mathematics instruction contains the following elements:



Title: Geometry **Grade:** 10

Publisher: Eureka Math **Copyright:** 2013

Overall Rating: Tier I, Exemplifies 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)	
Alignment Criteria for Standards for Mathematical Content	
Alignment Criteria for Standards for Mathematical Practice	
Indicators of Quality	

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria to move to tier 2.			
Non-Negotiable 1. FOCUS IN HIGH SCHOOL: 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. ■ Yes ☐ No	**REQUIRED** **1a)**In any single course, students spend at least 50% of their time on **Widely Applicable Prerequisites** for postsecondary education.[3]	**Yes**	Student work corresponds to standards written for high school math. Students spend the majority of their time completing work widely applicable as prerequisites for postsecondary education. Modules cite standards used per module at the beginning of each module. Standards are fully integrated throughout each module.
	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 including[4]: • 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/m^3, 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**	Skills used surpass the prerequisites required for 9th grade. For example, Module 2 Lesson 2 extends knowledge acquired in middle school regarding ratios and proportions to make scale drawings (dilations) using the ratio method.
	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]	**Yes**	Student work significantly involves application/modeling as well as geometry applications. Lessons feature geometry application problems that use algebra skills to solve real-world applications.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION I (continued): NON-NEGOTIABLE CRITERIA			
Non-Negotiable 2. CONSISTENT, COHERENT CONTENT Each course's instructional materials are coherent and consistent with the content in the standards.[6] ☐ Yes ☐ No	**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.	**Yes**	Previous grades review and previous course review is clearly identified as such to the teacher. At the beginning of each Module, standards from previous grades and courses are listed as "foundational standards," and the current year's standards are marked as "focus standards." Throughout the modules, teachers and students can see what their specific responsibility is for the current year.
	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.	**Yes**	Coursework indicates prior knowledge learned in middle school and how it applies to the current coursework. For example, Module 1 Lesson 6 states that "The exercise will remind students of the basics of determining missing angles that they learned in middle school. Discuss the facts that student recall and use these as a starting point for the lesson." This lesson also includes several pages of "Key Facts and Discoveries from Earlier Grades" that will be expanded upon in this course.
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] ☐ ☐	**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.	**Yes**	Students are asked to explain understanding and reasoning throughout the coursework. Students are often asked to represent geometric ideas using constructions or drawings. Dynamic geometry software is also used to demonstrate and explain geometric conceptual ideas.
	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.	**Yes**	Practice sets are given for each lesson to develop procedural skill and fluency to mastery of the content.

[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).

Yes No	**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.	**Yes**	Materials attend thoroughly to those places in the content standards where expectations for multi - step and real -world problems are explicit. Majority of lessons provide opportunities to solve problems related to the standards
	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] ■ Yes ☐ No	**REQUIRED** **4a)** The materials connect the Standards for Mathematical Practice and the Standards for Mathematical Content.	**Yes**	Mathematical practices are listed at the beginning of each module, and mathematical practices are also identified during each lesson when used (e.g., see pg. 5 of Module 1.7).
	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**	The materials provide a justification when each Mathematical Practice is used and how it relates the lesson content.

[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. ■ Yes ☐ No	**REQUIRED** **5a)** Materials base courses on the content specified in the standards (Algebra I, Geometry, and Algebra II).[9]	**Yes**	Each Module has CCSS listed at the beginning that will be used for the entire module. Materials address the CCSS listed, and the CCSS listed are the content specified for Geometry.
	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]	**Yes**	Problems and activities connect clusters, domains, and categories when appropriate. For example, Module 3 Topic B connects HSG-GMD.A, HSG-GMD.B, and HSG-MG.
	5c) Materials include learning objectives that are visibly shaped by CCSSM cluster and domain headings.[10]	**Yes**	Learning objectives are clearly shaped by CCSSM cluster headings. For example, Module 1 Lesson 19 is clearly shaped by HSG-CO.B.
	5d) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives.[10]	**Yes**	Coursework is focused on the standards addressed in each lesson. Lessons engage students in understanding material by connecting coherently to previous material addressed by the standards. Each standard is addressed using the appropriate aspects of rigor: conceptual understanding, procedural fluency, and application.
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	**REQUIRED** **6a)** Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.[12]	**Yes**	Materials attend to the full meaning of each practice standard. When mathematical practices are listed in a lesson an explanation is given to support the practice in relation to content (e.g. Module 4 Lesson 1 page 12). Practices standards are fully integrated and discussed in lessons and modules.

[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).

the focus and include additional content/skills to teach which are not included in the standards. ■ Yes ☐ No	**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]	**Yes**	Materials prompt students to construct viable arguments and critique the arguments of others (e.g. Module 4 Lesson 1 page 17).
	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]	**Yes**	Students are involved in multi-step problem solving throughout the modules.
	6d) Materials explicitly attend to the specialized language of mathematics.[13]	**Yes**	Appropriate mathematical terminology and geometric vocabulary is used where needed.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION II (continued): ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
Additional Criterion 7. INDICATORS OF QUALITY: 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.	**REQUIRED** **7a)** Materials support the uses of technology as called for in the standards.	**Yes**	Students are asked to support answers using various forms of technology as needed. Teachers are also encouraged throughout various modules to model geometry concepts using dynamic geometry software to reinforce or develop concepts as determined by the standards.
■ Yes ☐ No	**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.	**Yes**	This coursework uses terminology in an opposite fashion of the rubric used for this evaluation [e.g., problems (appear as exercises in lessons through which students learn math) and exercises (appear as problem sets designed to allow students to practice their new learning)]. Each problem or exercise has a purpose.
	REQUIRED **7c)** Design of assignments is not haphazard: exercises are given in intentional sequences.	**Yes**	The information given proceeds in a logical order.
	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.	**Yes**	Students are asked to produce results and explain reasoning when necessary.
	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.	**Yes**	Teacher materials are identified as separate documents.
	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.	**Yes**	Support through group collaboration is evident and suggested through the coursework. Student pairing ensures ELL and fluent users of the language interact on specific questions in a nonthreatening environment with group solutions and strategies then shared with the

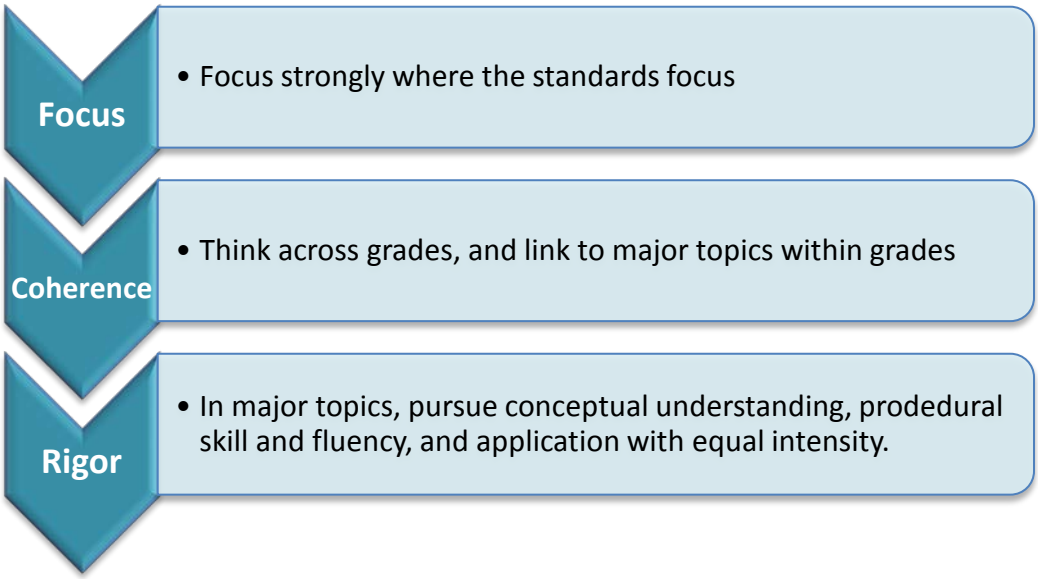
			whole class.
	7g) There is variety in the pacing and grain size of content coverage.[14]	**Yes**	There is variety in the amount of time dedicated to individual CCSS. Some standards take days to cover while some standards may take weeks.
	7h) Lessons are thoughtfully structured and support the teacher 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.	**Yes**	The lessons are aligned to what the students have learned in prior grade levels which allows the teacher to present the instructional content where students are able to actively participate in discovery learning. Lessons also provide various strategies to support teacher delivery.
	7i) Manipulatives are faithful representations of the mathematical objects they represent and are connected to written methods.	**Yes**	The manipulatives used are relevant to the development of each mathematical object they represent. The manipulatives used are connected to the written methods for each activity.

[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	**Yes**	Course materials are consistent, coherent, and contain applicable content for the subject matter.
	3. Rigor and Balance	**Yes**	Coursework provides an adequate balance of rigor as determined by each standard.
	4. Practice-Content Connections	**Yes**	Mathematical practices are listed at the beginning of each module, and mathematical practices are also identified during each lesson when used.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	**Yes**	Materials address the CCSS listed, and the CCSS listed are the content specified for Geometry. Problems and activities connect clusters, domains, and categories when appropriate.
	6. Alignment Criteria for Standards for Mathematical Practice	**Yes**	Materials emphasize mathematical practices and connections to content. Mathematical practices are integrated within the coursework and encourage students to create viable arguments and persevere in problem solving.
	7. Indicators of Quality	**Yes**	Materials support student technology use. Standards are taught in various units of time dependent upon standard topic. ELL learners are able to immerse in material by incorporation of student groups. Appropriate manipulatives are utilized when necessary and correspond to content.
FINAL DECISION FOR THIS MATERIAL: <u>Tier I, Exemplifies quality</u>			

Strong mathematics instruction contains the following elements:



Title: Algebra 2 **Grade:** 11

Publisher: Eureka Math **Copyright:** 2013

Overall Rating: Tier I, Exemplifies 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)	
Alignment Criteria for Standards for Mathematical Content	
Alignment Criteria for Standards for Mathematical Practice	
Indicators of Quality	

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria to move to tier 2.			
Non-Negotiable 1. FOCUS IN HIGH SCHOOL: 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. ■ Yes ☐ No	**REQUIRED** **1a)**In any single course, students spend at least 50% of their time on **Widely Applicable Prerequisites** for postsecondary education.[3]	**Yes**	Student work corresponds to standards written for high school math. Students spend the majority of their time completing work widely applicable as prerequisites for postsecondary education. Modules cite standards used per module at the beginning of each module. Standards are fully integrated throughout each module.
	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 including[4]: • 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/m^3, 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**	Skills used surpass the prerequisites required for 9th grade. For example, students are introduced to basic function concepts in middle school. In module 3 of the coursework, students are introduced to and work with exponential and logarithmic functions.
	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]	**N/A**	N/A

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION I (continued): NON-NEGOTIABLE CRITERIA			
Non-Negotiable 2. CONSISTENT, COHERENT CONTENT Each course's instructional materials are coherent and consistent with the content in the standards.[6] ☐ Yes ☐ No	**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.	**Yes**	Previous grades review and previous course review is clearly identified as such to the teacher. At the beginning of each Module, standards from previous grades and courses are listed as "foundational standards," and the current year's standards are marked as "focus standards." Throughout the modules, teachers and students can see what their specific responsibility is for the current year.
	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.	**Yes**	Coursework indicates prior knowledge learned in middle school and how it applies to the current coursework. In Module 1 Lesson 1 the material states "This gives you a chance to evaluate how much your students recall from Grade 9. The lesson starts with discussions of expressions, polynomials, sequences, and equations. In this lesson, students continue the theme that began in Grade 6 of evaluating and building expressions."
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] ☐ Yes ☐ No	**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.	**Yes**	Students are asked to explain understanding and reasoning throughout the coursework. Students are asked to explain their reasoning and demonstrate content using a variety of mathematical concepts and models. Students are asked to conceptualize material using only variables to generalize concepts.
	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.	**Yes**	Practice sets are given for each lesson to develop procedural skill and fluency to mastery of the content.
	REQUIRED	**Yes**	Materials attend thoroughly to those places in

[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).

	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.		the content standards where expectations for multi - step and real -world problems are explicit. Majority of lessons provide opportunities to solve problems related to the standards.
	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] ☐ Yes ☐ No	**REQUIRED** **4a)** The materials connect the Standards for Mathematical Practice and the Standards for Mathematical Content.	**Yes**	Mathematical practices are listed at the beginning of each module, and mathematical practices are also identified during each lesson when used (e.g., see pg. 14 of Module 1.1).
	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**	Provides a justification when each Mathematical Practice is used and how it relates the lesson content.

[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. ☐ Yes ☐ No	**REQUIRED** **5a)** Materials base courses on the content specified in the standards (Algebra I, Geometry, and Algebra II).[9]	**Yes**	Each Module has CCSS listed at the beginning that will be used for the entire module. Materials address the CCSS listed, and the CCSS listed are the content specified for Algebra II.
	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]	**Yes**	Problems and activities connect clusters, domains, and categories when appropriate. For example, Module 1 Topic A connects HSA-SSE.A and HSA-APR.C.
	5c) Materials include learning objectives that are visibly shaped by CCSSM cluster and domain headings.[10]	**Yes**	Learning objectives are clearly shaped by CCSSM cluster headings. For example, Module 1 Lesson 14 is clearly shaped by HSA-APR.B.
	5d) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives.[10]	**Yes**	Coursework is focused on the standards used to address each lesson. Lessons engage students in understanding material by connecting coherently to previous material addressed by the standards. Each standard is addressed using the three aspects of rigor: conceptual understanding, procedural fluency, and application.
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	**REQUIRED** **6a)**Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.[12]	**Yes**	Materials attend to the full meaning of each practice standard. When mathematical practices are listed in a lesson an explanation is given to support the practice in relation to content (e.g. Module 1 Lesson 14 page 150). Practices standards are fully integrated and discussed in lessons and modules.
	REQUIRED **6b)**Materials provide sufficient opportunities for students to construct viable	**Yes**	Materials prompt students to construct viable arguments and critique the arguments

[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).

included in the standards. ■ Yes ☐ No	arguments and critique the arguments of other concerning key course-level mathematics that is detailed in the content standards (cf. MP.3).[13]		of others. For example, MP.3 is addressed in Module 2 as students are routinely asked to support each claim with evidence. Students are often asked to model concepts using graphs and formulas for trigonometric functions.
	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]	**Yes**	Students are involved in problem solving, however not all problem solving is framed as an argument.
	6d) Materials explicitly attend to the specialized language of mathematics.[13]	**Yes**	Appropriate mathematical terminology is used where needed.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Y/N)	JUSTIFICATION/ COMMENTS
SECTION II (continued): ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
Additional Criterion 7. INDICATORS OF QUALITY: 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.	**REQUIRED** **7a)**Materials support the uses of technology as called for in the standards.	**Yes**	Students are asked to support answers using various forms of technology as needed. Students and teachers are encouraged to use the graphing calculator, Wolfram Alpha, and Geometer's Sketchpad as needed for content presentations and explorations. Students create, use, and view a variety of technology throughout the coursework.
☒ Yes ☐ No	**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.	**Yes**	This coursework uses terminology in an opposite fashion of the rubric used for this evaluation [e.g., problems (appear as exercises in lessons through which students learn math) and exercises (appear as problem sets designed to allow students to practice their new learning)]. Each problem or exercise has a purpose.
	REQUIRED **7c)**Design of assignments is not haphazard: exercises are given in intentional sequences.	**Yes**	The information given proceeds in a logical order.
	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.	**Yes**	Students are asked to produce results and explain reasoning when necessary.
	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.	**Yes**	Teacher materials are identified as separate documents.
	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.	**Yes**	Support through group collaboration is evident and suggested through the coursework. Student pairing ensures ELL and fluent users of the language interact on specific questions in a nonthreatening environment with group

			solutions and strategies then shared with the whole class.
	7g) There is variety in the pacing and grain size of content coverage.[14]	**Yes**	There is variety in the amount of time dedicated to individual CCSS. Some standards take days to cover while some standards may take weeks.
	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.	**Yes**	The lessons are aligned to what the students have learned in prior grade levels which allows the teacher to present the instructional content where students are able to actively participate in discovery learning. Lessons also provide various strategies to support teacher delivery.
	7i) Manipulatives are faithful representations of the mathematical objects they represent and are connected to written methods.	**Yes**	The manipulatives used are relevant to the development of each mathematical object they represent. The manipulatives used are connected to the written methods for each activity.

[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	**Yes**	Course materials are consistent, coherent, and contain applicable content for the subject matter.
	3. Rigor and Balance	**Yes**	Coursework provides an adequate balance of rigor as determined by each standard.
	4. Practice-Content Connections	**Yes**	Mathematical practices are listed at the beginning of each module, and mathematical practices are also identified during each lesson when used.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	**Yes**	Materials address the CCSS listed, and the CCSS listed are the content specified for Algebra II. Problems and activities connect clusters, domains, and categories when appropriate.
	6. Alignment Criteria for Standards for Mathematical Practice	**Yes**	Materials emphasize mathematical practices and connections to content. Mathematical practices are integrated within the coursework and encourage students to create viable arguments and persevere in problem solving.
	7. Indicators of Quality	**Yes**	Materials support student technology use. Standards are taught in various units of time, dependent upon standard topic. ELL learners are able to immerse in material by incorporation of student groups. Appropriate manipulatives are utilized when necessary and correspond to content.
FINAL DECISION FOR THIS MATERIAL: <u>Tier I, Exemplifies quality</u>			