

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: **AMSCO Math Algebra 1, Geometry, and Algebra 2**

Grade: **9-11**

Publisher: **Perfection Learning Corporation**

Copyright: **2015**

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

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

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

The following two indicators may be impacted:

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

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

Criteria	Currently in the Rubric	Next Steps for Educators
Focus on Major Work (Non-Negotiable)	This program currently is reviewed as “No” for this criterion because the standards representing major work are only targeted by 25-59% of the materials. In addition, there are assessment items aligned to standards, which are not introduced until courses beyond the grade level.	Since these materials received a “No” for this indicator, the current weakness will likely remain and should be addressed by adjusting or supplementing with stronger programs.
Consistent, Coherent Content (Non-Negotiable)	This program currently is reviewed as “Yes” for this criterion because meaningful connections are made between supporting content and major work for the course. Materials make natural and important connections across domains as well as across clusters within domains.	Make sure to review instructional materials focused on new supporting content (e.g., probability in Geometry) to ensure it supports the major work of the grade/course.

Strong mathematics instruction contains the following elements:



Focus strongly where the standards focus.



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



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

Title: **AMSCO Math Algebra 1, Geometry, and Algebra 2**

Grade/Course: **Algebra 1, Geometry, and Algebra 2**

Publisher: **Perfection Learning Corporation**

Copyright: **2015**

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

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

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

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

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

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

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

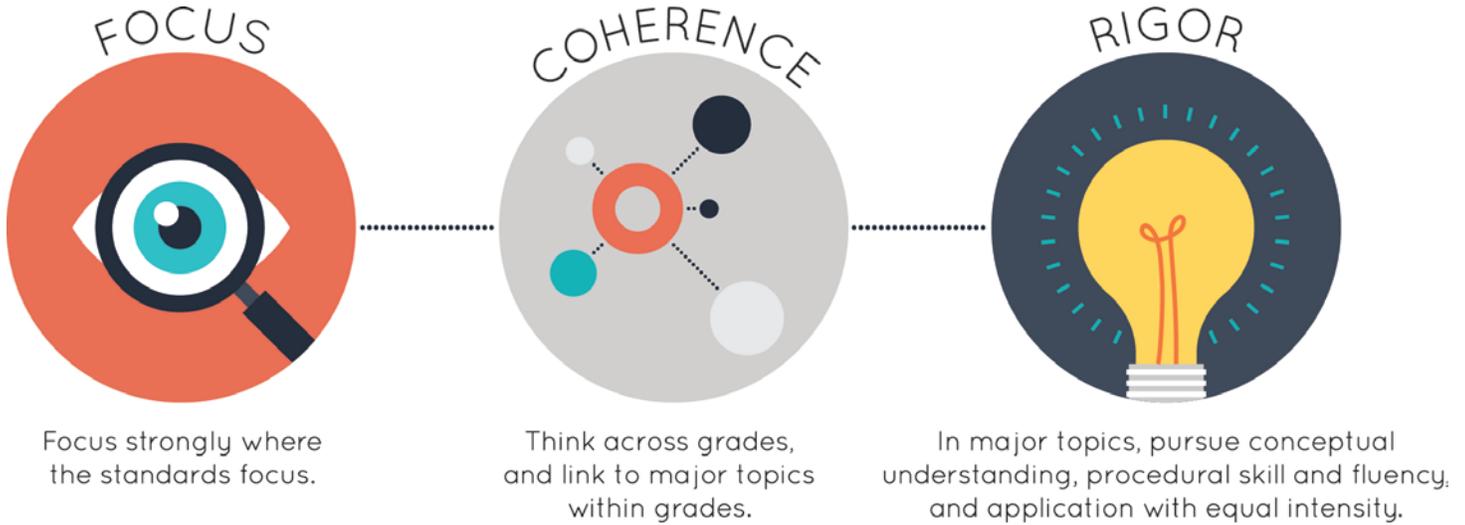
Click below for complete grade-level reviews:

[Grade 9 \(Tier 3\)](#)

[Grade 10 \(Tier 3\)](#)

[Grade 11 \(Tier 3\)](#)

Strong mathematics instruction contains the following elements:



Title: **AMSCO Math Algebra 1**

Grade/Course: **Algebra 1**

Publisher: **Perfection Learning Corporation**

Copyright: **2015**

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

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

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

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

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.			
<p>Non-Negotiable 1. FOCUS ON MAJOR WORK¹: Students and teachers using the materials as designed devote the large majority² of time to the major work of the grade/course.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>REQUIRED 1a) Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.</p>	<p>No</p>	<p>According to the Standards Correlation information provided on pages xxii-xxvii, approximately 59% of materials align to major content standards for Algebra 1. 38 out of 64 total chapter sub-sections align to major work. Significant time is spent on work from prior grades. Chapter 1, for example, has 8 sub-sections that are devoted entirely to review material that precedes Algebra 1 standards.</p>
	<p>REQUIRED 1b) In any one grade/course, aligned materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In aligned materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.³</p>	<p>No</p>	<p>Some time is spent on standards that are not part of Algebra 1, including standards that should not be introduced until Algebra II. Chapter 1 alone accounts for approximately 13% of all the materials and is devoted to prior grade-level standards. Another example is in Lesson 4.5, which is titled, Solving Absolute Value Equations Algebraically. It is said to be aligned to standard A-REI.3 (Solving linear equations and inequalities in one variable, including equations with coefficients represented by letters); however, this standard does not include absolute value equations in Algebra 1.</p> <p>In addition, there are assessment items that align to items beyond Algebra 1. Specifically, in Quickchecks for Lesson 9.1, there are items that address N-RN.1 and N-RN.2, which are Algebra II standards.</p>
<p>Non-Negotiable 2. CONSISTENT, COHERENT CONTENT Each course’s instructional materials are coherent and</p>	<p>REQUIRED 2a) Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.⁴</p>	<p>Yes</p>	<p>Supporting content standards connect to major content standards in meaningful ways. For example, in Lesson 3.8, supporting content standard N-Q.2 (using appropriate units in a modeling context) is presented in the context of a lesson on modeling and is connected to major content standard A-CED.2 (creating equations in two or more variables). As</p>

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
<p>consistent with the content in the Standards.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>			<p>another example, in section 8.4, supporting content is connected to major content in the context of solving quadratic functions by graphing. Finding the zeros of a function (A-APR.3, supporting work) is presented as part of students finding the solution to a quadratic function (A-REI.10, major work).</p>
	<p>REQUIRED 2b) Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade/course, in cases where these connections are natural and important.⁵</p>	<p>Yes</p>	<p>Meaningful connections are made within and across domains. There are two domains connected in Lesson 3.5. Students learn the definition of a function pertaining to domain and range (F-IF.2) and are required to understand that a graph is a set of solutions (A-REI.10) for $(x, f(x))$ as written in function notation (F-IF.2). This can also be found in Chapter 8 where students are connecting the Algebra and Function domains in a number of sections (8.6, 8.9, and 8.11). Clusters are also connected as seen in Lesson 6.1 with the Algebra domain. Students are required to identify ways to rewrite polynomial expressions (A-SSE.2) to add and subtract polynomials (A-APR.1). This can also be found in Lesson 5.4 where students work to solve systems of equations (A-CED.3) while they represent these systems through graphing (A-REI.12).</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.⁶</p>	<p>REQUIRED 3a) Attention to Conceptual Understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.</p>	<p>Yes</p>	<p>Important mathematical ideas are developed conceptually, where appropriate. In Lesson 2.1, students must identify the property of equality and use it as justification for the solving of the linear equations (A-REI.1). Another example is found in Lesson 7.2. Question 32 asks students to interpret what is meant by the “difference of perfect squares” (A-SSE.2). Lastly, in Lesson 8.9, students must “choose and produce equivalent forms of expressions” (A.SSE.3) in a variety of contexts, which include producing equivalent expressions by substituting values to find important values, such as the vertex of a parabola, and then explain why the</p>

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			expression produced represents this value.
	REQUIRED 3b) Attention to Procedural Skill and Fluency: The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	Yes	<p>Procedural skill and fluency is addressed in a consistent way. For example, A-CED.4 is emphasized in Lesson 2.2. The materials include 19 practice problems that require students to solve literal equations for a given variable. In Chapter 4, students are given regular practice graphing inequalities leading to increased speed and accuracy (A-REI.12). Similarly, Lessons 8.2-8.4 focus on solving quadratic equations in one variable (A-REI.4) and give students a number of opportunities to practice this procedural skill in an appropriate manner.</p> <p>It should be noted that in Lesson 8.11, F-IF.7b is listed as a standard in the lesson. The standard requires students to graph various functions. However, in this lesson, students are not asked to graph functions; rather, the emphasis is on identifying key features of the graphs (F-IF.4) and finding the appropriate domain of the functions (F-IF.5). F-IF.7b is a standard focused on procedural skill; however, there is little to no evidence of that in the materials where it is identified as a standard in the lesson.</p>
	REQUIRED 3c) Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the major work of each grade/course including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content Standards where expectations for multi-step and real-world problems are explicit.	Yes	<p>Students are given adequate opportunity to work with application problems, as appropriate for Algebra I. For example, students are given a number of multi-step contextual problems involving writing linear equations in one variable to solve problems (A-CED.2). This can be found in Chapter 4, where students must produce a number of equations where costs are modeled. Similarly, in Chapter 10.4, students must interpret correlation coefficients within a variety of bivariate modeling contexts (S-ID.7), including analyzing height and weight of people or correlating temperature to heart rate. Lesson 3.8 requires students to sketch the graphs of two functions using the relationship between time and cost given in the problem (F-IF.4 and F-IF.5).</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
	REQUIRED 3d) Balance: The three aspects of rigor are not always treated together and are not always treated separately.	Yes	<p>The materials are well aligned to the content Standards and, as such, have attended to the three components of rigor. Throughout each unit of study, students are provided the opportunity to develop necessary, foundational understanding of Algebra 1 concepts. This understanding naturally and coherently leads to the development of particular procedural skills as seen in Lesson 8.2-8.4 where students are solving quadratic equations procedurally (A-REI.4). The materials then provide students opportunities to apply their knowledge and skills in the real world context as seen in Lesson 9.3. The problem set focuses on all application problems of exponential growth and decay (F-LE.1, F-LE.5). The ebb and flow between the components of rigor within a single unit of study (and throughout the course of the year) is logical and well designed, targeting the appropriate component(s) of rigor for each individual Standard, as well as, making meaningful connection between components of rigor preserving the balance that is called for by the Standards for Algebra 1. This can be seen in Lesson 10.2 and 10.3 (S-ID.1, S-ID.2, and S-ID.3) where all three components are present in the problem sets.</p>
Non-Negotiable 4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS: Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards. ⁷ <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	REQUIRED 4a) Materials address the practice standards in such a way as to enrich the major work of the grade/course; practices strengthen the focus on major work instead of detracting from it, in both teacher and student materials.	Yes	<p>In the teacher edition, each chapter contains a listing of the mathematical practices and multiple explanations that describe how they are applied to the material. For example, Chapter 1 explains that MP2 will be used in the following fashion: “Students should make sense of the relationship between quantities in word problems, represent word problems symbolically and manipulate the symbols as required in the problem, consider the units involved in a problem, make connections to the meanings of quantities, fluently use the properties of operations, work with variable expressions in the abstract while plugging in to check specific cases.” In the student edition, the mathematical practices are sometimes listed in the problem sets in order to</p>

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
			<p>prepare students for the nature of the problem. For example, Lesson 1.7 #32 highlights MP2, 4, and 5.</p> <p>It should be noted that while connection to the Mathematical Practices is at times strong, there are significant gaps. Some of these gaps are found in the lack of depth in terms of connection to MP.1 and MP.4. Students are not often given the sorts of modeling tasks that are iterative/where students engage in a high degree of productive struggle. Instead, modeling problems often guide students through the problem using a number of sub questions that become steps. As part of MP.4, it is assumed that students may be asked to manipulate units as a regular part of modeling by the time they reach Algebra 1. Although there are many modeling contexts presented, students are not often asked to do this sort of work with units as part of their problem-solving efforts.</p>
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
<p>Additional Criterion 5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT: Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards.</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>REQUIRED 5a) Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.¹⁰</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	<p>REQUIRED 5b) Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.¹⁰</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	<p>5c) Materials base content progressions on the progressions in the Standards.⁸</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.

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

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

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
<p>indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards.¹³</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	arguments and explanations, diagrams, mathematical models, etc.		
	<p>7b) There are separate teacher materials that support and reward teacher study including, but not limited to: discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	<p>7c) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	<p>7d) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	<p>7e) Lessons are appropriately structured and scaffolded to support student mastery.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	<p>7f) Materials support the uses of technology as called for in the Standards.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.

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

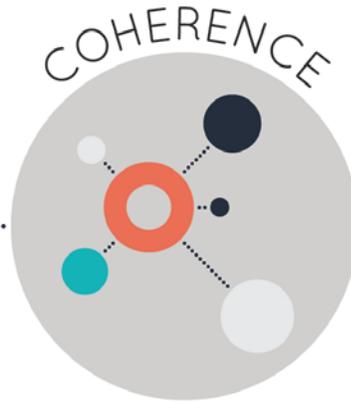
CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
FINAL EVALUATION			
<i>Tier 1 ratings</i> receive a “Yes” in Column 1 for Criteria 1 – 7.			
<i>Tier 2 ratings</i> receive a “Yes” in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one “No” in Column 1 for the remaining criteria.			
<i>Tier 3 ratings</i> receive a “No” in Column 1 for at least one of the non-negotiable criteria.			
Compile the results for Sections I and II to make a final decision for the material under review.			
Section	Criteria	Yes/No	Final Justification/Comments
I: Non-Negotiables	1. Focus on Major Work	No	Only 59% of the material is Major Work of Algebra 1. In addition, there are assessment items aligned to standards, which are not introduced until courses beyond Algebra 1.
	2. Consistent, Coherent Content	Yes	Meaningful connections are made between supporting content and major work for Algebra 1. Materials make natural and important connections across domains as well as across clusters within domains.
	3. Rigor and Balance	Yes	The materials develop conceptual concepts, require procedural skill, and provide application as called for by the standards. These three things are also balanced, being treated together and/or separately, as appropriate according to the standards.
	4. Focus and Coherence via Practice Standards	Yes	Practice standards are given throughout the course in the teacher guide as well as the student edition. There was a note of concern regarding MP.1 and MP.4.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	7. Indicators of Quality	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL: Tier III, Not representing quality			



Strong mathematics instruction contains the following elements:



Focus strongly where the standards focus.



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



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

Title: AMSCO Math Geometry

Grade/Course: Geometry

Publisher: Perfection Learning Corporation

Copyright: 2015

Overall Rating: Tier III, Not representing quality

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

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

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

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.			
<p>Non-Negotiable 1. FOCUS ON MAJOR WORK¹⁴: Students and teachers using the materials as designed devote the large majority¹⁵ of time to the major work of the grade/course.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>REQUIRED 1a) Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.</p>	<p>No</p>	<p>Based on the Chapter Content at the beginning of each chapter, there are a total of 62 lessons, not including those listed as optional. Each lesson lists the standards related to the materials. 37 out of the 62 lessons (59.7%) list major standards as the target standard for that lesson, meaning that 25 of the 62 lessons do not focus on major coursework.</p> <p>There are Sections, which the Correlation Guide has listed as Priority Content Standards that do not match up with the standards for Geometry. For example, Chapter 12: Probability features 5 lessons that do not pertain to the relevant Geometry curriculum. In addition, Chapter 8: Circles features 5 lessons that feature only supporting Geometry standards. Together, these chapters account for 16.13% of the curriculum.</p>
	<p>REQUIRED 1b) In any one grade/course, aligned materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In aligned materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.¹⁶</p>	<p>No</p>	<p>Some time is spent on standards that are not part of Geometry, including standards that should not be introduced until Algebra 2. Chapter 12 features six lessons that focus primarily on S-CP standards (conditional probability and the rules of probability) and S-MD standards (using probability to make decisions). These are standards in Algebra II and are found on assessments (Quickchecks). In addition, Lesson 11.2 has Quickcheck items that align to G-GPE.2, which is an Algebra II standard.</p> <p>It should be noted Chapter R is devoted to prior grade-level standards and accounts for approximately 14% of all the materials.</p>

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
<p>Non-Negotiable 2. CONSISTENT, COHERENT CONTENT Each course’s instructional materials are coherent and consistent with the content in the Standards.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>REQUIRED 2a) Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.¹⁷</p>	<p>Yes</p>	<p>Supporting content standards connect to major content standards in meaningful ways. For example, in Lesson 2.2, supporting content standard G-CO.2 (representing transformations on the coordinate plane) is presented in the context of a lesson on verifying the properties of dilations (major content standards G.SRT.1). As another example, in Lesson 4.3., supporting content is connected to major content in the context of proving theorems about lines and angles (supporting content standard G.CO.12 is presented alongside major content standard G.CO.9).</p>
	<p>REQUIRED 2b) Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade/course, in cases where these connections are natural and important.¹⁸</p>	<p>Yes</p>	<p>Meaningful connections are made within and across domains. Lesson 2.2 connects two domains where students use Geometry software (G-CO.2) to analyze dilations (G-SRT.1, G-SRT.2, and G-SRT.3). In Lesson 8.5, students use the distance around a circular arc (G-CO.1) as they prepare to derive the formula for area of sector (G-C.5). Lastly, Lesson 9.8 connects G-SRT.8, G-MG.1, and G-MG.3 as part of a modeling lesson involving applications with Pythagorean Theorem.</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.¹⁹</p>	<p>REQUIRED 3a) <i>Attention to Conceptual Understanding:</i> Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.</p>	<p>Yes</p>	<p>Important mathematical ideas are developed conceptually, where appropriate. For example, students have a number of conceptual problems where they verify the properties of dilations (G-SRT.1) in Lesson 2.2. Additionally, in Lesson 4.2, students solve a variety of conceptual problems where they are asked to prove theorems about parallel lines (G-CO.9). Lastly, G-C.2 can be found in Lessons 8.1 - 8.4 where students are asked to illustrate the tangent and chords theorem as well as describe the relationship between the sides of an inscribed figure as it relates to the radius of the circle.</p>

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	REQUIRED 3b) Attention to Procedural Skill and Fluency: The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	Yes	Procedural skill and fluency is addressed in a consistent way, where specifically called for by the standards. For example, in Lessons 1.4-1.6, students have a variety of opportunities to practice transformations in a way that encourages speed and accuracy (G-CO.6). Similarly, in Chapter 7, G-SRT.7 is presented so that students are given a number of opportunities to practice using sine and cosine of complementary angles to solve problems involving missing sides/angles of triangles. Lastly, Lesson 9.6 has students find perimeters and areas of polygons using the distance formula (G-GPE.7).
	REQUIRED 3c) Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the major work of each grade/course including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content Standards where expectations for multi-step and real-world problems are explicit.	Yes	Students are given adequate opportunity to work with application problems, as appropriate for Geometry. For example, students are given a number of multi-step contextual problems involving modeling with geometry. For example, in Chapter 9, students must work to solve multi-step problems involving the area of polygons. In addition, Lesson 7.3 highlights application standard G-SRT.8 where students do things such as analyzing a diagonal brace being used to support a wall. Lastly, Lesson 10.5 has students apply density based on area and volume through modeling. There are application questions within the lesson itself as well as the problem set at the end of the lesson.
	REQUIRED 3d) Balance: The three aspects of rigor are not always treated together and are not always treated separately.	Yes	The materials are well aligned to the content Standards and, as such, have attended to the three components of rigor. Throughout each unit of study, students are provided the opportunity to develop necessary, foundational understanding of Geometry concepts. This understanding naturally and coherently leads to the development of particular procedural skills as seen in Lessons 1.4-1.6 where students are drawing transformed figures using rotations, reflections, or translations (G-CO.5). The materials then provide students opportunities to apply their knowledge and skills in the real world context as seen in Lesson 7.3. The problem set

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
			<p>focuses on application problems using Pythagorean Theorem (G-SRT.8). The ebb and flow between the components of rigor within a single unit of study (and throughout the course of the year) is logical and well designed, targeting the appropriate component(s) of rigor for each individual Standard, as well as, making meaningful connection between components of rigor preserving the balance that is called for by the Standards for Geometry. This can be seen in Lesson 4.4 (G-GPE.4) where multiple components are present in the problem sets.</p>
<p>Non-Negotiable 4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS: Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards.²⁰</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>REQUIRED 4a) Materials address the practice standards in such a way as to enrich the major work of the grade/course; practices strengthen the focus on major work instead of detracting from it, in both teacher and student materials.</p>	<p>Yes</p>	<p>In the teacher edition, each chapter contains a listing of the mathematical practices and multiple explanations that describe how they are applied to the material. For example, Chapter 1 explains that MP.5 will occur as students “use the straightedge and compass to create graphs and diagrams that accurately represent situations presented.” In the student edition, the mathematical practices are sometimes listed in order to prepare students for the nature of the problem.</p> <p>It should be noted that while connection to the Mathematical Practices is at times strong, there are gaps. Some of these gaps are found in the lack of depth in terms of connection to MP.4 and MP.1. Students are not often given the sorts of modeling tasks that are iterative/where students engage in a high degree of productive struggle. Instead, modeling problems often guide students through the problem using a number of sub questions that become steps. For example, in the presentation of many multi-step modeling problems, students are given a problem under the heading of "Multi-part Problem Practice." Here, steps are broken down for the students in a very specific way, as opposed to asking students themselves to develop these steps. (see problem on finding the area of a metal sculpture found on p.464 of the SE as a</p>

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
			representative example of this).
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
<p>Additional Criterion 5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT: Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards.</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>REQUIRED 5a) Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.¹⁰</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	<p>REQUIRED 5b) Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.¹⁰</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	<p>5c) Materials base content progressions on the progressions in the Standards.²¹</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	<p>5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards.²²</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	<p>5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives.¹¹</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
<p>Additional Criterion 6. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL PRACTICE: Aligned materials make meaningful and purposeful connections that enhance the focus and coherence</p>	<p>6a) Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.²³ Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice standard.²⁴ There are teacher-</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.

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

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

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

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

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

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

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

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

FINAL EVALUATION

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

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

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

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

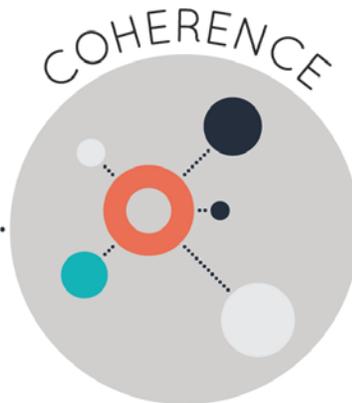
Section	Criteria	Yes/No	Final Justification/Comments
I: Non-Negotiables	1. Focus on Major Work	No	Only 59.7% of the material is Major Work of Geometry. In addition, there are assessment items aligned to standards, which are not introduced until courses beyond Geometry.
	2. Consistent, Coherent Content	Yes	Meaningful connections are made between supporting content and major work for Geometry. Materials make natural and important connections across domains as well as across clusters within domains.
	3. Rigor and Balance	Yes	The materials develop conceptual concepts, require procedural skill, and provide application as called for by the standards. These three things are also balanced, being treated together and/or separately,

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
			as appropriate according to the standards.
	4. Focus and Coherence via Practice Standards	Yes	Practice standards are given throughout the course in the teacher guide as well as the student edition. There was a note of concern regarding MP.1 and MP.4.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	7. Indicators of Quality	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL: <u>Tier III, Not representing quality</u>			

Strong mathematics instruction contains the following elements:



Focus strongly where the standards focus.



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



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

Title: **AMSCO Math Algebra 2**

Grade/Course: **Algebra 2**

Publisher: **Perfection Learning Corporation**

Copyright: **2015**

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

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

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

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

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.			
<p>Non-Negotiable 1. FOCUS ON MAJOR WORK²⁷: Students and teachers using the materials as designed devote the large majority²⁸ of time to the major work of the grade/course.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>REQUIRED 1a) Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.</p> <p>REQUIRED 1b) In any one grade/course, aligned materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In aligned materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.²⁹</p>	<p>No</p> <p>No</p>	<p>Based on the pacing guide and the Standards Correlation, there are 56 lessons in Algebra II. 14 of the 56 (25%) lessons are devoted to major coursework. It is important to note Chapter 1 and Chapter 9 feature no major standards of Algebra II.</p> <p>Some time is spent on standards that are not part of Algebra II, including standards that should not be introduced until courses beyond Algebra II. Chapter 1 is entitled themes in Algebra II. It does not feature standards that are relevant to the coursework of the subject. Many of the standards in this chapter are found solely on Algebra I, including A-SSE.1 and A-CED.3.</p> <p>In addition, there are assessment items in the Quickchecks that are found in the standards beyond Algebra II courses. Lesson 2.5 is an example with questions that assess standard N-CN.8.</p>
<p>Non-Negotiable 2. CONSISTENT, COHERENT CONTENT Each course’s instructional materials are coherent and consistent with the content in the Standards.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>REQUIRED 2a) Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.³⁰</p>	<p>Yes</p>	<p>Supporting content standards connect to major content standards in meaningful ways. For example, in Lesson 3.8, supporting content standards F-IF.7c (graphing functions) and F-IF.9 (comparing two functions presented in different ways) are presented in the context of a lesson on modeling with functions (major content standards F-IF.4 and F-IF.6). As another example, in Lesson 2.7, supporting standard A-CED.2 becomes an integral part of another modeling lesson dealing with functions (F-IF.4).</p>

²⁷ For more on the major work of the grade, see [Focus by Grade Level](#).

²⁸ The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.

²⁹ Refer also to criterion #2 in the K–8 [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

³⁰ Refer also to criterion #3 in the K–8 [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
	REQUIRED 2b) Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade/course, in cases where these connections are natural and important. ³¹	Yes	Meaningful connections are made within and across domains. There are two domains connected in Lesson 8.5 where students explain (N-RN.1) and rewrite (N-RN.2) radical exponents using the structure of the given expressions (A-SSE.2). Clusters within the Algebra conceptual category are also connected as seen in Lesson 4.3 where students create (A-CED.1) and explain (A-REI.1) and solve (A-REI.2) rational 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. ³² <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	REQUIRED 3a) Attention to Conceptual Understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.	Yes	Important mathematical ideas are developed conceptually, where appropriate. For example, in Lesson 5.1, students solve a variety of conceptual problems where they are asked to explain how rational exponents stem from extending integer exponents (N-RN.1). Additionally, in Lessons 2.1-2.3, students have a number of conceptual problems where they work on rewriting expressions by recognizing their structure (A-SSE.2).
	REQUIRED 3b) Attention to Procedural Skill and Fluency: The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	Yes	Procedural skill and fluency is addressed in a consistent way, where specifically called for by the standards. For example, in the curriculum’s presentation of A-SSE.3 in Lesson 6.2, students have a variety of opportunities to use the properties of exponents to transform expressions for exponential functions. Lesson 5.1 has students strengthen their procedural skill by giving 40 problems for students to practice radical operations.
	REQUIRED 3c) Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the	Yes	Students are given adequate opportunity to work with application problems, as appropriate for Algebra II. For example, in Chapter 6, students are given a number of multi-step contextual problems involving modeling with functions; students work to

³¹ Refer also to criterion #6 in the K–8 [Publishers’ Criteria](#) and #4 in the High School [Publishers’ Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

³² Refer also to criterion #4 in the K–8 [Publishers’ Criteria](#) and #2 in the High School [Publishers’ Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
	<p>major work of each grade/course including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content Standards where expectations for multi-step and real-world problems are explicit.</p>		<p>develop exponential function in a variety of contexts (e.g. interest rate problems, problems looking at radioactive decay, or the exponential decay of a medicine in a patient's body). In addition, Lesson 9.7 highlights S-ID.6a where students are asked to fit either a cosine or sine function to the data in the graph. Lastly, Lesson 10.5 provides students with multiple opportunities to apply the mean and standard deviation to populations (S-ID.4)</p>
	<p>REQUIRED 3d) Balance: The three aspects of rigor are not always treated together and are not always treated separately.</p>	<p>Yes</p>	<p>The materials are well aligned to the content Standards and, as such, have attended to the three components of rigor. Throughout each unit of study, students are provided the opportunity to develop necessary, foundational understanding of Algebra II concepts. This understanding naturally and coherently leads to the development of particular procedural skills as seen in Lesson 3.2 where students are dividing polynomials (A-APR.6). The materials then provide students opportunities to apply their knowledge and skills in the real world context as seen in Lesson 2.7. The problem set focuses on application problems of quadratic modeling (F-IF.4). The ebb and flow between the components of rigor within a single unit of study (and throughout the course of the year) is logical and well designed, targeting the appropriate component(s) of rigor for each individual Standard, as well as, making meaningful connection between components of rigor preserving the balance that is called for by the Standards for Algebra II. This can be seen in Lesson 6.2 (A-SSE.4) where all three components are present in the problem sets.</p>
<p>Non-Negotiable 4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS: Materials promote focus and coherence by connecting practice standards with content that is</p>	<p>REQUIRED 4a) Materials address the practice standards in such a way as to enrich the major work of the grade/course; practices strengthen the focus on major work instead of detracting from it, in both teacher and student materials.</p>	<p>Yes</p>	<p>In the teacher edition, each chapter contains a listing of the mathematical practices and a multiple explanations that describe how they are applied to the material. For example, Chapter 3 states that MP.8 (look for and express regularity in repeated reasoning) will occur as students "make predictions about the behavior of graphs of polynomial</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
<p>emphasized in the Standards.³³</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>			<p>functions based on prior observations." In the student edition, the mathematical practices are sometimes listed in order to prepare students for the nature of the problem. For example, Lesson 4.3 #31 highlights MP.4.</p> <p>It should be noted that while connection to the Mathematical Practices is at times strong, there are significant gaps. Some of these gaps are found in the lack of depth in terms of connection to MP.4 and MP.1. Students are not often given the sorts of modeling tasks that are iterative/where students engage in a high degree of productive struggle. Instead, modeling problems often guide students through the problem using a number of sub questions that become steps. For example, in the presentation of many multi-step modeling problems, students are given a problem under the heading of "Multi-part Problem Practice."</p>
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
<p>Additional Criterion</p> <p>5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT:</p> <p>Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards.</p>	<p>REQUIRED</p> <p>5a) Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.¹⁰</p>	Not Evaluated	<p>This section was not evaluated because the non-negotiable criteria were not met.</p>
	<p>REQUIRED</p> <p>5b) Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.¹⁰</p>	Not Evaluated	<p>This section was not evaluated because the non-negotiable criteria were not met.</p>

³³ Refer also to criterion #8 in the K–8 [Publishers' Criteria](#) and #6 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013)

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
<input type="checkbox"/> Yes <input type="checkbox"/> No	5c) Materials base content progressions on the progressions in the Standards. ³⁴	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards. ³⁵	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives. ¹¹	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
Additional Criterion 6. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL PRACTICE: Aligned materials make meaningful 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	6a) Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard. ³⁶ Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice standard. ³⁷ There are teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. Alignments to practice standards are accurate.	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	6b) Materials Support the Standards' Emphasis on Mathematical Reasoning: Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3). Materials engage students in problem solving as a form of argument, attending thoroughly to places in the Standards that explicitly set expectations for multi-step problems. ³⁸	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	6c) Materials explicitly attend to the specialized language	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.

³⁴ Refer also to criterion #5 in the K–8 [Publishers' Criteria](#) and #3 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

³⁵ Refer also to criterion #6 in the K–8 [Publishers' Criteria](#) and #4 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

³⁶ Refer also to criterion #9 in the K–8 [Publishers' Criteria](#) and #7 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

³⁷ Refer also to criterion #7 in the K–8 [Publishers' Criteria](#) and #5 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

³⁸ Refer also to criterion #10 in the K–8 [Publishers' Criteria](#) and #8 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
<p>Additional Criterion</p> <p>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.³⁹</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	of mathematics. ¹²		
	<p>7a) There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	<p>7b) There are separate teacher materials that support and reward teacher study including, but not limited to: discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	<p>7c) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	<p>7d) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	<p>7e) Lessons are appropriately structured and scaffolded to support student mastery.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
<p>7f) Materials support the uses of technology as called for in the Standards.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	

³⁹ Refer also to pages 18-20 in the K – 8 [Publishers’ Criteria](#) and pages 16-18 in the High School [Publishers’ Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES
FINAL EVALUATION			
<i>Tier 1 ratings</i> receive a “Yes” in Column 1 for Criteria 1 – 7.			
<i>Tier 2 ratings</i> receive a “Yes” in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one “No” in Column 1 for the remaining criteria.			
<i>Tier 3 ratings</i> receive a “No” in Column 1 for at least one of the non-negotiable criteria.			
Compile the results for Sections I and II to make a final decision for the material under review.			
Section	Criteria	Yes/No	Final Justification/Comments
I: Non-Negotiables	1. Focus on Major Work	No	Only 25% of the material is Major Work of Algebra II. In addition, there are assessment items aligned to standards, which are not introduced until courses beyond Algebra II.
	2. Consistent, Coherent Content	Yes	Meaningful connections are made between supporting content and major work for Algebra II. Materials make natural and important connections across domains as well as across clusters within domains.
	3. Rigor and Balance	Yes	The materials develop conceptual concepts, require procedural skill, and provide application as called for by the standards. These three things are also balanced, being treated together and/or separately, as appropriate according to the standards.
	4. Focus and Coherence via Practice Standards	Yes	Practice standards are given throughout the course in the teacher guide as well as the student edition. There was a note of concern regarding MP.1 and MP.4.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	7. Indicators of Quality	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL: Tier III, Not representing quality			

Appendix I.

Publisher Response

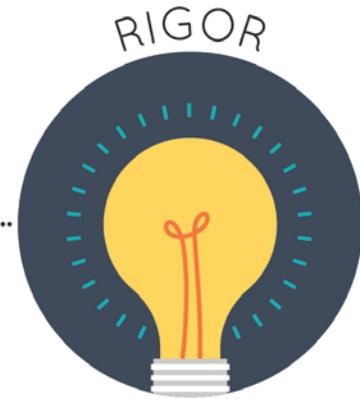
Strong mathematics instruction contains the following elements:



Focus strongly where the standards focus.



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



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

Title: **AMSCO Math Algebra 1, Geometry, and Algebra 2**

Grade/Course: **Algebra 1, Geometry, and Algebra 2**

Publisher: **Perfection Learning Corporation**

Copyright: **2015**

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

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

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

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

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

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

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

Click below for complete grade-level reviews:

[Grade 9 \(Tier 3\)](#)

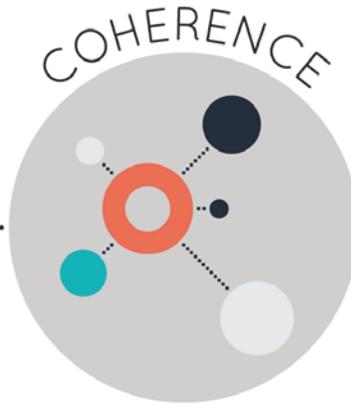
[Grade 10 \(Tier 3\)](#)

[Grade 11 \(Tier 3\)](#)

Strong mathematics instruction contains the following elements:



Focus strongly where the standards focus.



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



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

Title: **AMSCO Math Algebra 1**

Grade/Course: **Algebra 1**

Publisher: **Perfection Learning Corporation**

Copyright: **2015**

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

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

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

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

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.				
<p>Non-Negotiable 1. FOCUS ON MAJOR WORK¹: Students and teachers using the materials as designed devote the large majority² of time to the major work of the grade/course.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>REQUIRED 1a) Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.</p>	<p>No</p>	<p>According to the Standards Correlation information provided on pages xxii-xxvii, approximately 59% of materials align to major content standards for Algebra 1. 38 out of 64 total chapter sub-sections align to major work. Significant time is spent on work from prior grades. Chapter 1, for example, has 8 sub-sections that are devoted entirely to review material that precedes Algebra 1 standards.</p>	<p>In response to teacher surveys, we provided resources for foundational skills embedded within the product. We placed them where teachers felt that they would be needed for RTI. In the latest printings, Chapter 1 and lessons 3.1,3.2,3.3,and 3.4 are clearly marked "review". See pp. iii and iv. 38 of the 53 lessons not marked for RTI, or 73%, align to major work.</p>
	<p>REQUIRED 1b) In any one grade/course, aligned materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In aligned materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.³</p>	<p>No</p>	<p>Some time is spent on standards that are not part of Algebra 1, including standards that should not be introduced until Algebra II. Chapter 1 alone accounts for approximately 13% of all the materials and is devoted to prior grade-level standards. Another example is in Lesson 4.5, which is titled, Solving Absolute Value Equations Algebraically. It is said to be aligned to standard A-REI.3 (Solving linear equations and inequalities in one variable, including equations with coefficients represented by letters); however, this standard does not include absolute value equations in Algebra 1.</p> <p>In addition, there are assessment items that align to items beyond Algebra 1. Specifically, in Quickchecks for Lesson 9.1, there are items that address N-RN.1 and N-RN.2, which are Algebra II standards.</p>	<p>N-RN.1 and N-RN.2 Extend the properties of exponents to rational exponents are listed as Common Core Algebra 1 standards. Many states include A-REI.3.1 under A-REI.3 in their algebra 1 curriculum as absolute value functions are forms of linear functions. 9-12.A-REI.3.1 Solve one-variable equations and inequalities involving absolute value, graphing the solutions and interpreting them in context. We included minimal material above the expectations of typical algebra 1 students.</p>
<p>Non-Negotiable 2. CONSISTENT, COHERENT CONTENT Each course's instructional materials are coherent and</p>	<p>REQUIRED 2a) Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.⁴</p>	<p>Yes</p>	<p>Supporting content standards connect to major content standards in meaningful ways. For example, in Lesson 3.8, supporting content standard N-Q.2 (using appropriate units in a modeling context) is presented in the context of a lesson on modeling and is connected to major content standard A-CED.2 (creating equations in two or more variables). As</p>	

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
<p>consistent with the content in the Standards.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>			<p>another example, in section 8.4, supporting content is connected to major content in the context of solving quadratic functions by graphing. Finding the zeros of a function (A-APR.3, supporting work) is presented as part of students finding the solution to a quadratic function (A-REI.10, major work).</p>	
	<p>REQUIRED 2b) Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade/course, in cases where these connections are natural and important.⁵</p>	<p>Yes</p>	<p>Meaningful connections are made within and across domains. There are two domains connected in Lesson 3.5. Students learn the definition of a function pertaining to domain and range (F-IF.2) and are required to understand that a graph is a set of solutions (A-REI.10) for $(x, f(x))$ as written in function notation (F-IF.2). This can also be found in Chapter 8 where students are connecting the Algebra and Function domains in a number of sections (8.6, 8.9, and 8.11). Clusters are also connected as seen in Lesson 6.1 with the Algebra domain. Students are required to identify ways to rewrite polynomial expressions (A-SSE.2) to add and subtract polynomials (A-APR.1). This can also be found in Lesson 5.4 where students work to solve systems of equations (A-CED.3) while they represent these systems through graphing (A-REI.12).</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.⁶</p>	<p>REQUIRED 3a) Attention to Conceptual Understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.</p>	<p>Yes</p>	<p>Important mathematical ideas are developed conceptually, where appropriate. In Lesson 2.1, students must identify the property of equality and use it as justification for the solving of the linear equations (A-REI.1). Another example is found in Lesson 7.2. Question 32 asks students to interpret what is meant by the “difference of perfect squares” (A-SSE.2). Lastly, in Lesson 8.9, students must “choose and produce equivalent forms of expressions” (A.SSE.3) in a variety of contexts, which include producing equivalent expressions by substituting values to find important values, such as the vertex of a parabola, and then explain why the</p>	

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			expression produced represents this value.	
	REQUIRED 3b) Attention to Procedural Skill and Fluency: The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	Yes	<p>Procedural skill and fluency is addressed in a consistent way. For example, A-CED.4 is emphasized in Lesson 2.2. The materials include 19 practice problems that require students to solve literal equations for a given variable. In Chapter 4, students are given regular practice graphing inequalities leading to increased speed and accuracy (A-REI.12). Similarly, Lessons 8.2-8.4 focus on solving quadratic equations in one variable (A-REI.4) and give students a number of opportunities to practice this procedural skill in an appropriate manner.</p> <p>It should be noted that in Lesson 8.11, F-IF.7b is listed as a standard in the lesson. The standard requires students to graph various functions. However, in this lesson, students are not asked to graph functions; rather, the emphasis is on identifying key features of the graphs (F-IF.4) and finding the appropriate domain of the functions (F-IF.5). F-IF.7b is a standard focused on procedural skill; however, there is little to no evidence of that in the materials where it is identified as a standard in the lesson.</p>	
	REQUIRED 3c) Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the major work of each grade/course including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content Standards where expectations for multi-step and real-world problems are explicit.	Yes	<p>Students are given adequate opportunity to work with application problems, as appropriate for Algebra I. For example, students are given a number of multi-step contextual problems involving writing linear equations in one variable to solve problems (A-CED.2). This can be found in Chapter 4, where students must produce a number of equations where costs are modeled. Similarly, in Chapter 10.4, students must interpret correlation coefficients within a variety of bivariate modeling contexts (S-ID.7), including analyzing height and weight of people or correlating temperature to heart rate. Lesson 3.8 requires students to sketch the graphs of two functions using the relationship between time and cost given in the problem (F-IF.4 and F-IF.5).</p>	

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
	<p>REQUIRED 3d) Balance: The three aspects of rigor are not always treated together and are not always treated separately.</p>	<p>Yes</p>	<p>The materials are well aligned to the content Standards and, as such, have attended to the three components of rigor. Throughout each unit of study, students are provided the opportunity to develop necessary, foundational understanding of Algebra 1 concepts. This understanding naturally and coherently leads to the development of particular procedural skills as seen in Lesson 8.2-8.4 where students are solving quadratic equations procedurally (A-REI.4). The materials then provide students opportunities to apply their knowledge and skills in the real world context as seen in Lesson 9.3. The problem set focuses on all application problems of exponential growth and decay (F-LE.1, F-LE.5). The ebb and flow between the components of rigor within a single unit of study (and throughout the course of the year) is logical and well designed, targeting the appropriate component(s) of rigor for each individual Standard, as well as, making meaningful connection between components of rigor preserving the balance that is called for by the Standards for Algebra 1. This can be seen in Lesson 10.2 and 10.3 (S-ID.1, S-ID.2, and S-ID.3) where all three components are present in the problem sets.</p>	
<p>Non-Negotiable 4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS: Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards.⁷</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>REQUIRED 4a) Materials address the practice standards in such a way as to enrich the major work of the grade/course; practices strengthen the focus on major work instead of detracting from it, in both teacher and student materials.</p>	<p>Yes</p>	<p>In the teacher edition, each chapter contains a listing of the mathematical practices and multiple explanations that describe how they are applied to the material. For example, Chapter 1 explains that MP2 will be used in the following fashion: “Students should make sense of the relationship between quantities in word problems, represent word problems symbolically and manipulate the symbols as required in the problem, consider the units involved in a problem, make connections to the meanings of quantities, fluently use the properties of operations, work with variable expressions in the abstract while plugging in to check specific cases.” In the student edition, the mathematical practices are sometimes listed in the problem sets in order to</p>	

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
			<p>prepare students for the nature of the problem. For example, Lesson 1.7 #32 highlights MP2, 4, and 5.</p> <p>It should be noted that while connection to the Mathematical Practices is at times strong, there are significant gaps. Some of these gaps are found in the lack of depth in terms of connection to MP.1 and MP.4. Students are not often given the sorts of modeling tasks that are iterative/where students engage in a high degree of productive struggle. Instead, modeling problems often guide students through the problem using a number of sub questions that become steps. As part of MP.4, it is assumed that students may be asked to manipulate units as a regular part of modeling by the time they reach Algebra 1. Although there are many modeling contexts presented, students are not often asked to do this sort of work with units as part of their problem-solving efforts.</p>	
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY				
<p>Additional Criterion 5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT: Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards.</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>REQUIRED 5a) Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.¹⁰</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	<p>REQUIRED 5b) Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.¹⁰</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	<p>5c) Materials base content progressions on the progressions in the Standards.⁸</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	

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

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

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
<p>indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards.¹³</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	arguments and explanations, diagrams, mathematical models, etc.			
	<p>7b) There are separate teacher materials that support and reward teacher study including, but not limited to: discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	<p>7c) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	<p>7d) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	<p>7e) Lessons are appropriately structured and scaffolded to support student mastery.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	<p>7f) Materials support the uses of technology as called for in the Standards.</p>	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
FINAL EVALUATION				
<i>Tier 1 ratings</i> receive a “Yes” in Column 1 for Criteria 1 – 7.				
<i>Tier 2 ratings</i> receive a “Yes” in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one “No” in Column 1 for the remaining criteria.				
<i>Tier 3 ratings</i> receive a “No” in Column 1 for at least one of the non-negotiable criteria.				
Compile the results for Sections I and II to make a final decision for the material under review.				
Section	Criteria	Yes/No	Final Justification/Comments	
I: Non-Negotiables	1. Focus on Major Work	No	Only 59% of the material is Major Work of Algebra 1. In addition, there are assessment items aligned to standards, which are not introduced until courses beyond Algebra 1.	Chapter 1 and lessons 3.1,3.2,3.3,and 3.4 are clearly marked "review". 38 of the 53 lessons not marked for RTI, or 73%, align to major work. The assessment items mentioned are found in the digital teacher edition only, they are for presentation purposes and inquiry. They are not part of individual student assessment, they are always in a whole group discussion format.
	2. Consistent, Coherent Content	Yes	Meaningful connections are made between supporting content and major work for Algebra 1. Materials make natural and important connections across domains as well as across clusters within domains.	
	3. Rigor and Balance	Yes	The materials develop conceptual concepts, require procedural skill, and provide application as called for by the standards. These three things are also balanced, being treated together and/or separately, as appropriate according to the standards.	
	4. Focus and Coherence via Practice Standards	Yes	Practice standards are given throughout the course in the teacher guide as well as the student edition. There was a note of concern regarding MP.1 and MP.4.	
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	6. Alignment Criteria for Standards for Mathematical Practice	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	7. Indicators of Quality	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	

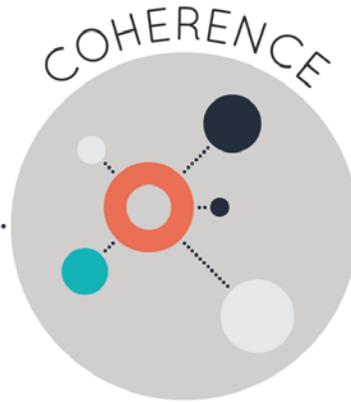
CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
FINAL DECISION FOR THIS MATERIAL: <u>Tier III, Not representing quality</u>				



Strong mathematics instruction contains the following elements:



Focus strongly where the standards focus.



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



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

Title: AMSCO Math Geometry

Grade/Course: Geometry

Publisher: Perfection Learning Corporation

Copyright: 2015

Overall Rating: Tier III, Not representing quality

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

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

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

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.				
<p>Non-Negotiable 1. FOCUS ON MAJOR WORK¹⁴: Students and teachers using the materials as designed devote the large majority¹⁵ of time to the major work of the grade/course.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>REQUIRED 1a) Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.</p>	<p>No</p>	<p>Based on the Chapter Content at the beginning of each chapter, there are a total of 62 lessons, not including those listed as optional. Each lesson lists the standards related to the materials. 37 out of the 62 lessons (59.7%) list major standards as the target standard for that lesson, meaning that 25 of the 62 lessons do not focus on major coursework.</p> <p>There are Sections, which the Correlation Guide has listed as Priority Content Standards that do not match up with the standards for Geometry. For example, Chapter 12: Probability features 5 lessons that do not pertain to the relevant Geometry curriculum. In addition, Chapter 8: Circles features 5 lessons that feature only supporting Geometry standards. Together, these chapters account for 16.13% of the curriculum.</p>	<p>There are a total of 79 lessons. Some of those lessons are provided for RTI, but are clearly indicated. Chapter R (11 lessons) is an algebra review that can be used with subgroups of students needing RTI. Lesson 3.1 and 3.2 are marked as Pre-G-CO.9 and also provided for RTI. Lessons 6.6, 7.7, 9.4, and 11.4 are marked as optional and provided for extension. Of the remaining 62 lessons, 5 lessons (7.8,8.1,12.3,12.4, and 12.5) address LA Geometry standards, but do include some overlapping standards. Of the 62 lessons, 56 address LA Geometry standards. That represents 90%. Chapter 12 has one lesson (12.2) that is not covered in the LA Geometry standards (S-CP.9). The other standards in Ch. 12 (S-CP. 1-7) are all included in the LA standards for Geometry. Chapter 8 contains standards G-CO.1,13, G-C.2,3,4, AND GMD.1 The only one of those standards not included in the LA Geometry standards is G-C.4.</p>
	<p>REQUIRED 1b) In any one grade/course, aligned materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In aligned materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.¹⁶</p>	<p>No</p>	<p>Some time is spent on standards that are not part of Geometry, including standards that should not be introduced until Algebra 2. Chapter 12 features six lessons that focus primarily on S-CP standards (conditional probability and the rules of probability) and S-MD standards (using probability to make decisions). These are standards in Algebra II and are found on assessments (Quickchecks). In addition, Lesson 11.2 has Quickcheck items that align to G-GPE.2, which is an Algebra II standard.</p> <p>It should be noted Chapter R is devoted to prior grade-level standards and accounts for approximately 14% of all the materials.</p>	<p>S-CP standards 1-7 are listed as Geometry standards on Louisiana Student Standards for grades K-12 Math.</p> <p>We included a review chapter in response to Geometry teacher surveys and clearly marked it as review, since it is not part of the core curriculum for Geometry. The purpose is for RTI.</p>

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
<p>Non-Negotiable 2. CONSISTENT, COHERENT CONTENT Each course’s instructional materials are coherent and consistent with the content in the Standards.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>REQUIRED 2a) Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.¹⁷</p>	<p>Yes</p>	<p>Supporting content standards connect to major content standards in meaningful ways. For example, in Lesson 2.2, supporting content standard G-CO.2 (representing transformations on the coordinate plane) is presented in the context of a lesson on verifying the properties of dilations (major content standards G.SRT.1). As another example, in Lesson 4.3., supporting content is connected to major content in the context of proving theorems about lines and angles (supporting content standard G.CO.12 is presented alongside major content standard G.CO.9).</p>	
	<p>REQUIRED 2b) Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade/course, in cases where these connections are natural and important.¹⁸</p>	<p>Yes</p>	<p>Meaningful connections are made within and across domains. Lesson 2.2 connects two domains where students use Geometry software (G-CO.2) to analyze dilations (G-SRT.1, G-SRT.2, and G-SRT.3). In Lesson 8.5, students use the distance around a circular arc (G-CO.1) as they prepare to derive the formula for area of sector (G-C.5). Lastly, Lesson 9.8 connects G-SRT.8, G-MG.1, and G-MG.3 as part of a modeling lesson involving applications with Pythagorean Theorem.</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</p>	<p>REQUIRED 3a) Attention to Conceptual Understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.</p>	<p>Yes</p>	<p>Important mathematical ideas are developed conceptually, where appropriate. For example, students have a number of conceptual problems where they verify the properties of dilations (G-SRT.1) in Lesson 2.2. Additionally, in Lesson 4.2, students solve a variety of conceptual problems where they are asked to prove theorems about parallel lines (G-CO.9). Lastly, G-C.2 can be found in Lessons 8.1 - 8.4 where students are asked to</p>	

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
develop conceptual understanding, procedural skill and fluency, and application. ¹⁹ <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			illustrate the tangent and chords theorem as well as describe the relationship between the sides of an inscribed figure as it relates to the radius of the circle.	
	REQUIRED 3b) Attention to Procedural Skill and Fluency: The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	Yes	Procedural skill and fluency is addressed in a consistent way, where specifically called for by the standards. For example, in Lessons 1.4-1.6, students have a variety of opportunities to practice transformations in a way that encourages speed and accuracy (G-CO.6). Similarly, in Chapter 7, G-SRT.7 is presented so that students are given a number of opportunities to practice using sine and cosine of complementary angles to solve problems involving missing sides/angles of triangles. Lastly, Lesson 9.6 has students find perimeters and areas of polygons using the distance formula (G-GPE.7).	
	REQUIRED 3c) Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the major work of each grade/course including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content Standards where expectations for multi-step and real-world problems are explicit.	Yes	Students are given adequate opportunity to work with application problems, as appropriate for Geometry. For example, students are given a number of multi-step contextual problems involving modeling with geometry. For example, in Chapter 9, students must work to solve multi-step problems involving the area of polygons. In addition, Lesson 7.3 highlights application standard G-SRT.8 where students do things such as analyzing a diagonal brace being used to support a wall. Lastly, Lesson 10.5 has students apply density based on area and volume through modeling. There are application questions within the lesson itself as well as the problem set at the end of the lesson.	
	REQUIRED 3d) Balance: The three aspects of rigor are not always treated together and are not always treated separately.	Yes	The materials are well aligned to the content Standards and, as such, have attended to the three components of rigor. Throughout each unit of study, students are provided the opportunity to develop necessary, foundational understanding of Geometry	

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
			<p>concepts. This understanding naturally and coherently leads to the development of particular procedural skills as seen in Lessons 1.4-1.6 where students are drawing transformed figures using rotations, reflections, or translations (G-CO.5). The materials then provide students opportunities to apply their knowledge and skills in the real world context as seen in Lesson 7.3. The problem set focuses on application problems using Pythagorean Theorem (G-SRT.8). The ebb and flow between the components of rigor within a single unit of study (and throughout the course of the year) is logical and well designed, targeting the appropriate component(s) of rigor for each individual Standard, as well as, making meaningful connection between components of rigor preserving the balance that is called for by the Standards for Geometry. This can be seen in Lesson 4.4 (G-GPE.4) where multiple components are present in the problem sets.</p>	
<p>Non-Negotiable 4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS: Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards.²⁰</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>REQUIRED 4a) Materials address the practice standards in such a way as to enrich the major work of the grade/course; practices strengthen the focus on major work instead of detracting from it, in both teacher and student materials.</p>	<p>Yes</p>	<p>In the teacher edition, each chapter contains a listing of the mathematical practices and multiple explanations that describe how they are applied to the material. For example, Chapter 1 explains that MP.5 will occur as students “use the straightedge and compass to create graphs and diagrams that accurately represent situations presented.” In the student edition, the mathematical practices are sometimes listed in order to prepare students for the nature of the problem.</p> <p>It should be noted that while connection to the Mathematical Practices is at times strong, there are gaps. Some of these gaps are found in the lack of depth in terms of connection to MP.4 and MP.1. Students are not often given the sorts of modeling tasks that are iterative/where students engage in a high degree of productive struggle. Instead, modeling problems often guide students through the problem using a number of sub questions that</p>	

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
			become steps. For example, in the presentation of many multi-step modeling problems, students are given a problem under the heading of "Multi-part Problem Practice." Here, steps are broken down for the students in a very specific way, as opposed to asking students themselves to develop these steps. (see problem on finding the area of a metal sculpture found on p.464 of the SE as a representative example of this).	
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY				
Additional Criterion 5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT: Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards. <input type="checkbox"/> Yes <input type="checkbox"/> No	REQUIRED 5a) Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year. ¹⁰	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	REQUIRED 5b) Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge. ¹⁰	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	5c) Materials base content progressions on the progressions in the Standards. ²¹	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards. ²²	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives. ¹¹	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
<p>Additional Criterion 6. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL PRACTICE: Aligned materials make meaningful and purposeful connections that enhance the focus and coherence of the Standards rather than detract from the focus and include additional content/skills to teach which are not included in the Standards.</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>6a) Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.²³ Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice standard.²⁴ There are teacher-directed materials that explain the role of the practice standards in the classroom and in students’ mathematical development. Alignments to practice standards are accurate.</p>	<p>Not Evaluated</p>	<p>This section was not evaluated because the non-negotiable criteria were not met.</p>	
	<p>6b) Materials Support the Standards’ Emphasis on Mathematical Reasoning: Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3). Materials engage students in problem solving as a form of argument, attending thoroughly to places in the Standards that explicitly set expectations for multi-step problems.²⁵</p>	<p>Not Evaluated</p>	<p>This section was not evaluated because the non-negotiable criteria were not met.</p>	
	<p>6c) Materials explicitly attend to the specialized language of mathematics.¹²</p>	<p>Not Evaluated</p>	<p>This section was not evaluated because the non-negotiable criteria were not met.</p>	
<p>Additional Criterion 7. INDICATORS OF QUALITY: Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards.²⁶</p>	<p>7a) There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc.</p>	<p>Not Evaluated</p>	<p>This section was not evaluated because the non-negotiable criteria were not met.</p>	
	<p>7b) There are separate teacher materials that support and reward teacher study including, but not limited to:</p>	<p>Not Evaluated</p>	<p>This section was not evaluated because the non-negotiable criteria were not met.</p>	

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

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

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

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

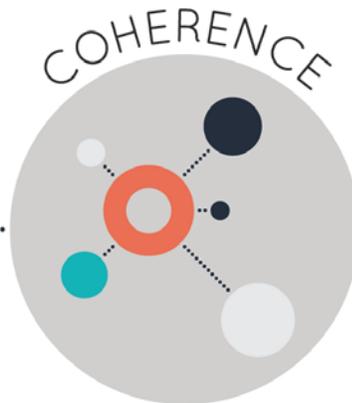
CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts 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>			
	<p>7c) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered.</p>	<p>Not Evaluated</p>	<p>This section was not evaluated because the non-negotiable criteria were not met.</p>	
	<p>7d) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose.</p>	<p>Not Evaluated</p>	<p>This section was not evaluated because the non-negotiable criteria were not met.</p>	
	<p>7e) Lessons are appropriately structured and scaffolded to support student mastery.</p>	<p>Not Evaluated</p>	<p>This section was not evaluated because the non-negotiable criteria were not met.</p>	
	<p>7f) Materials support the uses of technology as called for in the Standards.</p>	<p>Not Evaluated</p>	<p>This section was not evaluated because the non-negotiable criteria were not met.</p>	
<p>FINAL EVALUATION <i>Tier 1 ratings</i> receive a “Yes” in Column 1 for Criteria 1 – 7. <i>Tier 2 ratings</i> receive a “Yes” in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one “No” in Column 1 for the remaining criteria. <i>Tier 3 ratings</i> receive a “No” in Column 1 for at least one of the non-negotiable criteria.</p>				
<p>Compile the results for Sections I and II to make a final decision for the material under review.</p>				
<p>Section</p>	<p>Criteria</p>	<p>Yes/No</p>	<p>Final Justification/Comments</p>	
<p>I: Non-Negotiables</p>	<p>1. Focus on Major Work</p>	<p>No</p>	<p>Only 59.7% of the material is Major Work of Geometry. In addition, there are assessment items aligned to standards, which are not introduced until courses beyond Geometry.</p>	<p>Chapter 12 covers S-CP standards and they were mentioned as not being Geometry content, but S-CP 1-7 are listed as Louisiana Geometry standards. The assessment items mentioned are found in the digital</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
				teacher edition only, they are for presentation purposes and inquiry. They are not part of individual student assessment, they are always in a whole group discussion format.
	2. Consistent, Coherent Content	Yes	Meaningful connections are made between supporting content and major work for Geometry. Materials make natural and important connections across domains as well as across clusters within domains.	
	3. Rigor and Balance	Yes	The materials develop conceptual concepts, require procedural skill, and provide application as called for by the standards. These three things are also balanced, being treated together and/or separately, as appropriate according to the standards.	
	4. Focus and Coherence via Practice Standards	Yes	Practice standards are given throughout the course in the teacher guide as well as the student edition. There was a note of concern regarding MP.1 and MP.4.	
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	6. Alignment Criteria for Standards for Mathematical Practice	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	7. Indicators of Quality	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
FINAL DECISION FOR THIS MATERIAL: Tier III, Not representing quality				

Strong mathematics instruction contains the following elements:



Focus strongly where the standards focus.



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



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

Title: AMSCO Math Algebra 2

Grade/Course: Algebra 2

Publisher: Perfection Learning Corporation

Copyright: 2015

Overall Rating: Tier III, Not representing quality

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

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

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

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.				
<p>Non-Negotiable 1. FOCUS ON MAJOR WORK²⁷: Students and teachers using the materials as designed devote the large majority²⁸ of time to the major work of the grade/course.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>REQUIRED 1a) Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.</p>	<p>No</p>	<p>Based on the pacing guide and the Standards Correlation, there are 56 lesson in Algebra II. 14 of the 56 (25%) lessons are devoted to major coursework. It is important to note Chapter 1 and Chapter 9 feature no major standards of Algebra II.</p>	<p>There are 65 sections in the Amsco Algebra 2 book. 6 are in a clearly marked review chapter that is provided for RTI. 3 sections are marked optional. Of the remaining 56 sections, 50 of them, or 89%, cover standards listed in the Louisiana student standards for Algebra 2. The 6 lessons that do not cover standards listed as LA A2 standards are lessons 9.1,9.2,10.1,10.2,10.3, and 10.4.</p>
	<p>REQUIRED 1b) In any one grade/course, aligned materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In aligned materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.²⁹</p>	<p>No</p>	<p>Some time is spent on standards that are not part of Algebra II, including standards that should not be introduced until courses beyond Algebra II. Chapter 1 is entitled themes in Algebra II. It does not feature standards that are relevant to the coursework of the subject. Many of the standards in this chapter are found solely on Algebra I, including A-SSE.1 and A-CED.3.</p> <p>In addition, there are assessment items in the Quickchecks that are found in the standards beyond Algebra II courses. Lesson 2.5 is an example with questions that assess standard N-CN.8.</p>	<p>A.SSE.1a, 1b, 2 are listed as A1 and A2 standards by CC, but in A2 it extends to polynomial and rational equations. A.CED.1, 2, 3, 4 are also listed in both A1 and A2. A-CED.3 is limited to linear functions in A1, but extends to all available types of functions in A2.</p> <p>There are some lessons that cover advanced standards, but they are minimal.</p>
<p>Non-Negotiable 2. CONSISTENT, COHERENT CONTENT Each course’s instructional materials are coherent and consistent with the content in the Standards.</p>	<p>REQUIRED 2a) Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.³⁰</p>	<p>Yes</p>	<p>Supporting content standards connect to major content standards in meaningful ways. For example, in Lesson 3.8, supporting content standards F-IF.7c (graphing functions) and F-IF.9 (comparing two functions presented in different ways) are presented in the context of a lesson on modeling with functions (major content standards F-IF.4 and F-IF.6). As another example, in Lesson 2.7, supporting standard A-CED.2 becomes an integral part of another modeling lesson dealing with functions (F-IF.4).</p>	

²⁷ For more on the major work of the grade, see [Focus by Grade Level](#).

²⁸ The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.

²⁹ Refer also to criterion #2 in the K–8 [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

³⁰ Refer also to criterion #3 in the K–8 [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>REQUIRED 2b) Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade/course, in cases where these connections are natural and important.³¹</p>	<p>Yes</p>	<p>Meaningful connections are made within and across domains. There are two domains connected in Lesson 8.5 where students explain (N-RN.1) and rewrite (N-RN.2) radical exponents using the structure of the given expressions (A-SSE.2). Clusters within the Algebra conceptual category are also connected as seen in Lesson 4.3 where students create (A-CED.1) and explain (A-REI.1) and solve (A-REI.2) rational expressions.</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.³²</p> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>REQUIRED 3a) Attention to Conceptual Understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.</p>	<p>Yes</p>	<p>Important mathematical ideas are developed conceptually, where appropriate. For example, in Lesson 5.1, students solve a variety of conceptual problems where they are asked to explain how rational exponents stem from extending integer exponents (N-RN.1). Additionally, in Lessons 2.1-2.3, students have a number of conceptual problems where they work on rewriting expressions by recognizing their structure (A-SSE.2).</p>	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>REQUIRED 3b) Attention to Procedural Skill and Fluency: The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.</p>	<p>Yes</p>	<p>Procedural skill and fluency is addressed in a consistent way, where specifically called for by the standards. For example, in the curriculum’s presentation of A-SSE.3 in Lesson 6.2, students have a variety of opportunities to use the properties of exponents to transform expressions for exponential functions. Lesson 5.1 has students strengthen their procedural skill by giving 40 problems for students to practice radical operations.</p>	

³¹ Refer also to criterion #6 in the K–8 [Publishers’ Criteria](#) and #4 in the High School [Publishers’ Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

³² Refer also to criterion #4 in the K–8 [Publishers’ Criteria](#) and #2 in the High School [Publishers’ Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
	<p>REQUIRED 3c) Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the major work of each grade/course including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content Standards where expectations for multi-step and real-world problems are explicit.</p>	Yes	<p>Students are given adequate opportunity to work with application problems, as appropriate for Algebra II. For example, in Chapter 6, students are given a number of multi-step contextual problems involving modeling with functions; students work to develop exponential function in a variety of contexts (e.g. interest rate problems, problems looking at radioactive decay, or the exponential decay of a medicine in a patient's body). In addition, Lesson 9.7 highlights S-ID.6a where students are asked to fit either a cosine or sine function to the data in the graph. Lastly, Lesson 10.5 provides students with multiple opportunities to apply the mean and standard deviation to populations (S-ID.4)</p>	
	<p>REQUIRED 3d) Balance: The three aspects of rigor are not always treated together and are not always treated separately.</p>	Yes	<p>The materials are well aligned to the content Standards and, as such, have attended to the three components of rigor. Throughout each unit of study, students are provided the opportunity to develop necessary, foundational understanding of Algebra II concepts. This understanding naturally and coherently leads to the development of particular procedural skills as seen in Lesson 3.2 where students are dividing polynomials (A-APR.6). The materials then provide students opportunities to apply their knowledge and skills in the real world context as seen in Lesson 2.7. The problem set focuses on application problems of quadratic modeling (F-IF.4). The ebb and flow between the components of rigor within a single unit of study (and throughout the course of the year) is logical and well designed, targeting the appropriate component(s) of rigor for each individual Standard, as well as, making meaningful connection between components of rigor preserving the balance that is called for by the Standards for Algebra II. This can be seen in Lesson 6.2 (A-SSE.4) where all three components are present in the problem sets.</p>	
<p>Non-Negotiable 4. FOCUS AND COHERENCE VIA</p>	<p>REQUIRED 4a) Materials address the practice standards in such a</p>	Yes	<p>In the teacher edition, each chapter contains a listing of the mathematical practices and a multiple</p>	

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
<p>PRACTICE STANDARDS: Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards.³³</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>way as to enrich the major work of the grade/course; practices strengthen the focus on major work instead of detracting from it, in both teacher and student materials.</p>		<p>explanations that describe how they are applied to the material. For example, Chapter 3 states that MP.8 (look for and express regularity in repeated reasoning) will occur as students "make predictions about the behavior of graphs of polynomial functions based on prior observations." In the student edition, the mathematical practices are sometimes listed in order to prepare students for the nature of the problem. For example, Lesson 4.3 #31 highlights MP.4.</p> <p>It should be noted that while connection to the Mathematical Practices is at times strong, there are significant gaps. Some of these gaps are found in the lack of depth in terms of connection to MP.4 and MP.1. Students are not often given the sorts of modeling tasks that are iterative/where students engage in a high degree of productive struggle. Instead, modeling problems often guide students through the problem using a number of sub questions that become steps. For example, in the presentation of many multi-step modeling problems, students are given a problem under the heading of "Multi-part Problem Practice."</p>	
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY				
<p>Additional Criterion 5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT: Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards.</p>	<p>REQUIRED 5a) Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.¹⁰</p>	Not Evaluated	<p>This section was not evaluated because the non-negotiable criteria were not met.</p>	
	<p>REQUIRED 5b) Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes</p>	Not Evaluated	<p>This section was not evaluated because the non-negotiable criteria were not met.</p>	

³³ Refer also to criterion #8 in the K–8 [Publishers' Criteria](#) and #6 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013)

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
<input type="checkbox"/> Yes <input type="checkbox"/> No	reorganized and extended to accommodate the new knowledge. ¹⁰			
	5c) Materials base content progressions on the progressions in the Standards. ³⁴	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards. ³⁵	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives. ¹¹	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
Additional Criterion 6. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL PRACTICE: Aligned materials make meaningful 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	6a) Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard. ³⁶ Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice standard. ³⁷ There are teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. Alignments to practice standards are accurate.	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	6b) Materials Support the Standards' Emphasis on Mathematical Reasoning: Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3). Materials engage students in problem solving as a form of argument, attending	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	

³⁴ Refer also to criterion #5 in the K–8 [Publishers' Criteria](#) and #3 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

³⁵ Refer also to criterion #6 in the K–8 [Publishers' Criteria](#) and #4 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

³⁶ Refer also to criterion #9 in the K–8 [Publishers' Criteria](#) and #7 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

³⁷ Refer also to criterion #7 in the K–8 [Publishers' Criteria](#) and #5 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
	thoroughly to places in the Standards that explicitly set expectations for multi-step problems. ³⁸			
	6c) Materials explicitly attend to the specialized language of mathematics. ¹²	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
Additional Criterion 7. INDICATORS OF QUALITY: Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards. ³⁹ <input type="checkbox"/> Yes <input type="checkbox"/> No	7a) There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc.	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	7b) There are separate teacher materials that support and reward teacher study including, but not limited to: discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students.	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	7c) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered.	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	7d) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose.	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	

³⁸ Refer also to criterion #10 in the K–8 [Publishers' Criteria](#) and #8 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

³⁹ Refer also to pages 18-20 in the K – 8 [Publishers' Criteria](#) and pages 16-18 in the High School [Publishers' Criteria](#) for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
	7e) Lessons are appropriately structured and scaffolded to support student mastery.	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	7f) Materials support the uses of technology as called for in the Standards.	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
FINAL EVALUATION <i>Tier 1 ratings</i> receive a “Yes” in Column 1 for Criteria 1 – 7. <i>Tier 2 ratings</i> receive a “Yes” in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one “No” in Column 1 for the remaining criteria. <i>Tier 3 ratings</i> receive a “No” in Column 1 for at least one of the non-negotiable criteria.				
Compile the results for Sections I and II to make a final decision for the material under review.				
Section	Criteria	Yes/No	Final Justification/Comments	
I: Non-Negotiables	1. Focus on Major Work	No	Only 25% of the material is Major Work of Algebra II. In addition, there are assessment items aligned to standards, which are not introduced until courses beyond Algebra II.	50 of the 56 lessons not marked as review cover LA algebra 2 standards. The assessment items mentioned are found in the digital teacher edition only, they are for presentation purposes and inquiry. They are not part of individual student assessment, they are always in a whole group discussion format.
	2. Consistent, Coherent Content	Yes	Meaningful connections are made between supporting content and major work for Algebra II. Materials make natural and important connections across domains as well as across clusters within domains.	
	3. Rigor and Balance	Yes	The materials develop conceptual concepts, require procedural skill, and provide application as called for by the standards. These three things are also balanced, being treated together and/or separately, as appropriate according to the standards.	
	4. Focus and Coherence via Practice Standards	Yes	Practice standards are given throughout the course in the teacher guide as well as the student edition. There was a note of concern regarding MP.1 and MP.4.	
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	6. Alignment Criteria for Standards for Mathematical Practice	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/ COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
	7. Indicators of Quality	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
FINAL DECISION FOR THIS MATERIAL: Tier III, Not representing quality				

Appendix II.

Public Comments

There were no public comments submitted.