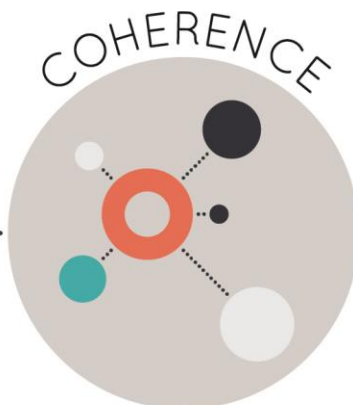




Strong mathematics instruction contains the following elements:



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: **Open Up Resources Math 2nd Edition**

Grade/Course: **6-8**

Publisher: **Open Up Resources**

Copyright: **2019**

Overall Rating: **Tier 1, Exemplifies quality**

[Tier 1](#), [Tier 2](#), [Tier 3](#) Elements of this review:

STRONG	WEAK
1. Focus on Major Work (Non-negotiable)	
2. Consistent, Coherent Content (Non-negotiable)	
3. Rigor and Balance (Non-negotiable)	
4. Focus and Coherence via Practice Standards (Non-negotiable)	
5. Alignment Criteria for Standards for Mathematical Content	
6. Alignment Criteria for Standards for Mathematical Practice	
7. Indicators of Quality	

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

[Grade 6 \(Tier 1\)](#)

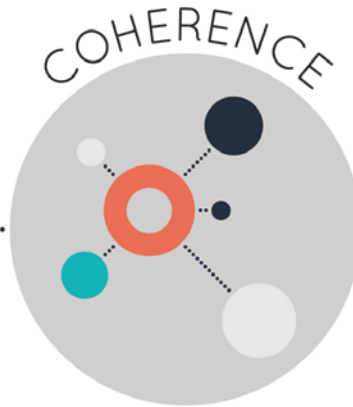
[Grade 7 \(Tier 1\)](#)

[Grade 8 \(Tier 1\)](#)

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: **Open Up Resources Math 2nd Edition**

Grade/Course: **6**

Publisher: **Open Up Resources**

Copyright: **2019**

Overall Rating: **Tier 1, Exemplifies quality**

Tier 1, Tier 2, Tier 3 Elements of this review:

STRONG	WEAK
1. Focus on Major Work (Non-negotiable)	
2. Consistent, Coherent Content (Non-negotiable)	
3. Rigor and Balance (Non-negotiable)	
4. Focus and Coherence via Practice Standards (Non-negotiable)	
5. Alignment Criteria for Standards for Mathematical Content	
6. Quality of Assessments	
7. Indicators of Quality	

To evaluate instructional materials for alignment with the standards and determine tiered rating, begin with

Section I: Non-negotiable Criteria.

- Review the **required**¹ Indicators of Superior Quality for each **Non-negotiable** criterion.
- If there is a “Yes” for all **required** Indicators of Superior Quality, materials receive a “Yes” for that **Non-negotiable** Criterion.
- If there is a “No” for any of the **required** Indicators of Superior Quality, materials receive a “No” for that **Non-negotiable** Criterion.
- Materials must meet **Non-negotiable** Criterion 1 and 2 for the review to continue to **Non-negotiable** Criteria 3 and 4. Materials must meet all of the **Non-negotiable** Criteria 1-4 in order for the review to continue to Section II.
- If materials receive a “No” for any **Non-negotiable** Criterion, a rating of Tier 3 is assigned, and the review does not continue.

If all Non-negotiable Criteria are met, then continue to **Section II: Additional Criteria of Superior Quality.**

- Review the **required** Indicators of Superior Quality for each criterion.
- If there is a “Yes” for all **required** Indicators of Superior Quality, then the materials receive a “Yes” for the additional criteria.
- If there is a “No” for any **required** Indicator of Superior Quality, then the materials receive a “No” for the additional criteria.

Tier 1 ratings receive a “Yes” for all Non-negotiable Criteria and a “Yes” for each of the Additional Criteria of Superior Quality.

Tier 2 ratings receive a “Yes” for all Non-negotiable Criteria, but at least one “No” for the Additional Criteria of Superior Quality.

Tier 3 ratings receive a “No” for at least one of the Non-negotiable Criteria.

¹ **Required Indicators of Superior Quality** are labeled “**Required**” and shaded yellow. Remaining indicators that are shaded white are included to provide additional information to aid in material selection and do not affect tiered rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
Section I: Non-negotiable Criteria of Superior Quality: Materials must meet Non-negotiable Criteria 1 and 2 for the review to continue to Non-negotiable Criteria 3 and 4. Materials must meet all of the Non-negotiable Criteria 1-4 in order for the review to continue to Section II.			
<p>Non-negotiable 1. FOCUS ON MAJOR WORK²: Students and teachers using the materials as designed devote the large majority³ of time to the major work of the grade/course.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Required 1a) Materials devote the majority of class time to the major work of each grade/course.</p>	<p>Yes</p>	<p>Materials devote a larger majority of time to the major work of eighth grade. Of the 139 instructional lessons, 66% are spent on major work of the grade. Specifically, 57% of lessons are spent on major standards, 9% of lessons are spent on a combination of major standards and supporting/additional standards, and 34% of lessons are spent on supporting or additional standards. Unit 9 includes six optional lessons.</p>
	<p>Required 1b) Instructional materials, including assessments, spend minimal time on content outside of the appropriate grade/course during core math instruction. Content beyond grade/course-level should be clearly labeled as optional.</p>	<p>Yes</p>	<p>Materials spend minimal time on content outside of the appropriate grade level during core math instruction. In assessment materials, assessment components do not make students/teachers responsible for any topics before the grade in which they are introduced. The lessons that go beyond the scope of the Grade 6 Louisiana State Standards for Mathematics (LSSM) are clearly marked as optional. While Unit 8 includes some lesson components and assessment items that address mean absolute deviation (LSSM 7.SP.B.3), the Open Up Resources 6-8 Math - Louisiana Implementation Guide clearly labels these lesson components and assessment items as optional.</p>

² For more on the major work of the grade, see [Focus by Grade Level](#).

³ 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%.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>Guidance for Unit 8, Lessons 11 and 12 states, “Specific activities and parts of activities within Lessons 11 (Activities 3, 4, and Cool Down), 12 (Activities 2, 3, and Cool Down), and 18 (Activity 2 questions 1b, 2, and 4; activity 3) can be used as enrichment or are optional as they go beyond the scope of standard 6.SP.5 regarding mean absolute deviation (MAD). These can be added to Grade 7 Unit 8. Mid-Unit Assessment: Omit Problems 6 and 7.” In addition, the guide suggests integrating Grade 7, Unit 6, Lesson 13 “to Unit 6 for solving real-world and mathematical problems by writing and solving inequalities of the form $x + p > q$ and $px > q$ ($>$, $<$, \leq, \geq). Unit 9 is labeled as optional, but all standards addressed in the unit are addressed in prior units. The unit provides an “optional opportunity to go deeper and make connections between domains.” All other lessons relate to grade-level work and align to the Grade 6 LSSM. Warm-ups spend minimal time on content outside of the appropriate grade level to help students recall prior knowledge or to provide fluency practice. The teacher lesson materials indicate Building On standards from previous grade levels. For example, Unit 1, Lesson 2 addresses LSSM 6.G.A.1 and builds on LSSM 3.MD.C.5b. In the Warm-up, students revisit the definition of area from earlier grades. Students observe four drawings that show squares inside a shape</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>and “select all drawings whose squares could be used to find the area of a shape.” In the lesson, students determine the area of triangles, quadrilaterals, and other polygons through composition or decomposition (LSSM 6.G.A.1). In Unit 2, Lesson 11, Warm-up, students identify patterns and determine how many tiles will be in the 4th, 5th, and 10th figure (building on LSSM 5.OA.B.3). Students use the pattern recognition from the Warm-up to identify patterns between proportional relationships (predicting liters of orange juice and soda water) in Activity 2 (LSSM 6.RP.A.3a). In Activity 3, students use similar methods to determine “how many ounces of almonds and raisins would be in different-sized batches of this trail mix” from a table. Students start with 7 ounces of almonds and 5 ounces of raisins and must make predictions to identify equivalent ratios.</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.</p>	<p>Yes</p>	<p>Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year. Culminating lessons are provided to connect supporting content to major content. Although Unit 1, Lessons 1-4 begin with addressing supporting LSSM 6.G.A.1, in Lesson 5, students begin to develop an understanding of writing, explaining, and solving expressions (major LSSM 6.EE.A.2). This understanding is reinforced in Unit 1, Lessons 9-10. For example, Lesson 10</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>connects the supporting Geometry (G) domain to the major Expressions and Equations (EE) domain. In Activity 10.3, students draw heights on a triangle, use the height to find the area of the triangle, and show their reasoning through writing and evaluating expressions that arise from area formulas (LSSM 6.EE.A.2c and LSSM 6.G.A.1). Unit 3 connects the supporting Geometry (G) domain to the major Ratios and Proportional Relationships (RP) domain. Students first develop an understanding of LSSM 6.RP.A.1, 6.RP.A.2, and 6.RP.A.3 in Unit 2 and Unit 3. This understanding is then reinforced in Unit 3, Lesson 17. For example, in Activity 17.2, students observe and analyze a floor plan that includes the dimensions of doors, closets, and windows. After finding the area of the room (LSSM 6.G.A), students analyze different purchasing options regarding various prices per gallon and per quart, as well as how much paint covers a given area. Students then solve problems such as, “An advertisement about the paint that you want to use reads: ‘Just 2 quarts covers 175 square feet! If you need to apply two coats of paint on all the walls, how much paint do you need to buy?’” and “Paint can only be purchased in 1-quart, 1-gallon, and 5-gallon containers. How much will all supplies for the project cost if the cans of paint cost \$10.90 for a quart, \$34.90 for a gallon, and \$165.00 for 5 gallons?” (LSSM 6.RP.A). In Unit 4, Lesson</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>14, Activity 2, students determine the missing length of a triangle using fractions. Students use the formula for area of the triangle (supporting LSSM 6.G.A.1) and divide fractions (major LSSM 6.NS.A.1) to calculate the missing length, b and h, respectively. LSSM 6.NS.A.1 is introduced and developed in the first thirteen lessons of Unit 4 and then reinforced in Lesson 14. Unit 7, Lessons 11-14 first address major LSSM 6.NS.C.8. Students then apply this understanding in Unit 7, Lesson 15 which connects supporting LSSM 6.G.A.3 to major LSSM 6.NS.C.8. In Activity 15.2, students graph four polygons (provided digitally or on paper). Students make connections between the coordinate plane and the number line. The purpose of this lesson is for students to understand that the coordinate plane can “describe shapes and geometry in terms of numbers.”</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.</p>	<p>Yes</p>	<p>Materials include problems and activities that connect two or more clusters in a domain and/or two or more domains in the grade level where these connections are natural and important. For example, Unit 5, Lesson 5 connects the Number Sense (NS) and Expressions and Equations (EE) domains. During the lesson, students multiply fractions to develop conceptual understanding about decimal place values. In Activity 5.2, students, grouped pairs (Partner A and B), complete four questions in which they multiply whole digits with</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>fractions and whole digits with multiples of 10. Additional questions in the activity allow students to conceptually understand that multiplying by fractional bases of ten and dividing by bases of ten result in the same decimal value (LSSM 6.EE.A and LSSM 6.NS.B). Unit 6, Lesson 8, connects Clusters A (Apply and extend previous understandings of arithmetic to algebraic expressions) and B (Reason about and solve one-variable equations and inequalities) in Expressions and Equations (EE) domains to discover equivalent expressions. In Activity 8.2, students draw two different diagrams to represent two different expressions when the variable is a specific number (LSSM 6.EE.A.4). Students use substitution to determine whether the two expressions are equivalent (LSSM 6.EE.B.5). Unit 7, Lesson 10 also connects Clusters A and B of the Expressions and Equations (EE) domain. In Activity 10.1 Warm-up, the teacher displays an equation, and students determine if the equation is true or false along with explaining their reasoning using mathematical terms (LSSM 6.EE.A.2b). In Activity 10.3, students engage in a task with a diagram of an unbalanced hanger with shapes and real-world scenarios (LSSM 6.EE.B.6 and LSSM 6.EE.B.8). Students write an inequality based on the real-world scenario. Students are also given how much a shape on the hanger</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
<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.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Required 3a) Attention to Conceptual Understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by featuring high-quality conceptual problems and discussion questions.</p>	<p>Yes</p>	<p>weighs and must use the information to write another inequality.</p> <p>Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in the standards. The instructional materials develop conceptual understanding of grade-level content through scaffolds, conceptual problems, and discussion questions throughout each lesson. In addition, students use various models and representations, such as diagrams, graphs, number lines, and equations to build conceptual understanding over time. For example, Unit 2, Lesson 3 introduces students to the concept of ratios through powdered drink mix and batches of cookies. In Activity 3.2, students taste test two drinks, Mixture A and Mixture B. Students match the diagram in Activity 3.2 with Mixture A and Mixture B and explain their reasoning. After discussion, Mixture A and Mixture B are combined to create Mixture C. Students conclude that mixtures that taste the same represent equivalent ratios (LSSM 6.RP.A.1). In Activity 3.3, students continue to develop the concept of equivalent ratios using diagrams and recipes. In Unit 7, Lesson 5, students develop conceptual understanding of signed numbers through money spent and received and inventory gained and lost (LSSM 6.NS.C.5). In Activity 5.2, students observe a manager’s record of all the</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>supplies she buys and all of the items she sells. Students interpret the quantity of items with a negative number as items sold and the quantity of items with a positive number as an item in stock. A negative value in dollars indicates how much money was spent. In Unit 8, Lesson 7, students develop conceptual understanding of statistical variability (LSSM 6.SP.A.1 and 6.SP.A.2). The lesson continues to build on what students have learned in previous lessons about statistical questions, types of data, and work on describing distributions (LSSM 6.SP.A.1). In Activity 7.1, students analyze four questions and reason which statistical question anticipates variability in the data and those that do not belong. In Activity 7.2, students continue to develop conceptual understanding of statistical variability as they analyze and interpret data to answer a statistical question that has a distribution which can be described by its center, spread, and overall shape (LSSM 6.SP.A.2). Using information about the length of 25 earthworms, students complete a frequency table, use the data in the table to draw a histogram, determine the typical length for the 25 worms, and describe the spread of the data.</p>
	<p>Required 3b) Attention to Procedural Skill and Fluency: The materials are designed so that students attain the fluencies and procedural skills required by the content</p>	<p>Yes</p>	<p>Materials are designed so that students attain the fluencies and procedural skills required by the standards. Major standards give attention throughout the</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<p>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>year to build fluency. Students build and consolidate conceptual understanding before shifting towards procedural skill and fluency. Fluency is provided throughout activities to build on previously taught skills and concepts. In addition, the materials include lessons that focus solely on procedural skill and fluency as called for by the standards. Every lesson begins with a Warm-up that either helps students prepare for the lesson or to provide students the opportunity to strengthen their number sense and procedural skill. Warm-ups that focus on number sense and procedural skill prompt students to engage in “mental arithmetic or reason numerically or algebraically.” In Unit 5, students compute sums, differences, products, and quotients of multi-digit whole numbers and decimals (LSSM 6.NS.B.2, 6.NS.B.3). In Lesson 3, students make connections between adding and subtracting with diagrams and subtracting using vertical calculations as they add and subtract decimals with few non-zero digits. In Lesson 4, students work with longer decimals, beyond the thousandths place, and determine which method is more efficient, noting the challenges of both diagrams and vertical calculations, such as using base-ten diagrams might take too long using so many pieces. The purpose of this activity is for students to determine which method is preferred when multiplying decimals</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>and applying fluency skills using their preferred method. In Activity 4.3, students use the structure of adding and subtracting whole numbers to find missing addends while adding and subtracting decimals using the vertical calculation. In the Practice Problems, students procedurally solve several problems using vertical calculations. In Lessons 5-8, students focus on multiplying decimals, again, by making connections between diagrams and the standard algorithm. In Lesson 8, Activity 8.3, students practice multiplying decimals using the standard algorithm. In Lessons 9-12, students shift their focus to dividing whole numbers and decimals, using the same approach of connecting models to the standard algorithm. In Lesson 12, Activity 12.2, students use the standard algorithm to fluently divide multi-digit decimal and whole numbers, such as $53.8 \div 4$. In Activity 12.4, students continue to practice fluency by using the standard algorithm to fluently divide multi-digit decimals and whole numbers, such as $7.89 \div 2$. Fluency with decimal and whole number operations continues in subsequent units through Warm-ups and as embedded lesson components. Unit 6, Lesson 14, Activity 14.3 provides students with opportunities to build fluency in evaluating expressions with exponents (LSSM 6.EE.A.2c). Students work in pairs as each student evaluates expressions in one</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			of the columns. Once completed, students should have the same answers as their partner and can check their work with each other. If students' answers are not the same, they can work together to find the error.
	<p>Required 3c) Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications, 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>Materials are designed so that students spend sufficient time working with engaging applications, including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade, afford opportunities for practice, and engage students in problem solving. Each unit includes activities that allow students to apply key concepts to solve real-world problems that can be found throughout the units embedded into activities within the lessons. For example, in Unit 2, Lesson 9, Activity 9.2, students collect data using a 10 meter track, stopwatches, and a constant speed vehicle to solve real-world problems in relating ratios of time and distance to constant speed (LSSM 6.RP.A.3b). In Unit 2, Lesson 10, students apply their conceptual understanding of unit rates to comparing two situations involving the same rate (LSSM 6.RP.A.3b). In Activity 10.1, students observe two images, treadmills for Mai and Jada. The problem states, "The treadmill display shows the distance, in miles, each person ran and the amount of time it took them, in minutes and seconds." Students</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>determine who is running faster if each person runs at a constant speed the entire time. Students refer to their conceptual understanding of ratios and fluency skills to determine the rate that Mai and Jada are running. Students can refer to strategies such as developing a double number line or table to analyze the ratios. In Unit 6, Lesson 4, Activity 4.3, students read scenarios and determine which of the provided equations describes the scenario. Students then find the solution for each equation. For example, Item 1 states, "Claire has 8 fewer books than Mai. If Mai has 26 books, how many does Claire have?" Item 3 states, "Kiran scored 223 more points in a computer game than Tyler. If Kiran scored 409 points, how many points did Tyler score?" (LSSM 6.EE.B.7). In Unit 7, Lesson 11, Activity 11.3, students extend their understanding of a coordinate plane using ordered pairs (LSSM 6.NS.C.8). Students name a specific coordinate in order to hit different parts of an archery target located on a coordinate plane, where the majority of the archery target is in the third quadrant.</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>It is evident in the materials that the three aspects of rigor are not always treated together and are not always treated separately. Lessons address the three components of rigor separately as well as together. For example, Unit 2 begins with students developing conceptual understanding of ratios and ratio language</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>(LSSM 6.RP.A.1) in Lessons 1 and 2 and then incorporates the other aspects of rigor as the unit progresses. For example, Lesson 6 integrates all three aspects of rigor together as students apply their conceptual understanding and procedural skill and fluency in application problems. In Activity 6.2, students use a double number line and a diagram to represent and find equivalent ratios for mixing a powdered drink mix with cups of water. Students answer questions such as, “How can we tell that 4:1 and 12:3 are equivalent ratios?” “How are these representations the same? How are these representations different?” “How many teaspoons of drink mix should be used with 3 cups of water?” and “What numbers should go in the empty boxes on the double number line diagram? What do these numbers mean?” (LSSM 6.RP.A.3). In Unit 6, Lesson 5 also integrates all three components of rigor. In Activity 5.3, students use variables to represent numbers and write expressions when solving real-world problems (LSSM 6.EE.B.6). Given an equation, students create a situation that represents the equation, state what quantity x describes, and solve the equation. In Unit 7, Lessons 1-7, aspects of rigor are not treated together. In Lesson 1, students develop conceptual understanding of positive and negative numbers in terms of temperature and elevation (LSSM 6.NS.C.5, 6.NS.C.6). In</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Lesson 2, Activity 2.3, students apply conceptual understanding of opposite numbers to draw their own number line. Students then develop and apply procedural skills as they create their own number line to determine which number is the same distance away from zero as a number (LSSM 6.NS.C.6c). Lessons 3-7 focus only on conceptual understanding (LSSM 6.NS.C.5, LSSM 6.NS.C.6, and LSSM 6.NS.C.7).
<p>Non-negotiable 4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS: Aligned materials make meaningful and purposeful connections that promote focus and coherence by connecting practice standards with content that is emphasized in the Standards. Materials address the practice standards in a way to enrich and strengthen the focus of the content standards instead of detracting from them.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Required 4a) Materials attend to the full meaning of the practice standards. Each practice standard is connected to grade/course-level content in a meaningful way and is present throughout the year in assignments, activities, and/or problems.</p>	<p>Yes</p>	<p>Materials attend to the full meaning of each practice standard. Each practice standard is connected to grade-level content and is meaningfully present throughout the materials. Practice standards aid in students' transition from conceptual understanding to procedural skill and application. The materials provide students with an opportunity to engage with the practice standards in each lesson and support students in the development of mathematical practices, contributing to students' habits of mind. For example, in Unit 1, Lesson 17, Activity 17.4, students make use of the structure in expressions for area and volume (MP.7) to solve problems where they find unknown side lengths of a square given the area or unknown edge lengths of a cube given the volume (LSSM 6.EE.A.1, 6.EE.A.2c). In Activity 17.3, students look for and express regularity in repeated reasoning (MP.8) as they see that the edge length of a cube determines its volume, notice the</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>numerical expressions that can be written when calculating volumes, and write a general expression for finding the volume of a cube (6.EE.A.1, 6.EE.A.2c). In Unit 1, Lesson 18, students look for and make use of structure (MP.7) with exponent expressions. In Activity 18.1, students observe exponent expressions to determine which expression is greater, without calculating the exact value (LSSM 6.EE.A.1). In Unit 3, Lesson 9, Activity 9.3, students make sense of ratio problems and persevere in solving them (MP.1). Students use ratio reasoning to convert measurement units (LSSM 6.RP.A.3d). The task provides students with sprint distances for various animals and students convert distances to the same measurements to determine which animal sprinted the farthest and the place rankings for all of the animals. In Unit 4, Lesson 2, Activity 2.2, students observe and analyze two student’s representations of the following problem: “A baker has 12 pounds of almonds. She puts them in bags, so that each bag has the same weight.” Each representation includes a tape diagram and an equation. Students reason quantitatively and abstractly (MP.2) as they discuss each representation regarding division situations and interpret division equations in context (LSSM 6.NS.A.1).</p>
	Required	Yes	Materials provide sufficient opportunities for students to construct viable arguments

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<p>4b) Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade/course-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.</p>		<p>and critique the arguments of others concerning key course-level mathematics that is detailed in the content standards. The materials provide opportunities for students to engage in mathematical reasoning through viable arguments and critique student work and opportunities for students to discuss their thinking and reasoning for the strategies they used to solve problems throughout the materials. For example, in Unit 3, Lesson 6, Activity 6.2, students explore two unit rates associated with a ratio and use both to solve problems as they analyze the work of two students (LSSM 6.RP.A.3b). The problem states that instructions for a large batch of oatmeal include 15 cups of water and 6 cups of oats. Priya determines that the recipe calls for 0.4 cups of oats per cup of water. Han determines that the recipe calls for 2.5 cups of water per cup of oats. Students choose who is correct and explain their reasoning. In Unit 4, Lesson 17, Activity 17.1, students make sense of the task to find out the measurements of the jewelry and shipping boxes along with how much it costs to mail the shipping boxes (LSSM 6.G.A.2 and LSSM 6.NS.A.1). They decide how to orient the jewelry boxes inside the shipping box to map out their plan. In Activity 17.2, students work in groups to find the best plan for shipping boxes of necklaces (LSSM 6.G.A.1). Each student in their group selects a different type of shipping box, finds out how many</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>jewelry boxes can fit in each shipping box, and calculates the total shipping costs. In Activity 17.3, students present, reflect, and discuss their work. Each student explains their strategies and reasoning to the group, then the students decide on the best or least expensive option for shipping and explain their reasoning. In Unit 7, Lesson 3, students compare signed numbers in a real-world context (LSSM 6.NS.C.7a and 6.NS.C.7b). In Activity 3.2, students analyze a table of low temperatures, in degrees Celsius, for a week in Anchorage, Alaska and Minneapolis, Minnesota. Students plot the data on a number line to answer questions about the data. Students then determine whether they agree with Jada’s solution and explain their reasoning in the following problem: “On a winter day the low temperature in Anchorage, Alaska was -21 degrees Celsius and the low temperature in Minneapolis, Minnesota was -14 degrees Celsius. Jada said: ‘I know that 14 is less than 21, so -14 is also less than -21. This means that it was colder in Minneapolis than in Anchorage.’”</p>
	<p>Required 4c) Materials explicitly attend to the specialized language of mathematics.</p>	<p>Yes</p>	<p>Materials explicitly attend to the specialized language of mathematics. Mathematical language is emphasized throughout the lessons within each unit. Typically, terms are not identified until students have the opportunity to learn about the concept and then formalize a definition. The materials include</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>instructional routines intended to support students in mathematical language development, such as Information Gap, Algebra Talk. During Information Gap, one partner gets a Problem Card that does not have enough information, while the other student gets the data card relevant to the Problem Card. Students ask each other questions to determine the data needed to solve the problem. The materials use and encourage the use of accurate mathematical terminology when talking about skills, concepts, collusion, and solution process. Embedded into each unit, students have opportunities to engage with mathematical language in answers, explanations, and during mathematical discourse. For example, in Unit 4, Lesson 10, students divide a number by a unit or non-unit fraction (LSSM 6.NS.A.1). Teacher guidance notes that students should recall from Grade 5 that they should multiply by the reciprocal of that fraction. Activities reinforce using the word reciprocal to describe how to divide fractions. In Unit 6, Lesson 2, students develop conceptual understanding of equations and determine whether an equation is true or not (LSSM 6.EE.B.5). Students learn that a variable is a letter standing in for a number and a solution is the value of the variable that makes the equation true. In the Warm-up, the problem states that the equation $a + b = c$ could be true or false.</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>Students are introduced to the term variable and determine possible solutions to a, b, and c that make the equation true, followed by values that would make the equation false. In Activity 2.2, students discuss the meaning of $20x$, or 20 times x, where they are introduced to the formal definition of a coefficient. In Unit 8, Lesson 1, Activity 1.1, students are introduced to a new mathematical term, dot plot (LSSM 6.NS.A.1). Students observe a line plot of people's age in years. Students make connections and the Xs are replaced with dots and then analyze the dot plot. In Activity 1.2, students learn about survey questions and the data that was collected (LSSM 6.SP.B). During the Activity Synthesis, students make new connections between the mathematical terminology of numerical data and categorical data.</p>
	<p>4d) There are teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development.</p>	<p>Yes</p>	<p>Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. The teacher materials and Course Guide provide teachers with insight into which practice standards are utilized in the lessons and their role. This guidance is provided at the unit level in the Unit Overview and also provides teacher-directed guidance within the lesson materials with explanations to develop the practice standards. Instructional routines are embedded in the materials, some of which encourage the use of and help</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>students develop the math practices. For example, Clarify, Critique, Correct uses MP.3, Information Gap uses MP.6, Notice and Wonder often incorporates MP.7. For example, the Unit 1: Area and Surface Area Unit Overview provides several examples of where students utilize the practices. For example, the guidance states, “Through activities designed and sequenced to allow students to make sense of problems and persevere in solving them (MP1), students build on these abilities and their knowledge of areas of rectangles to find the areas of polygons by decomposing and rearranging them to make figures whose areas they can determine (MP7). They learn strategies for finding areas of parallelograms and triangles, and use regularity in repeated reasoning (MP8) to develop formulas for these areas, using geometric properties to justify the correctness of these formulas.” and “They study, assemble, and draw nets for polyhedra and use nets to determine surface areas.” Throughout, they discuss their mathematical ideas and respond to the ideas of others (MP3 and MP6). In Unit 3, Lesson 11, students use double number lines to represent percentages (LSSM 6.RP.A.3c). The Lesson Narrative States, “Students continue to have double number lines as a reasoning tool to use if they want. In several cases, the double number line is provided. There are two</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			reasons for this. First, the equal intervals on the provided double number line are useful for reasoning about percentages. Second, using the same representation that was used earlier for other ratio and rate reasoning reinforces the idea of a percentage as a rate per 100 (MP7).”
Section II: Additional Alignment Criteria and Indicators of Superior Quality			
<p>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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Required 5a) Materials provide all students extensive work with grade/course-level problems.</p>	<p>Yes</p>	<p>Materials provides all students extensive work with course-level problems. Students have the opportunity to learn new math and apply their new learning with extensive grade-level problems. Each lesson begins with a Warm-up to prepare students for the lesson or to strengthen students’ number sense or procedural fluency. This is followed by one or more instructional activities that engage students in new learning or extend previous learning. After completing the activities, the teacher engages students in the Lesson Synthesis and facilitates a discussion to help students synthesize what they learned. Students then complete a Cool Down which serves as a brief summative assessment. Students end the lesson by applying their new learning in Practice Problems. Extension activities are provided throughout the materials that provide students the opportunity to dig deeper and practice additional problems. Unit 6, Lesson 8, students develop an understanding of equivalent expressions and use tape diagrams and</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>operation properties to determine whether two expressions are equivalent (LSSM 6.EE.A.4 and 6.EE.B.5). In the Warm-Up, students mentally find a solution to four equations. In Activity 8.2, students use diagrams to show that expressions can be equivalent or expressions can be equal for only one value of their variable. Students draw and analyze eight different diagrams to represent expressions and then answer questions. In Activity 8.3, students apply what they know about operations and operation properties to understand equivalent expressions. Students consider nine expressions and determine all pairs of equivalent expressions. During the Lesson Synthesis, students explain why given expressions are equivalent. In the Cool Down, students complete two problems in which they decide if each pair is equivalent and explain how they know. Finally, students engage in five, multi-part problems allowing them to apply their new learning.</p>
	<p>Required 5b) Materials relate grade/course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge is extended to accommodate the new knowledge, building to core instruction, on grade/course-level work. Lessons are appropriately structured and scaffolded to support student mastery.</p>	<p>Yes</p>	<p>Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses and are designed so that prior knowledge is extended to accommodate new knowledge. Lessons are appropriately structured and scaffolded to support student mastery. Each lesson includes a Lesson Standards Alignment chart that includes Building on, Addressing, and Building toward</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			standards. The Lesson Narrative gives a general description of the lesson with a connection to previous grade-level concepts. The Unit Overviews also makes connections to prior learning and describes how the unit extends this knowledge. For example, the Unit 2: Introducing Ratios Unit Overview notes that the work in the lesson draws on earlier work numbers and operations. For example, the guidance states, “Starting in grade 3, students worked with relationships that can be expressed in terms of ratios and rates (e.g., conversions between measurements in inches and in yards), however, they did not use these terms. In grade 4, students studied multiplicative comparison. In grade 5, they began to interpret multiplication as scaling, preparing them to think about simultaneously scaling two quantities by the same factor.” In Unit 2, Lesson 1, the Lesson Standards Alignment includes the Building on standard as LSSM 3.MD.C.6. In Lesson 2, the Lesson Standards Alignment includes the Building on standards as LSSM 5.NF.B.3.
	<p>Required 5c) There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade/course-appropriate way, arguments and explanations, diagrams, mathematical models, etc.</p>	Yes	In the materials, students produce answers in a variety of ways. Students model their thinking and solutions using various representations such as equations, diagrams, tables, graphs, and number lines. Throughout the lessons and activities, students provide explanations, arguments, and justifications for their

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>solutions. For example, in Unit 1, Lesson 9, Activity 9.2, students find the area of four triangles by measuring the height and base. Students then write an expression for the area of a triangle recognizing that the equation is half the area of a parallelogram in their explanation (LSSM 6.EE.A.2a, LSSM 6.G.A.1). In Unit 2, Lesson 3, students use diagrams to represent equivalent ratios of ingredients in recipes (LSSM 6.RP.A.1). In Activity 3.3, the task launches with the following scenario: “Let’s say you are planning to make cookies using your favorite recipe, and you’re going to ‘double the recipe’. What does it mean to double a recipe?” Students “draw a diagram that shows the amount of flour and vanilla needed for two batches of cookies” given that a recipe for one batch of cookies calls for 5 cups of flour and 2 teaspoons of vanilla. In Unit 6, Lesson 10, Activity 10.3, students observe a variety of partitioned rectangles. For each rectangle, students write expressions for the length and width and two expressions for the total area. Students record their findings in a table and discuss any disagreements with their group. The purpose of this activity is to generate equivalent expressions with the distributive property that represent the area of a rectangle with an unknown length (LSSM 6.EE.A.3 and LSSM 6.EE.A.4).</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<p>5d) Support for English Language Learners and other special populations is provided. The language in which problems are posed is not an obstacle to understanding the content, and if it is, additional supports (suggestions for modifications, “vocabulary to preview”, etc.,) are included.</p>	<p>Yes</p>	<p>Materials include support for English Learners (EL) and other special populations. Supports and practices are embedded in the materials to help teachers support ELs by addressing the “specialized academic language demands in math.” In addition, supports and practices to support students with disabilities are also embedded in the lesson activities. Each Unit Overview includes a Progression of Language Development. Language goals are embedded in lessons and activities and describe the language demands of the lesson. Additionally, Math Language Routines are embedded throughout the materials to support all students, but specifically ELs, and include: MLR: Stronger and Clearer Each Time; MLR 2: Collect and Display; MLR 3: Clarify, Critique, Correct; MLR 4: Information Gap; MLR 5: Co-Craft Questions; MLR 6: Three Reads; MLR 7: Compare and Connect; and MLR 8: Discussion Supports. For example, in Unit 8, Lesson 2, Activity 2.2, students develop statistical questions from numerical data sets. For ELs, the guidance suggests that teachers should display the chart with the five datasets without revealing the questions that follow, and, then, ask students to create possible survey questions that could lead to these data sets. Guidance suggests that ELs should participate in conversation prior to completing this activity. In Unit 4, Lesson</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>7, Activity 7.3, guidance suggests pairing students with disabilities with their previously identified peer tutors and allow students who struggle with fine motor skills to dictate how to draw the tape diagrams as needed. Unit 8, Lesson 17, Activity 17.2, students practice analyzing box plots. Guidance for ELs states, “Conversing: This activity uses MLR 4 Information Gap to give students a purpose for discussing information necessary to solve problems involving analyzing box plots.” Guidance for students with disabilities states, “Conceptual Processing: Eliminate Barriers. Demonstrate the steps for the activity or game, in which a group of students and staff play an example round while the rest of the class observes.” In Unit 9, Lesson 5, Activity 5.2, the teacher shows pictures of the food choices and uses follow-up questions to assist ELs, such as “What would you like or dislike?”</p>
<p>6. QUALITY OF ASSESSMENTS: Materials offer assessment opportunities that genuinely measure progress and elicit direct, observable evidence of the degree to which students can independently demonstrate the assessed grade-specific Louisiana Student Standards for Mathematics.</p>	<p>Required 6a) Multiple assessment opportunities are embedded into content materials and measure student mastery of standards that reflect the balance of the standards as presented in materials.</p>	<p>Yes</p>	<p>Multiple assessment opportunities are embedded into content materials that measure student mastery of standards that reflect the balance of the standards as presented in the materials. Each unit begins with a Pre-Diagnostic Assessment that assesses prerequisite skills and concepts in addition to skills and concepts of the upcoming unit. Lesson activities include expected student responses and potential misconceptions that support the teacher in adjusting instruction when</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>Required 6b) Assessment items include a combination of tasks that require students to demonstrate conceptual understanding, demonstrate procedural skill and fluency, and apply mathematical reasoning and modeling in real world context. Assessment items require students to produce answers and solutions, arguments, explanations, and models, in a grade/course-appropriate way.</p>	<p>Yes</p>	<p>necessary. Each lesson ends with a Cool Down that is used as a formative assessment that teachers can use to provide student feedback and/or make instructional decisions. Each lesson also includes a set of cumulative Practice Problems for additional practice. Longer units include a Mid-Unit Assessment to assess student learning of the unit lessons up to the point of administration. Finally, each unit includes an End-of-Unit Assessment to assess students on what they have learned at the end of a unit. All summative assessments, including the Pre-Unit Diagnostic, Mid-Unit Assessment, and End-of-Unit Assessment include solutions and standards alignment.</p> <p>Assessment items include a combination of tasks that require students to demonstrate conceptual understanding, demonstrate skill and fluency, and apply mathematical reasoning and modeling in real world context. Assessment items require students to produce answers and solutions, arguments, explanations, and models, in a grade-appropriate way. On the Mid-Unit and End-of-Unit Assessment, problem types include multiple-choice, multiple response, matching, short answer, restricted constructed response, and extended response. For example, in Unit 2, End-of-Unit Assessment, Problem 4, students complete a table to find the unit rate of constant speed using information from the table with distance</p>

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			<p>and time (LSSM 6.RP.A.3), aligning to the rigor expectation of procedural skill and fluency and application. On Unit 3, End-of-Unit Assessment, Problem 6, students provide a written justification about whether a watermelon, weighing 7.5 kilograms, or a baby, weighing 12 pounds, weighs more (LSSM 6.RP.A.3d), aligning to the rigor expectation of conceptual understanding and procedural skill and fluency. In Unit 7, End-of-Unit Assessment, Problem 4, given a scenario, students plot values on a number line that include absolute values (LSSM 6.NS.C.7), aligning to the rigor expectation of conceptual understanding. On Unit 8, Mid-Unit Assessment, Problem 4, students use data about the height of 20 flowers in the school garden, create a histogram to display the data, and analyze the histogram to determine the typical length for the 20 flowers (LSSM 6.SP.A.3 and LSSM 6.SP.B.4), aligning to the rigor expectation of conceptual understanding and procedural skill and fluency.</p>
	<p>6c) Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and provide sufficient guidance for interpreting student performance, misconceptions, and targeted support to engage in core instruction.</p>	<p>Yes</p>	<p>Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and provide sufficient guidance for interpreting student performance, misconceptions, and targeted support to engage in core instruction. For each Mid-Unit and End-of-Unit Assessment, each item includes the assessed LSSM and correct solution. Constructed response</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>items include a rubric with sample responses and the alignment of those sample responses to the following Tiers: “Minimal Tier 1 response: Work is complete and correct; with complete explanation or justification. Tier 2 response: Work shows general conceptual understanding and mastery, with some errors or correct work with insufficient explanation or justification; Tie 3 response: Significant errors in work demonstrate lack of conceptual understanding or mastery. The assessments do not include a clear rubric with point values for the teachers to interpret student results, but do include sample errors and correct answers that could be used as guidance on how to support students. For example, in the Unit 2, End-of-Unit Assessment, Problem 7 states, “To make orange fizz, Noah mixes 4 scoops of powder with 6 cups of water. Andre mixes 5 scoops of powder with 8 cups of water.” Students create a double number line to represent Noah and Andre’s mixture then compare the taste of the two mixtures and explain their reasoning (LSSM 6.RP.A.1 and LSSM 6.RP.A.3). The rubric provides a table for Noah and Andre’s mixture followed by stating that Noah’s recipe tastes stronger. A Tier 1 response indicates that “work is complete and correct, with complete explanation or justification” and “acceptable errors: some mixing up of the</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>terms cup and scoop”. A Tier 2 response indicates that “work shows good conceptual understanding and mastery, with either minor errors or correct work with insufficient explanation or justification” and “acceptable errors: a good explanation to part c is based on incorrect powder/water combinations found in parts a and b.” A Tier 3 response indicates that “work shows a developing but incomplete conceptual understanding, with significant errors.”</p>
<p>7. ADDITIONAL INDICATORS OF QUALITY: Materials are well organized and provide teacher guidance for units and lessons.</p> <p>Materials provide timely supports to target specific skills/concepts to address students’ unfinished learning in order to access grade-level work.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Required 7a) The content can be reasonably completed within a regular school year and the pacing of content allows for maximum student understanding. The materials provide guidance about the amount of time a task might reasonably take.</p>	<p>Yes</p>	<p>Materials do not provide comprehensive assessments that measure student learning up to the point of administration. The materials only include unit and lesson-level assessments including Cool Downs, cumulative practice problems, Pre-Unit Diagnostic Assessments, Mid-Unit Assessments, and End-of-Unit Assessments.</p> <p>The content can be reasonably completed within a regular school year and the pacing of content allows for maximum student understanding. Based on the Grade 6 Course Guide and the pacing calendar, the course will take approximately 36 weeks to complete all the units, and the pre-unit diagnostic, mid-, and end-of-unit assessments. Based on the structure of the lesson, teachers can accomplish one lesson a day. The lesson materials are broken down into chunks, including a Warm-up, classroom activities, Lesson Synthesis, and a Cool Down. The</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<p>Required 7b) The materials are easy to use and well organized for students and teachers. Teacher editions are concise and easy to manage with clear connections between teacher resources. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help prompt student thinking, and expected student outcomes.</p>	<p>Yes</p>	<p>materials include a total of 145 lessons for core instruction, including optional lessons. For example, Unit 1 takes approximately 22 days to complete. Unit 3 takes approximately 19 days to complete. Unit 8 takes approximately 21 days to complete.</p> <p>The materials are easy to use and well organized for students and teachers. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help prompt student thinking, and expected student outcomes. Each unit begins with an Overview that includes a Progression of Disciplinary Language that notes which lesson the students encounter the language. The units are further broken down into lessons that include the overall Learning Goals, Student Learning Goals, Student Learning Target, Required Materials, Required Preparation, Word and PDF lesson material downloads, and Standards Alignment for that lesson. The Word and PDF downloads consist of materials such as Student Task Statements, Practice Problems, and Cool Downs. The Lesson Standards Alignment includes the standard(s) addressed in the lesson, as well as Building On and Building Towards standards, when applicable. A Lesson Narrative is provided at the start of each lesson that includes the purpose of the lesson, student expectations, possible connections to prior or future learning,</p>

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			<p>and any additional guidance needed for the lesson. The teacher materials provide guidance for lesson delivery, instructional routines, Support for Students with Disabilities, Support for English Learners, sample student responses, anticipated misconceptions, and a synthesis for each activity. The Course Guide provides additional guidance such as About These Materials, How to Use These Materials, Assessments Overview, Scope and Sequence, Standards by Lesson, Lessons by Standard, Glossary, and Required Materials. Supports are embedded in the teacher materials at the lesson level providing ease of use for instructing and supporting students. Each Unit includes quick access tabs to an Overview, a dropdown for all lessons within the unit, Assessments, Family Materials, and Unit Downloads. At the lesson level, teachers can quickly access all parts of the lesson including Preparation, Warm-up, Activities, Lesson Synthesis, Cool Down, Glossary Terms, and Practice Problems.</p>
	<p>Required 7c) Materials include unit and lesson study tools for teachers, including, but not limited to, an explanation of the mathematics of each unit and mathematical point of each lesson as it relates to the organizing concepts of the unit and discussion on student ways of thinking and anticipating a variety of student responses.</p>	<p>Yes</p>	<p>Materials include unit and lesson study tools for teachers. The Unit Overview includes a detailed explanation for teachers about the connections to previous grade levels along with an explanation of how the unit develops the standards. The Unit Overview provides an explanation of the mathematics addressed in the unit including mathematical representations used within and across</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>the lessons, concepts and skills the students will develop and/or practice, and examples of what students will learn across the lessons. The Unit Overview also includes a Progression of Disciplinary Language that details the disciplinary language teachers should anticipate students using for mathematical purposes. Each term includes examples and the associated lessons the language will be used. This section is followed by a chart that details new terminology for the unit. The chart shows “where the new terminology is first introduced, including when students are expected to understand the word or phrase receptively and when students are expected to produce the word or phrase in their own speaking and writing.” By reviewing the Unit Overview prior to teaching the unit, teachers develop an understanding of the unit progression, how the unit connects back to previous learning, as well as how disciplinary language progresses through the unit. Each lesson includes a Lesson Narrative that explains the mathematical content of the lesson and how it is placed in the learning sequence, the meaning of any new terms introduced in the lesson, and how the mathematical practices are developed and utilized, as appropriate. Additionally, the activities also include a narrative that explains the mathematical purpose of the unit and how it is placed in the learning sequence, what students do</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<p data-bbox="575 488 1226 586">7d) Materials identify prerequisite skills and concepts for the major work of the grade/course, connected to the current on-grade/course-level work.</p>	<p data-bbox="1339 488 1381 513">Yes</p>	<p data-bbox="1465 204 1978 480">during the activity, student look-fors and possible misconceptions, and connections to the practice standards. By reviewing the Lesson and Activity Narratives, teachers develop an understanding of what students are expected to know and do, struggles that may occur, and suggestions to support all students.</p> <p data-bbox="1465 488 1978 1440">Materials identify prerequisite skills and concepts for the major work of the grade. Each unit includes a Pre-Unit Diagnostic Assessment that assesses prerequisite skills and concepts along with a few items addressed within the unit. Each item includes the standard(s) addressed, noting the prerequisite standards the students need to access grade-level work within the unit. The Unit Overview also includes the prerequisite knowledge students should have developed prior to the unit in order to build upon and extend their learning with grade-level work. Lesson Warm-ups are often used to recall prior knowledge in order to connect previous learning to current learning. For example, in the Unit 5 Pre-Unit Diagnostic Assessment, Problem 1, students solve base-ten diagrams and explain the meaning of the individual squares and those grouped together as ten (LSSM 5.NBT.A.1). In Unit 5, Lesson 2, Activity 2.1, students review place value when working with decimals (LSSM 5.NBT.A.1). The prerequisite skill connects to LSSM 6.NS.B.3 in Activity 2.3. In Activity 2.3, students use their</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			prerequisite skills to add decimals by using base-ten numbers and need to explain their reasoning. In Unit 2, students work with ratios. The Course Guide states that in Grade 3, students “worked with relationships that can be expressed in terms of ratios and rates,” without specifically using the terms ratio and rate. In Grade 4, students “studied multiplicative comparison,” and, in Grade 5, they “interpret multiplication as scaling, preparing students to think about simultaneously scaling two quantities by the scale factor.”
	<p>7e) Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, on-grade/course-level work.</p>	Yes	Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, on grade-level work. Each unit begins with a Pre-Unit Diagnostic Assessment that assesses prerequisite skills necessary for the unit. Each assessment problem identifies the targeted prerequisite standard and explains why the prerequisite skill is necessary for the grade-level topic. Teachers can use the assessment results to identify students who need prerequisite work to successfully engage in core instruction.
	<p>7f) Materials provide targeted, aligned, prerequisite work for the major work of the grade/course, directly connected to specific lessons and units in the curriculum.</p>	No	Materials do not provide targeted, aligned, prerequisite work for the major work of the grade, directly to specific lessons and units in the curriculum. While the Pre-Unit Diagnostic Assessment identifies students who need prerequisite

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>work, the materials do not provide the work for students. Instead, guidance states, “Look for opportunities within the upcoming unit where the target skill could be addressed in context. For example, an upcoming task might require fraction addition. Ask a student who can do the skill to present their method, then attend carefully to students as they work through the task. If difficulty persists, add more opportunities to practice the skill, by adapting tasks or practice problems. The Lessons By Standard chart can assist in identifying opportunities available for students to engage with challenging concepts identified by the Pre-unit Diagnostic Assessment results.”</p>
	<p>7g) Materials provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.</p>	<p>No</p>	<p>Materials do not provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.</p>
<p>FINAL EVALUATION <i>Tier 1 ratings</i> receive a “Yes” for all Non-negotiable Criteria and a “Yes” for each of the Additional Criteria of Superior Quality. <i>Tier 2 ratings</i> receive a “Yes” for all Non-negotiable Criteria, but at least one “No” for the Additional Criteria of Superior Quality. <i>Tier 3 ratings</i> receive a “No” 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-negotiable Criteria of Superior Quality⁴</p>	<p>1. Focus on Major Work</p>	<p>Yes</p>	<p>Materials devote a large majority of time to the major work of the course. Materials spend minimal time on content outside of the appropriate grade level. In assessment</p>

⁴ Must score a “Yes” for all Non-negotiable Criteria to receive a Tier I or Tier II rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			materials, assessment components do not make students responsible for any topics before the grade in which they are introduced.
	2. Consistent, Coherent Content	Yes	Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year. Materials include problems and activities that connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important.
	3. Rigor and Balance	Yes	Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in the standards. Materials are designed so that students attain the fluencies and procedural skills required by the standards. Materials are designed so that students spend sufficient time working with engaging applications. It is evident in the materials that the three aspects of rigor are not always treated together and are not always treated separately.
	4. Focus and Coherence via Practice Standards	Yes	Materials attend to the full meaning of each practice standard. Each practice standard is connected to grade/course-level content in a meaningful way and is present throughout the year in assignments, activities, and/or problems. Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			concerning key grade/course-level mathematics that is detailed in the content standards. Materials explicitly attend to the specialized language of mathematics. Mathematical language is emphasized throughout the lessons within each mission. Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development.
II: Additional Alignment Criteria and Indicators of Superior Quality⁵	5. Alignment Criteria for Standards for Mathematical Content	Yes	Materials provide all students with extensive work with grade-level problems. Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge is extended to accommodate the new knowledge, building to core instruction, on grade-level work. Lessons are appropriately structured and scaffolded to support student mastery. There is variety in what students produce. Support for English Learners and other special populations is provided.
	6. Quality of Assessments	Yes	Multiple assessment opportunities are embedded into content materials and measure student mastery of standards that reflect the balance of the standards as presented in materials. Assessment items include a combination of tasks that require students to demonstrate conceptual understanding, demonstrate

⁵ Must score a "Yes" for all Additional Criteria of Superior Quality to receive a Tier I rating.

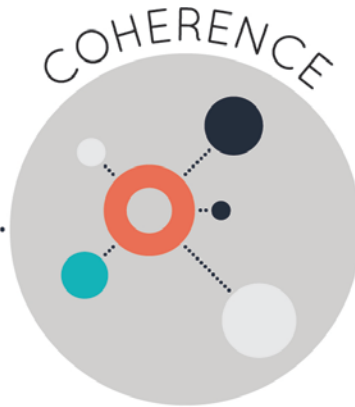
CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>procedural skill and fluency, and apply mathematical reasoning and modeling in real-world context. Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and provide sufficient guidance for interpreting student performance, misconceptions, and targeted support to engage in core instruction. However, materials do not provide comprehensive assessments that measure student learning up to the point of administration.</p>
	7. Additional Indicators of Quality	Yes	<p>The content can be reasonably completed within a regular school year and the pacing of content allows for maximum student understanding. The materials are easy to use and well organized for students and teachers. Materials include unit and lesson study tools for teachers. Materials provide targeted, aligned, prerequisite work for the major work of the grade/course, directly connected to specific lessons and units in the curriculum. Materials identify prerequisite skills and concepts for the major work of the grade. Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, on-grade-level work. However, materials do provide targeted, aligned, prerequisite work for the major work of the grade, directly connected to specific lessons and units in the curriculum. Materials do not provide clear</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.
FINAL DECISION FOR THIS MATERIAL: <u>Tier 1, Exemplifies 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: **Open Up Resources Math 2nd Edition**

Grade/Course: **7**

Publisher: **Open Up Resources**

Copyright: **2019**

Overall Rating: **Tier 1, Exemplifies quality**

Tier 1, Tier 2, Tier 3 Elements of this review:

STRONG	WEAK
1. Focus on Major Work (Non-negotiable)	
2. Consistent, Coherent Content (Non-negotiable)	
3. Rigor and Balance (Non-negotiable)	
4. Focus and Coherence via Practice Standards (Non-negotiable)	
5. Alignment Criteria for Standards for Mathematical Content	
6. Quality of Assessments	
7. Indicators of Quality	

To evaluate instructional materials for alignment with the standards and determine tiered rating, begin with

Section I: Non-negotiable Criteria.

- Review the **required**¹ Indicators of Superior Quality for each **Non-negotiable** criterion.
- If there is a “Yes” for all **required** Indicators of Superior Quality, materials receive a “Yes” for that **Non-negotiable** Criterion.
- If there is a “No” for any of the **required** Indicators of Superior Quality, materials receive a “No” for that **Non-negotiable** Criterion.
- Materials must meet **Non-negotiable** Criterion 1 and 2 for the review to continue to **Non-negotiable** Criteria 3 and 4. Materials must meet all of the **Non-negotiable** Criteria 1-4 in order for the review to continue to Section II.
- If materials receive a “No” for any **Non-negotiable** Criterion, a rating of Tier 3 is assigned, and the review does not continue.

If all Non-negotiable Criteria are met, then continue to **Section II: Additional Criteria of Superior Quality.**

- Review the **required** Indicators of Superior Quality for each criterion.
- If there is a “Yes” for all **required** Indicators of Superior Quality, then the materials receive a “Yes” for the additional criteria.
- If there is a “No” for any **required** Indicator of Superior Quality, then the materials receive a “No” for the additional criteria.

Tier 1 ratings receive a “Yes” for all Non-negotiable Criteria and a “Yes” for each of the Additional Criteria of Superior Quality.

Tier 2 ratings receive a “Yes” for all Non-negotiable Criteria, but at least one “No” for the Additional Criteria of Superior Quality.

Tier 3 ratings receive a “No” for at least one of the Non-negotiable Criteria.

¹ **Required Indicators of Superior Quality** are labeled “**Required**” and shaded yellow. Remaining indicators that are shaded white are included to provide additional information to aid in material selection and do not affect tiered rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
Section I: Non-negotiable Criteria of Superior Quality: Materials must meet Non-negotiable Criteria 1 and 2 for the review to continue to Non-negotiable Criteria 3 and 4. Materials must meet all of the Non-negotiable Criteria 1-4 in order for the review to continue to Section II.			
<p>Non-negotiable 1. FOCUS ON MAJOR WORK²: Students and teachers using the materials as designed devote the large majority³ of time to the major work of the grade/course.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Required 1a) Materials devote the majority of class time to the major work of each grade/course.</p>	<p>Yes</p>	<p>Materials devote a larger majority of time to the major work of eighth grade. Of the 134 instructional lessons, 70% are spent on major work of the grade. Specifically, 51% of lessons are spent on major standards, 19% of lessons are spent on a combination of major standards and supporting/additional standards, and 30% of lessons are spent on supporting or additional standards. Unit 9 includes ten optional lessons.</p>
	<p>Required 1b) Instructional materials, including assessments, spend minimal time on content outside of the appropriate grade/course during core math instruction. Content beyond grade/course-level should be clearly labeled as optional.</p>	<p>Yes</p>	<p>Materials spend minimal time on content outside of the appropriate grade level during core math instruction. In assessment materials, assessment components do not make students/teachers responsible for any topics before the grade in which they are introduced. The lessons that go beyond the scope of the Grade 7 Louisiana State Standards for Mathematics (LSSM) are clearly marked as optional. For example, Unit 9, all lessons are labeled as optional, but standards addressed in the unit are addressed in prior units. The unit provides an “optional opportunity to go deeper and make connections between domains.” However, some of the optional lessons go beyond</p>

² For more on the major work of the grade, see [Focus by Grade Level](#).

³ 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%.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>the grade-level expectations. For example, Unit 9, Lesson 5 is labeled as optional as it “begins students’ transition from contexts that involve constant rates to contexts that involve average rates of change.”</p> <p>Teacher guidance notes that although the average rate of change is an Algebra I standard, the lesson provides students the optional opportunity to make deeper connections between domains. The Open Up Resources 6-8 Math - Louisiana Implementation Guide suggests adding the following lesson components and assessments items from Grade 6 to ensure full coverage of LSSM 7.SP.B.3: Lesson 11, Activities 3-4, Cool Down; Lesson 12, Activities 2-3, Cool Down; Lesson 18, Activity 2, Question 1b, 2, 4, Activity 3; Unit 8 Mid-Unit Assessment items 6, and 7. In addition, the guide suggests adding supplemental work to Unit 7 to “solve real-world and mathematical problems involving the surface area of pyramids.” All other lessons relate to grade-level work and align to the Grade 7 LSSM. Warm-ups spend minimal time on content outside of the appropriate grade level to help students recall prior knowledge or to provide fluency practice. The teacher lesson materials indicate Building On standards from previous grade levels. For example, in Unit 3, Lesson 1 addresses LSSM 7.RP.A.2a and builds on LSSM 6.RP.A.3c. During Activity 1.1, the Warm-up prepares students to “think about</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>making estimates of quotients” as it builds on from LSSM 6.RP.A.3c and builds toward LSSM 7.RP.A.3. In Activity 1.2, students determine the “relationship between the length of the diagonal and perimeter for squares of different sizes” (LSSM 7.RP.A.2a and 7.G.B.4). In Activity 1.3, students compare length of each side to the diagonal to its area to calculate the area of the squares (LSSM 7.RP.A.2a). In Activity 1.4, Cool Down, students analyze the graphs to determine the proportional relationship (LSSM 7.RP.A.2a).</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.</p>	<p>Yes</p>	<p>Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year. Culminating lessons are provided to connect major and supporting content. Major work is often developed and then reinforced in lessons that address supporting standards. Supporting work is not introduced until Unit 8, while the major work reinforced in the Unit 8 lessons is developed in prior units. For example, students begin to develop an understanding of LSSM 7.RP.A in Unit 2 and Unit 4. This major work is reinforced later in Unit 8, Lesson 4 which connects supporting standards in Statistics and Probability (SP) to major standards from Ratios and Proportional Relationships (RP). For example, in Activity 4.3, students “estimate the probability” of a coin landing on heads. Students determine what would happen if you “flip</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>a coin 100 times, how many times would you expect the coin to land heads up?" Students use a real-world problem to determine the proportionality (supporting LSSM 7.SP.C.6, major LSSM 7.RP.A). Unit 8, Lesson 7 connects major standards from the Ratios and Proportional Relationships (RP) domain and supporting standards in the Statistics and Probability (SP) domain. In Activity 7.5, Cool Down, students observe simulation data about two batteries and "estimate the probability that at least one battery will die before 15 hours" has passed (LSSM 7.SP.C.8.c and 7.RP.A).</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.</p>	<p>Yes</p>	<p>Materials include problems and activities that connect two or more clusters in a domain and/or two or more domains in the grade level where these connections are natural and important. For example, Unit 1, Lesson 6, Activity 1, connects Clusters A (Draw, construct, and describe geometrical figures and describe the relationships between them) and B (Solve real-life and mathematical problems involving angle measure, area, surface area, and volume) of the Geometry (G) domain. Students use pattern blocks to build scaled copies using blocks of the same shape to do so and determine the number of blocks needed to create a copy at each specified scale factor. Students determine that the area of the scaled copy is related to the original area by the square of the scaled factor of each shape</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>described in the task and determine the amount of blocks needed to create a copy to determine the scale factor (LSSM 7.G.A.1 and 7.G.B.6). Unit 5, Lesson 15, connects the Number System (NS) and Expressions and Equations (EE) domains. Students extend their understanding of solving equations with positive values to solving equations using rational numbers. In Activity 15.2, students match equations to a value that makes it true and explain their reasoning, such as $x = -3.5$ matches to $-2x = 7$. Then, in Activity 15.3 students interpret equations that represent scenarios and understand that equations in the form $x + p = q$ can be solved by adding the opposite of p to the equation, regardless if p is positive or negative. Likewise, students determine that equations of the form $px = q$ can be solved by multiplying the equation by the reciprocal of p. Students engage in problems such as, "The members increased their elevation 290 feet during their hike this morning. Now they are at an elevation of 450 feet." Students extend their thinking as they consider, "Han says the equation $e + 290 = 450$ describes the situation. What does the variable e represent?" and "Han says that he can rewrite his equation as $e = 450 + (-290)$ to solve for e. Compare Han's strategy to your strategy for finding the beginning elevation" (LSSM 7.EE.B.4.a and 7.NS.A.3).</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
<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.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Required 3a) Attention to Conceptual Understanding: Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by featuring high-quality conceptual problems and discussion questions.</p>	<p>Yes</p>	<p>Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in the standards. The instructional materials develop conceptual understanding of grade-level content through scaffolds, conceptual problems, and discussion questions throughout each lesson. In addition, students use various models and representations, such as diagrams, graphs, number lines, and equations to build conceptual understanding over time. For example, in Unit 2, Lesson 2, students begin to develop the concept of constant proportionality by looking at tables of equivalent ratios (LSSM 7.RP.A.2b). In Activity 2.1, students analyze a table that shows how many rolls of paper towels a store receives when they order a different number of cases. Students notice and wonder about the data. The purpose of the activity is to notice the relationship between the quantities. In Activity 2.2, students use a table to analyze the relationship between cups of rice and the number of people, and another table to analyze the relationship between the number of spring rolls and the number of people. Once students complete the tables and share their reasoning and make connections between the different approaches, the teacher introduces the term proportional relationship. In Activity 2.3, students continue to develop their</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>understanding of the constant of proportionality as they use discrete diagrams and double number lines to find missing values of ratios for tablespoons of honey and cups of flour. In Unit 5, students develop conceptual understanding within the Number System (NS) domain. Throughout the unit, a number line is used to help students conceptualize the mathematical procedures involved. For example, in Lesson 2, Activity 2.2, students use a number line to answer the following question: “If the temperature starts at 40 degrees and increases 10 degrees, what will the final temperature be?” Students complete temperature problems by reasoning through the temperature change using whatever method makes sense, then drawing a diagram to show the temperature change and finally, by writing an equation to represent the situation. Students answer the following questions: “How can we represent a sum of two numbers?” and “How can we determine the sum from the diagram?” (LSSM 7.NS.A.1b). In Lesson 5, Activity 5.2, students work independently to interpret a number line with an arrow to understand the additive inverse. Students discuss and critique their findings with a partner about the equation for Mai ($3+?=8$) and Tyler ($8- 3=?$) along with the missing addends to develop their</p>

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	<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 content 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>conceptual understanding of LSSM 7.NS.A.1c.</p> <p>Materials are designed so that students attain the fluencies and procedural skills required by the standards. Major standards give attention throughout the year to build fluency. Students build and consolidate conceptual understanding before shifting towards procedural skill and fluency. Fluency is provided throughout activities to build on previously taught skills and concepts. In addition, the materials include lessons that focus solely on procedural skill and fluency as called for by the standards. Every lesson begins with a Warm-up that either helps students prepare for the lesson or to provide students the opportunity to strengthen their number sense and procedural skill. Warm-ups that focus on number sense and procedural skill prompt students to engage in “mental arithmetic or reason numerically or algebraically.” Each lesson includes an associated set of practice problems. The set includes a few problems from that day’s lesson along with a mix of topics from previous lessons. The materials include guidance that states, “Distributed practice (revisiting the same content over time) is more effective than massed practice (a large amount of practice on one topic, but all at once).” For example, in Unit 6, Lesson 21, five practice problems address the Learning Goal</p>

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			<p>aligned to LSSM 7.EE.A.1. However, problem 6 states, “A certain shade of blue paint is made by mixing quarts of blue paint with 5 quarts of white paint. If you need a total of 16.25 gallons of this shade of blue paint, how much of each color should you mix?” (7.RP.A.1). In Unit 4, Lesson 2, Activity 2.3, students observe two different distances and hours for two different people. Students analyze one of the scenarios based on the selection of questions, such as “How far did Noah run in 1 hour.” The students write an equation and fluently solve to compute unit rates associated with ratios of fractions (LSSM 7.RP.A.1). In Unit 6, Lesson 20, Warm-Up, students explain why each of the following statements are true: $5 + 2 + 3 = 5 + (2 + 3)$ $9a$ is equivalent to $11a - 2a$, and $8a - (8a - 8)$ is equivalent to 8. As students provide explanations, they work toward fluency in writing expressions with fewer terms.</p>
	<p>Required 3c) Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications, including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content standards where expectations for multi-step and real-world problems are explicit.</p>	<p>Yes</p>	<p>Materials are designed so that students spend sufficient time working with engaging applications, including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade, afford opportunities for practice, and engage students in problem solving. Each unit includes activities that allow students to apply key concepts to solve real-world problems that can be found throughout the units embedded into activities within</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>the lessons. For example, in Unit 4, Lesson 6, Activity 6.2, students engage in tasks where they determine percent increase and decrease of real-world scenarios, such as having a shirt that is on sale 20% off the original cost. Item 1 states, “A cereal box says that now it contains 20% more. Originally, it came with 18.5 ounces of cereal. How much cereal does the box come with now?” and Item 2 states, “The price of a shirt is \$18.50, but you have a coupon that lowers the price by 20%. What is the price of the shirt after using the coupon?” (LSSM 7.RP.A.3).</p> <p>Throughout Unit 6, students model a real-world situation and explain solutions and why they make sense (LSSM 7.EE.B.4). For example, in Lesson 14, Activity 14.2, students solve the following problem, “Andre has a summer job selling magazine subscriptions. He earns \$25 per week plus \$3 for every subscription he sells. Andre hopes to make at least enough money this week to buy a new pair of soccer cleats.” Students represent the situation as an inequality and answer questions, such as “If Andre sold 16 magazine subscriptions this week, would he reach his goal? Explain your reasoning.” In Activity 14.3, students use the following information to solve a problem: “Kiran has \$100 saved in a bank account. (The account doesn’t earn interest.) He asked Claire to help him figure out how much he could take out each month if he needs to have at least</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<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>\$25 in the account a year from now.” From all the values that work, students choose which values make sense (LSSM 7.EE.B.4).</p> <p>It is evident in the materials that the three aspects of rigor are not always treated together and are not always treated separately. Lessons address the three components of rigor separately as well as together. For example, Unit 6, Lesson 2, integrates all three aspects of rigor. In Activity 2.1, Warm-up, students conceptually understand how to use variables to represent quantities for two tape diagrams and ask how they decided on the values. In Activity 2.2, students solve application scenarios using a tape diagram that represents the scenario. For example, “Mai made 50 flyers for five volunteers in her club to hang up around school. She gave 5 flyers to the first volunteer, 18 flyers to the second volunteer, and divided the remaining flyers equally among the three remaining volunteers.” Students first explain why the diagram represents the story and then work together to find the unknown amounts (LSSM 7.EE.B.3). In Activity 2.3, students continue to apply conceptual understanding and procedural skill as they draw tape diagrams to solve real-world scenarios. For example, students solve the following problem: “Noah and his sister are making gift bags for a birthday party. Noah puts 3 pencil erasers in each bag. His</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>sister puts x stickers in each bag. After filling 4 bags, they have used a total of 44 items.” Students draw a tape diagram to represent the story, find the unknown amount, and then describe how they found the unknown amount (LSSM 7.EE.B.4). Unit 5, Lesson 2 integrates conceptual understanding and procedural skill and fluency. Students use the context of temperature to make sense of adding signed numbers. First, they reason about temperature increases and decreases on a number line and then connect the temperature changes by adding positive numbers for increases and adding negative numbers with decreases. During the activity, students represent changing temperatures on number lines, write addition statements, and find the sum (7.NS.A.1).</p>
<p>Non-negotiable 4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS: Aligned materials make meaningful and purposeful connections that promote focus and coherence by connecting practice standards with content that is emphasized in the Standards. Materials address the practice standards in a way to enrich and strengthen the focus of the content standards instead of detracting from them.</p>	<p>Required 4a) Materials attend to the full meaning of the practice standards. Each practice standard is connected to grade/course-level content in a meaningful way and is present throughout the year in assignments, activities, and/or problems.</p>	<p>Yes</p>	<p>Materials attend to the full meaning of each practice standard. Each practice standard is connected to grade-level content and is meaningfully present throughout the materials. Practice standards aid in students’ transition from conceptual understanding to procedural skill and application. The materials provide students with an opportunity to engage with the practice standards in each lesson and support students in the development of mathematical practices, contributing to students’ habits of mind. For example, in Unit 4, Lesson 3, Activity 3.4, make sense of problems involving proportional</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			<p>relationships with fractions and persevere in solving them (MP.1; LSSM 7.RP.A.1). For example, students solve the following problem, “Lin runs $2\frac{3}{4}$ miles in $\frac{2}{5}$ of an hour. Tyler runs $8\frac{2}{3}$ miles in $\frac{4}{3}$ of an hour. How long does it take each of them to run 10 miles at that rate?” In Unit 4, Lesson 6, Activity 6.2, students attend to precision (MP.6) as they solve and explain percent increase and decrease problems (LSSM 7.RP.A.3). For example, students determine how much cereal is included in a cereal box that originally came with 18.5 ounces but increased by 20%. Students also reason abstractly and quantitatively (MP.2) as they interpret the meaning of percent increase and decrease within the problems. In Unit 5, Lesson 7, Activity 7.3, students solve a problem about the electricity usage and electricity generated from solar panels on their bill in a data table. Students attend to precision (MP.6) to calculate the total bill. Students also interpret what a positive and negative sign means in regards to money generated with the generator and the electricity used (LSSM 7.NS.A.3). In Activity 7.4, students look for and make use of structure as they plot points on an interactive graph and explain the difference in x-coordinates (LSSM 7.NS.A.1c and 7.NS.A.3). In Unit 8, Lesson 10, students consider available tools to make mathematical decisions (MP.5). In Activity 10.3, students design a simulation to estimate a probability using</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<p>Required 4b) Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade/course-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.</p>	<p>Yes</p>	<p>number cubes, compasses, protractors, rulers, paper bags, colored snap cubes, scissors, and coins. In addition, students present arguments (MP.3) for the simulation method they choose (LSSM 7.SP.C.8c).</p> <p>Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key course-level mathematics that is detailed in the content standards. The materials provide opportunities for students to engage in mathematical reasoning through viable arguments and critique student work and opportunities for students to discuss their thinking and reasoning for the strategies they used to solve problems throughout the materials. For example, in Unit 4, Lesson 4, Activity 4.2, students compare Mai and Kiran’s equations and determine whether they agree with either of the equations and explain their reasoning (LSSM 7.RP.A.3). In optional Activity 6.4, students solve two tasks and determine if they agree or disagree with each statement and explain their reasoning (LSSM 7.RP.A.3). For example, two employees obtain two different pay raises in percent. Students determine if the statement who received the bigger pay raise is correct or not and explain their reasoning. In Unit 4, Lesson 16, students critique the work of others and provide meaningful feedback. In Activity 16.3, students choose a</p>

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			<p>newspaper clipping about a percent increase or decrease. Using the clipping, students draw a diagram and write two questions that can be answered by the information. Once the information is placed on a poster, students participate in a gallery walk. Students leave feedback that can include constructive comments or questions. Students then have the opportunity to use the feedback to improve their display (LSSM 7.RP.A.3). In Unit 6, Lesson 11, Activity 11.3, students solve word problems that can be represented by equations in the form $p(x + q) = r$ or $px + q = r$ (LSSM 7.EE.B.3 and 7.EE.B.4). Students create a visual display of the problems and engage in a gallery walk. Students use sticky notes to leave questions or comments on the visual displays. Students return to their own display and review the questions and comments. In Unit 8, Lesson 5, Activity 5.2, students use digital spinners to calculate probabilities. At the end of the task, students solve scenarios where they create a viable argument and explain their reasoning (LSSM 7.SP.C.7.b and 7.SP.C.6).</p>
	<p>Required 4c) Materials explicitly attend to the specialized language of mathematics.</p>	<p>Yes</p>	<p>Materials explicitly attend to the specialized language of mathematics. Mathematical language is emphasized throughout the lessons within each unit. Typically, terms are not identified until students have the opportunity to learn about the concept and then formalize a definition. The materials include</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>instructional routines intended to support students in mathematical language development, such as Information Gap, Algebra Talk. During Information Gap, one partner gets a Problem Card that does not have enough information, while the other student gets the data card relevant to the Problem Card. Students ask each other questions to determine the data needed to solve the problem. The materials use and encourage the use of accurate mathematical terminology when talking about skills, concepts, collusion, and solution process. Embedded into each unit, students have opportunities to engage with mathematical language in answers, explanations, and during mathematical discourse. For example, in Unit 1, Lesson 1, students are introduced to the concept of a scaled copy by observing several copies of pictures that are scaled and unscaled copies. Students first articulate the difference between the copies in their own words, and then, as the lesson progresses, students begin to refine the definition of a scaled copy. In Activity 1.1, Warm-up, students observe different image sizes of a person and explain their reasoning of what a scaled copy means (LSSM 7.G.A.1). In Activity 1.2, students continue to build their understanding of the scaled copy as they look at different drawings of the letter F. Students examine the scaled copies and explain how they compare with the</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>original letter F. Students then create their own scaled copy of the letter F. In Activity 1.3, students further develop their understanding of scaled copy as they produce a pair of polygons and explain why one of the polygons is a scaled copy. In Activity 1.4, Cool Down, students determine the base of the original letter L, which of the figures is a scaled copy, and explain their reasoning. In Unit 8, Lesson 2, Activity 2.2 introduces students to the five categories of likelihood by categorizing situations as impossible, unlikely, equally likely as not, likely, or certain. In Activity 2.4 students continue to work with the new vocabulary by ordering situations from least likely to most likely. Students then create their own examples of situations with each likelihood (LSSM 7.SP.C.5).</p>
	<p>4d) There are teacher-directed materials that explain the role of the practice standards in the classroom and in students’ mathematical development.</p>	<p>Yes</p>	<p>Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students’ mathematical development. The teacher materials and Course Guide provide teachers with insight into which practice standards are utilized in the lessons and their role. This guidance is provided at the unit level in the Unit Overview and also provides teacher-directed guidance within the lesson materials with explanations to develop the practice standards. Instructional routines are embedded in the materials, some of which encourage the use and help</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>students develop the math practices. For example, Clarify, Critique, Correct uses MP.3, Information Gap uses MP.6, Notice and Wonder often incorporates MP.7. For example, in Unit 2, Lesson 3, Activity 3.3, the activity overview discusses the connection to Grade 6 and Grade 7 about reasoning abstractly (MP.2) about constant speed (LSSM 7.RP.A.2). Guidance states, “In grade 6, students solved problems involving constant speed, but they need opportunities to make the connection to proportional relationships; students who successfully make this connection are reasoning abstractly about contexts with constant speed (MP.2). The Activity Synthesis states, “The goal of this discussion is to help students see the connection between this situation and the earlier tasks, so they can use the structure of the table (MP7) to find the constants of proportionality.” The materials provide supporting questions such as “Can you use any of the strategies we have been discussing in earlier problems to help you solve this problem?” to help students make this connection (LSSM 7.RP.A.2b). The Unit 4: Proportional Relationships and Percentages Unit Overview provides several examples of where students utilize the practices. For example, the guidance states, “In the first section of the unit, students extend their use of ratios and rates to problems that involve computing quotients of fractions, and interpreting</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>these quotients in contexts such as scaling a picture or running at constant speed (MP2).” Additionally, guidance states, “In small groups, students identify important quantities in a situation described in a news item, use diagrams to map the relationship of the quantities, and reason mathematically to draw conclusions (MP4). This is an opportunity to choose an appropriate type of diagram (MP5), to state the meanings of symbols used in the diagram, to specify units of measurement, and to label the diagram accurately (MP6). Each group creates a display to communicate its reasoning and critiques the reasoning shown in displays from other groups (MP3).”</p>
Section II: Additional Alignment Criteria and Indicators of Superior Quality			
<p>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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Required 5a) Materials provide all students extensive work with grade/course-level problems.</p>	Yes	<p>Materials provides all students extensive work with course-level problems. Students have the opportunity to learn new math and apply their new learning with extensive grade-level problems. Each lesson begins with a Warm-up to prepare students for the lesson or to strengthen students’ number sense or procedural fluency. This is followed by one or more instructional activities that engage students in new learning or extend previous learning. After completing the activities, the teacher engages students in the Lesson Synthesis and facilitates a discussion to help students synthesize what they learned. Students then</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>complete a Cool Down which serves as a brief summative assessment. Students end the lesson by applying their new learning in Practice Problems. For example, in Unit 2, Lesson 14, students apply what they have learned from the start of the unit as they “examine tables, equations, and graphs of proportional relationships, and use them to reason about relationships that are proportional as well as relationships that are not proportional.” (7.RP.A and 7.RP.A.2). During the Warm-up, students determine which groups of blocks are the bluest as they consider looking at the amount of blue per yellow or looking at the total amount of blue or difference between blue and yellow. In Activity 14.2, students use a list of different items and determine if there is a proportional relationship between the quantities. Students then determine which quantities are not proportional and explain why. Next, students complete four representations for one scenario. The representations include sentences describing the relationship, a data table with at least six pairs relating the two things, a graph of the data table, an equation, and an explanation if the relationship is proportional or not. In Activity 14.3, students make a visual display of their scenarios from Activity 14.2. After engaging in a Lesson Synthesis and Cool Down, students complete two multi-part practice problems in which they</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<p>Required 5b) Materials relate grade/course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge is extended to accommodate the new knowledge, building to core instruction, on grade/course-level work. Lessons are appropriately structured and scaffolded to support student mastery.</p>	<p>Yes</p>	<p>identify proportional relationships, graph the relationships, and solve problems about the relationships.</p> <p>Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses and are designed so that prior knowledge is extended to accommodate new knowledge. Lessons are appropriately structured and scaffolded to support student mastery. Each lesson includes a Lesson Standards Alignment chart that includes Building on, Addressing, and Building toward standards. The Lesson Narrative gives a general description of the lesson with a connection to previous grade-level concepts. The Unit Overviews also makes connections to prior learning and describes how the unit extends this knowledge. For example, in Unit 7, Lesson 1, students examine special angles (LSSM 7.G.A and 7.G.B). The Lesson Narrative states that “Students were introduced to angles in grade 4, when they drew angles, measured angles, identified angles as acute, right, or obtuse, and worked with adding and subtracting angles. Earlier in grade 7, students also touched on angles briefly in their work with scale drawings. Now they begin a more detailed study of angles.” The Lesson Standards Alignment includes the Building on standards as LSSM 4.MD.C.6 and 4.MD.C.7. In Activity 1.2, students work in groups with three</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<p>Required</p> <p>5c) There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade/course-appropriate way, arguments and explanations, diagrams, mathematical models, etc.</p>	<p>Yes</p>	<p>separate figures. Students build on LSSM 4.MD.C.7, recognizing that angle measures are additive, and solve real-life problems determining the angle measure of hexagons (LSSM 7.G.B).</p> <p>In the materials, students produce answers in a variety of ways. Students model their thinking and solutions using various representations such as equations, diagrams, tables, graphs, and number lines. Throughout the lessons and activities, students provide explanations, arguments, and justifications for their solutions. For example, in Unit 2, Lesson 7, Activity 7.2, students complete a task with a data table to determine if the relationship is proportional or not. For example, the problem states, “The entrance to a state park costs \$6 per vehicle plus \$2 per person in the vehicle.” Students calculate the cost in a data table of 2, 4, 10, and 50 people entering the park in one vehicle (LSSM 7.RP.A.2). In Unit 6, Activity 7.2, students match balanced hangers to equations such as $6 = 2x + 3$ (LSSM 7.EE.B.4.a). Students find the solution and use the hanger to explain what the solution means. Students make the connection between moving items on both sides of the hanger and solving the equation using subtraction and division on both sides. During the Lesson Syntheses, students work with a partner to draw a corresponding hanger diagram for the equation $4x + 6 = 9.2$. Then, one partner</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>solves by reasoning about the equation, the other solves by reasoning about the diagram. In Unit 6, Lesson 22 students take turns matching equivalent expressions such as $(5x + 9y) + (3x + 7y)$ and $12(x + y)$ (LSSM 7.EE.A.1). One partner explains why the solution and the expression are equivalent. If the other partner disagrees, then the students must discuss to come to a consensus.</p>
	<p>5d) Support for English Language Learners and other special populations is provided. The language in which problems are posed is not an obstacle to understanding the content, and if it is, additional supports (suggestions for modifications, “vocabulary to preview”, etc.) are included.</p>	<p>Yes</p>	<p>Materials include support for English Learners (EL) and other special populations. Supports and practices are embedded in the materials to help teachers support ELs by addressing the “specialized academic language demands in math.” In addition, supports and practices to support students with disabilities are also embedded in the lesson activities. Each Unit Overview includes a Progression of Language Development. Language goals are embedded in lessons and activities and describe the language demands of the lesson. Additionally, Math Language Routines are embedded throughout the materials to support all students, but specifically ELs, and include: MLR: Stronger and Clearer Each Time; MLR 2: Collect and Display; MLR 3: Clarify, Critique, Correct; MLR 4: Information Gap; MLR 5: Co-Craft Questions; MLR 6: Three Reads; MLR 7: Compare and Connect; and MLR 8: Discussion Supports. For example, in Unit 5, Lesson 3, Activity 3.2, add</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>positive and negative numbers by completing two tables and answering questions about elevation. Support for ELs states, “Speaking, Listening, Writing: MLR 1 Stronger and Clearer Each Time. To provide students with an opportunity to generalize about the sum of two addends, ask students to draft an initial response to the question “How can you tell from the equation whether the sum will be positive, negative, or 0?” Ask students to meet with 2-3 partners for feedback. Provide students with prompts for feedback that will help each other strengthen their ideas and clarify their language. Students can borrow ideas and language from each partner to refine their explanation. This will help students to use mathematical language to generalize about the sums of rational numbers.” In Unit 2, Lesson 10, Activity 10.2, students use a table of values to determine the meaning of the variables and whether or not the relationship is proportional and plot the points on the graph. For ELs, the material suggests students or teachers “act out scenarios using gestures, and talk about the context of selling T-shirts or cherries.” To support students with disabilities, the materials suggest that teachers allow students who struggle with fine motor skills to dictate graphing points.</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
<p>6. QUALITY OF ASSESSMENTS: Materials offer assessment opportunities that genuinely measure progress and elicit direct, observable evidence of the degree to which students can independently demonstrate the assessed grade-specific Louisiana Student Standards for Mathematics.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Required 6a) Multiple assessment opportunities are embedded into content materials and measure student mastery of standards that reflect the balance of the standards as presented in materials.</p>	<p>Yes</p>	<p>Multiple assessment opportunities are embedded into content materials that measure student mastery of standards that reflect the balance of the standards as presented in the materials. Each unit begins with a Pre-Diagnostic Assessment that assesses prerequisite skills and concepts in addition to skills and concepts of the upcoming unit. Lesson activities include expected student responses and potential misconceptions that support the teacher in adjusting instruction when necessary. Each lesson ends with a Cool Down that is used as a formative assessment that teachers can use to provide student feedback and/or make instructional decisions. Each lesson also includes a set of cumulative Practice Problems for additional practice. Longer units include a Mid-Unit Assessment to assess student learning of the unit lessons up to the point of administration. Finally, each unit includes an End-of-Unit Assessment to assess students on what they have learned at the end of a unit. All summative assessments, including the Pre-Unit Diagnostic, Mid-Unit Assessment, and End-of-Unit Assessment include solutions and standards alignment.</p>
	<p>Required 6b) Assessment items include a combination of tasks that require students to demonstrate conceptual understanding, demonstrate procedural skill and fluency, and apply mathematical reasoning and modeling in real world context. Assessment items</p>	<p>Yes</p>	<p>Assessment items include a combination of tasks that require students to demonstrate conceptual understanding, demonstrate skill and fluency, and apply mathematical reasoning and modeling in real world context. Assessment items</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	require students to produce answers and solutions, arguments, explanations, and models, in a grade/course-appropriate way.		require students to produce answers and solutions, arguments, explanations, and models, in a grade-appropriate way. On the Mid-Unit and End-of-Unit Assessment, problem types include multiple-choice, multiple response, matching, short answer, restricted constructed response, and extended response. For example, in Unit 2, End-of-the Unit Assessment, Problem 4, students analyze and interpret a graph with two lines that have different proportional relationships based on the amount of water and tank size to solve a problem. Students provide an explanation on which container size is filling more quickly, reflecting the conceptual understanding expectation of the standard (LSSM 7.RP.A.2b). In Unit 6, Mid-Unit Assessment assesses LSSM 7.EE.B.4a and aligns to all components of rigor. In Problem 7, students find cost solutions given the number of T-shirts sold, aligning to the rigor expectation of procedural skill and fluency and application. Problem 5 points to a common error when solving equations in $p(x + q) = r$ form. Students find and explain the error. In Problem 6, students compare two situations and decide which situation is best represented by $p(x + q) = r$ and $px + q = r$. Problems 5 and 6 address the conceptual understanding expectation.
	6c) Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and provide sufficient guidance for	Yes	Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<p>interpreting student performance, misconceptions, and targeted support to engage in core instruction.</p>		<p>provide sufficient guidance for interpreting student performance, misconceptions, and targeted support to engage in core instruction. For each Mid-Unit and End-of-Unit Assessment, each item includes the assessed LSSM and correct solution. Constructed response items include a rubric with sample responses and the alignment of those sample responses to the following Tiers: “Minimal Tier 1 response: Work is complete and correct; with complete explanation or justification. Tier 2 response: Work shows general conceptual understanding and mastery, with some errors or correct work with insufficient explanation or justification; Tier 3 response: Significant errors in work demonstrate lack of conceptual understanding or mastery. The assessments do not include a clear rubric with point values for the teachers to interpret student results, but do include sample errors and correct answers that could be used as guidance on how to support students. For example, in the Unit 4 End-of-Unit Assessment, Problem 7, students solve commission and markup problems (LSSM 7.EE.B.3, LSSM 7.RP.A.3). In Part c, students solve the following problem: “Tyler’s brother earns \$12 per hour. The store offers him a raise - a 5% increase per hour. After the raise, how much will Tyler’s brother make per hour?” The rubric provides correct answers with</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>reasoning. A Tier 1 response indicates that “work is complete and correct, with complete explanation or justification” and includes the answer, \$12.60, as well as the written explanation, 5% of \$12 is \$0.60, so Tyler’s brother now makes \$12 + 0.60 dollars per hour. A Tier 2 response indicates that “work shows good conceptual understanding and mastery, with either minor errors or correct work with insufficient explanation or justification” such as “stating 60 instead of 60% for the markup without a very clear description that the 60 refers to 60%.” or “answering 0.60, the value of the raise, instead of the total after the raise.” A Tier 3 response indicates that “work shows a developing but incomplete conceptual understanding, with significant errors.”</p>
	<p>6d) Materials provide 2-3 comprehensive assessments (interims/benchmarks) that measure student learning up to the point of administration.</p>	<p>No</p>	<p>Materials do not provide comprehensive assessments that measure student learning up to the point of administration. The materials only include unit and lesson-level assessments including Cool Downs (exit tickets), Pre-Unit Diagnostic Assessments, Mid-Unit Assessments, and End-of-Unit Assessments.</p>
<p>7. ADDITIONAL INDICATORS OF QUALITY: Materials are well organized and provide teacher guidance for units and lessons. Materials provide timely supports to target specific skills/concepts to</p>	<p>Required 7a) The content can be reasonably completed within a regular school year and the pacing of content allows for maximum student understanding. The materials provide guidance about the amount of time a task might reasonably take.</p>	<p>Yes</p>	<p>The content can be reasonably completed within a regular school year and the pacing of content allows for maximum student understanding. Based on the Grade 7 Course Guide and the pacing calendar, the course will take approximately 36 weeks to complete all the units, as well as the pre-unit</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
<p>address students' unfinished learning in order to access grade-level work.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>			<p>diagnostic, and mid- and end-of-unit assessments. Based on the structure of the lesson, teachers can accomplish one lesson a day. The lesson materials are broken down into chunks, including a Warm-up, classroom activities, Lesson Synthesis, and a Cool Down. The materials include a total of 144 lessons for core instruction, including optional lessons. For example, Unit 2 takes approximately 15 days to complete. Unit 3 takes approximately 11 days to complete. Unit 4 takes approximately 16 days to complete.</p>
	<p>Required 7b) The materials are easy to use and well organized for students and teachers. Teacher editions are concise and easy to manage with clear connections between teacher resources. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help prompt student thinking, and expected student outcomes.</p>	<p>Yes</p>	<p>The materials are easy to use and well organized for students and teachers. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help prompt student thinking, and expected student outcomes. Each unit begins with an Overview that includes a Progression of Disciplinary Language that notes which lesson the students encounter the language. The units are further broken down into lessons that include the overall Learning Goals, Student Learning Goals, Student Learning Target, Required Materials, Required Preparation, Word and PDF lesson material downloads, and Standards Alignment for that lesson. The Word and PDF downloads consist of materials such as Student Task Statements, Practice Problems, and Cool Downs. The Lesson Standards Alignment includes the standard(s) addressed in the lesson, as</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>well as Building On and Building Towards standards, when applicable. A Lesson Narrative is provided at the start of each lesson that includes the purpose of the lesson, student expectations, possible connections to prior or future learning, and any additional guidance needed for the lesson. The teacher materials provide guidance for lesson delivery, instructional routines, Support for Students with Disabilities, Support for English Learners, sample student responses, anticipated misconceptions, and a synthesis for each activity. The Course Guide provides additional guidance such as About These Materials, How to Use These Materials, Assessments Overview, Scope and Sequence, Standards by Lesson, Lessons by Standard, Glossary, and Required Materials. Supports are embedded in the teacher materials at the lesson level providing ease of use for instructing and supporting students. Each Unit includes quick access tabs to an Overview, a dropdown for all lessons within the unit, Assessments, Family Materials, and Unit Downloads. At the lesson level, teachers can quickly access all parts of the lesson including Preparation, Warm-up, Activities, Lesson Synthesis, Cool Down, Glossary Terms, and Practice Problems.</p>
	<p>Required 7c) Materials include unit and lesson study tools for teachers, including, but not limited to, an explanation of the mathematics of each unit and mathematical point of</p>	<p>Yes</p>	<p>Materials include unit and lesson study tools for teachers. The Unit Overview includes a detailed explanation for teachers about the connections to</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<p>each lesson as it relates to the organizing concepts of the unit and discussion on student ways of thinking and anticipating a variety of student responses.</p>		<p>previous grade levels along with an explanation of how the unit develops the standards. The Unit Overview provides an explanation of the mathematics addressed in the unit including mathematical representations used within and across the lessons, concepts and skills the students will develop and/or practice, and examples of what students will learn across the lessons. The Unit Overview also includes a Progression of Disciplinary Language that details the disciplinary language teachers should anticipate students using for mathematical purposes. Each term includes examples and the associated lessons the language will be used. This section is followed by a chart that details new terminology for the unit. The chart shows “where the new terminology is first introduced, including when students are expected to understand the word or phrase receptively and when students are expected to produce the word or phrase in their own speaking and writing.” By reviewing the Unit Overview prior to teaching the unit, teachers develop an understanding of the unit progression, how the unit connects back to previous learning, as well as how disciplinary language progresses through the unit. Each lesson includes a Lesson Narrative that explains the mathematical content of the lesson and how it is placed in the learning sequence, the meaning of any new terms introduced in the lesson,</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>and how the mathematical practices are developed and utilized, as appropriate. Additionally, the activities also include a narrative that explains the mathematical purpose of the unit and how it is placed in the learning sequence, what students do during the activity, student look-fors and possible misconceptions, and connections to the practice standards. By reviewing the Lesson and Activity Narratives, teachers develop an understanding of what students are expected to know and do, struggles that may occur, and suggestions to support all students.</p>
	<p>7d) Materials identify prerequisite skills and concepts for the major work of the grade/course, connected to the current on-grade/course-level work.</p>	<p>Yes</p>	<p>Materials identify prerequisite skills and concepts for the major work of the grade. Each unit includes a Pre-Unit Diagnostic Assessment that assesses prerequisite skills and concepts along with a few items addressed within the unit. Each item includes the standard(s) addressed, noting the prerequisite standards the students need to access grade-level work within the unit. The Unit Overview also includes the prerequisite knowledge students should have developed prior to the unit in order to build upon and extend their learning with grade-level work. Lesson Warm-ups are often used to recall prior knowledge in order to connect previous learning to current learning. For example, in the Unit 1 Pre-Unit Diagnostic Assessment, Problem 1, students convert from centimeters to meters and meters to kilometers fluently (LSSM 4.MD.A.1).</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>Guidance for the problem states that throughout Unit 1, “students work with length and area in a variety of contexts” and that students “need to know how to convert units fluently and efficiently.” Each question builds with complexity until grade-level content is reached to identify the learning gaps that need to be addressed. Additional items in the assessment address LSSM 5.MD.A.a, 5.NF.B.5a, 6.G.A.1, 6.EE.A.2.c, 6.RP.A.3a, and 7.G.A.1. Each item provides an explanation of why this prerequisite knowledge is essential to the unit. In Unit 5, students work with rational number arithmetic. The Unit Overview states that in Grade 6 students learned about positive and negative numbers and their location on a number line. The unit begins by revisiting work from Grade 6 including representing elevation, opposites, and absolute value using signed numbers before moving on to rational number arithmetic (LSSM 7.NS.A.1c).</p>
	<p>7e) Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, on-grade/course-level work.</p>	<p>Yes</p>	<p>Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, on grade-level work. Each unit begins with a Pre-Unit Diagnostic Assessment that assesses prerequisite skills necessary for the unit. Each assessment problem identifies the targeted prerequisite standard and explains why the prerequisite skill is necessary for the grade-level topic.</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Teachers can use the assessment results to identify students who need prerequisite work to successfully engage in core instruction.
	<p>7f) Materials provide targeted, aligned, prerequisite work for the major work of the grade/course, directly connected to specific lessons and units in the curriculum.</p>	No	Materials do not provide targeted, aligned, prerequisite work for the major work of the grade, directly to specific lessons and units in the curriculum. While the Pre-Unit Diagnostic Assessment identifies students who need prerequisite work, the materials do not provide the work for students. Instead, guidance states, “Look for opportunities within the upcoming unit where the target skill could be addressed in context. For example, an upcoming task might require fraction addition. Ask a student who can do the skill to present their method, then attend carefully to students as they work through the task. If difficulty persists, add more opportunities to practice the skill, by adapting tasks or practice problems. The Lessons By Standard chart can assist in identifying opportunities available for students to engage with challenging concepts identified by the Pre-unit Diagnostic Assessment results.”
	<p>7g) Materials provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.</p>	No	Materials do not provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
FINAL EVALUATION			
<i>Tier 1 ratings</i> receive a “Yes” for all Non-negotiable Criteria and a “Yes” for each of the Additional Criteria of Superior Quality.			
<i>Tier 2 ratings</i> receive a “Yes” for all Non-negotiable Criteria, but at least one “No” for the Additional Criteria of Superior Quality.			
<i>Tier 3 ratings</i> receive a “No” 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-negotiable Criteria of Superior Quality⁴	1. Focus on Major Work	Yes	Materials devote a large majority of time to the major work of the course. Materials spend minimal time on content outside of the appropriate grade level. In assessment materials, assessment components do not make students responsible for any topics before the grade in which they are introduced.
	2. Consistent, Coherent Content	Yes	Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year. Materials include problems and activities that connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important.
	3. Rigor and Balance	Yes	Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in the standards. Materials are designed so that students attain the fluencies and procedural skills required by the standards. Materials are designed so that students spend sufficient time working with engaging applications. It is

⁴ Must score a “Yes” for all Non-negotiable Criteria to receive a Tier I or Tier II rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			evident in the materials that the three aspects of rigor are not always treated together and are not always treated separately.
	4. Focus and Coherence via Practice Standards	Yes	Materials attend to the full meaning of each practice standard. Each practice standard is connected to grade/course-level content in a meaningful way and is present throughout the year in assignments, activities, and/or problems. Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade/course-level mathematics that is detailed in the content standards. Materials explicitly attend to the specialized language of mathematics. Mathematical language is emphasized throughout the lessons within each mission. Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development.
II: Additional Alignment Criteria and Indicators of Superior Quality⁵	5. Alignment Criteria for Standards for Mathematical Content	Yes	Materials provide all students with extensive work with grade-level problems. Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge is extended to accommodate the new knowledge, building to core instruction, on grade-level work. Lessons are

⁵ Must score a "Yes" for all Additional Criteria of Superior Quality to receive a Tier I rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			appropriately structured and scaffolded to support student mastery. There is variety in what students produce. Support for English Learners and other special populations is provided.
	6. Quality of Assessments	Yes	Multiple assessment opportunities are embedded into content materials and measure student mastery of standards that reflect the balance of the standards as presented in materials. Assessment items include a combination of tasks that require students to demonstrate conceptual understanding, demonstrate procedural skill and fluency, and apply mathematical reasoning and modeling in real-world context. Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and provide sufficient guidance for interpreting student performance, misconceptions, and targeted support to engage in core instruction. However, materials do not provide comprehensive assessments that measure student learning up to the point of administration.
	7. Additional Indicators of Quality	Yes	The content can be reasonably completed within a regular school year and the pacing of content allows for maximum student understanding. The materials are easy to use and well organized for students and teachers. Materials include unit and lesson study tools for teachers. Materials provide targeted, aligned, prerequisite work for the major work of

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			<p>the grade/course, directly connected to specific lessons and units in the curriculum. Materials identify prerequisite skills and concepts for the major work of the grade. Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, on-grade-level work. However, materials do provide targeted, aligned, prerequisite work for the major work of the grade, directly connected to specific lessons and units in the curriculum. Materials do not provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.</p>
<p>FINAL DECISION FOR THIS MATERIAL: <u>Tier 1, Exemplifies quality</u></p>			

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: **Open Up Resources Math 2nd Edition**

Grade/Course: **8**

Publisher: **Open Up Resources**

Copyright: **2019**

Overall Rating: **Tier 1, Exemplifies quality**

Tier 1, Tier 2, Tier 3 Elements of this review:

STRONG	WEAK
1. Focus on Major Work (Non-negotiable)	
2. Consistent, Coherent Content (Non-negotiable)	
3. Rigor and Balance (Non-negotiable)	
4. Focus and Coherence via Practice Standards (Non-negotiable)	
5. Alignment Criteria for Standards for Mathematical Content	
6. Quality of Assessments	
7. Indicators of Quality	

To evaluate instructional materials for alignment with the standards and determine tiered rating, begin with

Section I: Non-negotiable Criteria.

- Review the **required**¹ Indicators of Superior Quality for each **Non-negotiable** criterion.
- If there is a “Yes” for all **required** Indicators of Superior Quality, materials receive a “Yes” for that **Non-negotiable** Criterion.
- If there is a “No” for any of the **required** Indicators of Superior Quality, materials receive a “No” for that **Non-negotiable** Criterion.
- Materials must meet **Non-negotiable** Criterion 1 and 2 for the review to continue to **Non-negotiable** Criteria 3 and 4. Materials must meet all of the **Non-negotiable** Criteria 1-4 in order for the review to continue to Section II.
- If materials receive a “No” for any **Non-negotiable** Criterion, a rating of Tier 3 is assigned, and the review does not continue.

If all Non-negotiable Criteria are met, then continue to **Section II: Additional Criteria of Superior Quality.**

- Review the **required** Indicators of Superior Quality for each criterion.
- If there is a “Yes” for all **required** Indicators of Superior Quality, then the materials receive a “Yes” for the additional criteria.
- If there is a “No” for any **required** Indicator of Superior Quality, then the materials receive a “No” for the additional criteria.

Tier 1 ratings receive a “Yes” for all Non-negotiable Criteria and a “Yes” for each of the Additional Criteria of Superior Quality.

Tier 2 ratings receive a “Yes” for all Non-negotiable Criteria, but at least one “No” for the Additional Criteria of Superior Quality.

Tier 3 ratings receive a “No” for at least one of the Non-negotiable Criteria.

¹ **Required Indicators of Superior Quality** are labeled “**Required**” and shaded yellow. Remaining indicators that are shaded white are included to provide additional information to aid in material selection and do not affect tiered rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
Section I: Non-negotiable Criteria of Superior Quality: Materials must meet Non-negotiable Criteria 1 and 2 for the review to continue to Non-negotiable Criteria 3 and 4. Materials must meet all of the Non-negotiable Criteria 1-4 in order for the review to continue to Section II.			
<p>Non-negotiable 1. FOCUS ON MAJOR WORK²: Students and teachers using the materials as designed devote the large majority³ of time to the major work of the grade/course.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Required 1a) Materials devote the majority of class time to the major work of each grade/course.</p>	<p>Yes</p>	<p>Materials devote a larger majority of time to the major work of eighth grade. Of the 124 instructional lessons, 80% are spent on major work of the grade. Specifically, 69% of lessons are spent on major standards, 11% of lessons are spent on a combination of major standards and supporting/additional standards, and 20% of lessons are spent on supporting or additional standards. Unit 9 includes two optional lessons.</p>
	<p>Required 1b) Instructional materials, including assessments, spend minimal time on content outside of the appropriate grade/course during core math instruction. Content beyond grade/course-level should be clearly labeled as optional.</p>	<p>Yes</p>	<p>Materials spend minimal time on content outside of the appropriate grade level during core math instruction. In assessment materials, assessment components do not make students/teachers responsible for any topics before the grade in which they are introduced. The lessons that go beyond the scope of the Grade 8 Louisiana State Standards for Mathematics (LSSM) are clearly marked as optional. The Louisiana Implementation Guide notes specific tasks within Unit 1 and Unit 2 as optional. For Unit 1, Lesson 12, guidance states, “Specific tasks in Lesson 12 (Activity 3 question 5) can be used as enrichment or are optional as they go beyond the scope</p>

² For more on the major work of the grade, see [Focus by Grade Level](#).

³ 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%.

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			<p>of standard 8.G.3 regarding rotations about points other than the origin and /or reflections over lines other than the x- and y-axis." For Unit 2, Lessons 4 and 12, guidance states, specific tasks in Lesson 4 (Activity 3, questions 1, 2, and 6) and Lesson 12 (Activity 3, all questions) can be used as enrichment or are optional as they go beyond the scope of the standard with rotations about points other than the origin, dilations using a center other than the origin, and /or reflections over lines other than the x- and y-axis." Unit 9, Lessons 1 and 2 are labeled as optional, but all standards addressed in the unit are addressed in prior units. The unit provides "students a chance to go more deeply and apply Grade 8 mathematics to a real-world context." For example, in Unit 9, Lesson 2, Activity 4 students engage in an exploration of tessellations. The lesson introduces students to a regular tessellation of the plane who then determines which shapes will tessellate (LSSM 8.G.A). All other lessons relate to grade-level work and align to the Grade 8 LSSM. Warm-ups spend minimal time on content outside of the appropriate grade level to help students recall prior knowledge or to provide fluency practice. The teacher lesson materials indicate Building On standards from previous grade levels. For example, Unit 4 addresses LSSM 8.EE.C.7 and builds on LSSM 7.NS.A.1. During Activity 1.1, the Warm-up</p>

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			introduces students to a number line diagram that represents adding and subtracting integers as it builds on from LSSM 7.NS.A.1. In Activity 1.2, students solve a puzzle, show their thinking, and represent the scenario using number lines, tape diagrams, and equations (LSSM 8.EE.C.7). Assessment items make students responsible only for topics appropriate to the requirements for the grade. For example, each question of the Unit 4 End-of-Unit Assessment aligns directly to LSSM 8.EE.C which is addressed in Unit 4. For example, Problem 3 of the assessment gives students a graph for one of the equations of a system. Students are given the solution and six additional equations. Students determine which equations could be the other equation of the system (LSSM 8.EE.C.8.a).
<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.</p>	<p>Yes</p>	<p>Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year. Culminating lessons are provided to connect major and supporting content. Major work is often developed and then reinforced in lessons that address supporting standards. For example, Unit 5, Lesson 8 connects supporting LSSM 8.F.B.4 to major LSSM 8.F.A.2 and 8.F.A.3. Students first engage with LSSM 8.F.A.2 and 8.F.A.3 in Unit 5, Lesson 7. This major work is reinforced in Lesson 8. In Lesson 8, Activity 2, students write equations and graph proportional</p>

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			<p>relationships. For example, students write an equation to convert feet to yards. They graph the proportional relationship and give two input-output pairs (LSSM 8.F.A.3, 8.F.A.4). Then, Activity 3 provides the following information: “There are four tanks of water. The amount of water in gallons, A, in Tank A is given by the function $A=200 + 8t$, where t is in minutes. The amount of water in gallons, B, in Tank B starts at 400 gallons and is decreasing at 5 gallons per minute. These functions work when $t>0$ and $t\leq 80$. Students respond to questions such as, “Which tank started out with more water?” “Write an equation representing the relationship between B and t.” “One tank is filling up. The other is draining out. Which is which? How can you tell?” and “The graph of the function for the amount of water in gallons, D, in Tank D at time t is shown. Is it filling up or draining out? How do you know?” (LSSM 8.F.A.2, A.F.A.3, 8.F.B.4). Unit 6, Lesson 6 connects supporting LSSM 8.SP.A.3 to major LSSM 8.EE.B.6. LSSM 8.EE.B.6 is first developed in Unit 3, then reinforced in this lesson. In the Warm-up, students estimate the slope of a line given several that are close to but not on the line. Students share results and explain their reasoning. A slope triangle is drawn with a horizontal distance of one to review that the vertical distance is the slope (LSSM 8.EE.B.6). Connections are made to slope throughout the lesson. In Activity 3,</p>

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			students view a scatter plot and linear model of car price and mileage. Students discuss the meaning of slope in the context of this problem. Students work through two additional problems answering the questions, “What is the slope of the line in the scatter plot for each situation and What is the meaning of the slope in that situation?” (LSSM 8.SP.A.3).
	<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.</p>	Yes	Materials include problems and activities that connect two or more clusters in a domain and/or two or more domains in the grade level where these connections are natural and important. For example, Unit 3, Lesson 12 connects Clusters B (Understand the connections between proportional relationships, lines, and linear equations) and C (Analyze and solve linear equations and pairs of simultaneous linear equations) of the Expressions and Equations (EE) domain as students create graphs and equations in the form $Ax + By = C$ that represent a linear relationship and understand what the solution to a two-variable equation is. The task in Activity 12.2 states that in a market, apples cost \$1 each and oranges cost \$2. Students write an equation to represent possible purchases with \$10 using two variables (LSSM 8.EE.B). In Activity 12.3, students write an equation to represent a relationship between two quantities, find pairs of numbers that make it true and pairs of numbers that do not make it true,

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			<p>and then graph both sets of points. Students determine that the graph of a linear equation is the set of solutions with the points whose coordinates make it true (LSSM 8.EE.C). Unit 5, Lesson 5, connects Clusters A (Define, evaluate, and compare functions) and B (Use functions to model relationships between quantities) of the Functions (F) domain as they begin to analyze graphs of functions and use them to answer questions in context, which addresses LSSM 8.F.A.1 and builds towards LSSM 8.F.B.5. In Activity 5.1, students observe four graphs, determine which doesn't belong, and explain their reasoning. As students notice features of the graphs to determine which one doesn't belong, they provide reasoning such as, "B doesn't belong because it is the only one that is not a function" and "D doesn't belong because it is the only one made of discrete points or because it is the only graph with two distinct intervals where it is decreasing."</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.</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 featuring high-quality conceptual problems and discussion questions.</p>	<p>Yes</p>	<p>Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in the standards. The instructional materials develop conceptual understanding of grade-level content through scaffolds, conceptual problems, and discussion questions throughout each lesson. In addition, students use various models and representations, such as diagrams, graphs, number lines, and</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			<p>equations to build conceptual understanding over time. For example, in Unit 1, students develop conceptual understanding within the Geometry (G) domain. Lessons 1-11 focus on LSSM 8.G.A.1a, LSSM 8.G.A.1b, and LSSM 8.G.A.1c. Throughout the module, students use grids, tracing paper, and technology while they experimentally verify the properties of translations, rotations, and reflections to develop conceptual understanding. For example, in Lesson 8, Activity 2, students use a grid to create segment AB and a point not on AB, labeled C. Students rotate the segment 180 degrees around point A and around point B. After experimentation, students explain what happens when a segment is rotated 180 degrees (LSSM 8.G.A.1a). In Lesson 9, Activity 2, students use tracing paper to perform rigid transformations on three parallel lines placed on a grid. Through experimentation, students answer questions such as, “Reflect lines a and b across line h. What do you notice about the changes that occur to lines a and b after the reflection?” and “What is the same in the original and the image?” Students perform a series of translations of parallel lines and respond to questions such as, “What do you notice about the changes that occur to lines and after the translation?” and “What is the same in the original and the image?” (LSSM 8.G.A.1c). Students understand that, under the three</p>

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			<p>rigid transformations, images of parallel lines are parallel to the original. In Unit 1, Lesson 16, Activity 16.2, students apply 180 degree rotations to a triangle in order to calculate the sum of its three angles by using the structure of a coordinate grid. Using an applet, students measure angle ACB in the triangle and learn that the sum of the interior angles is equal to 180 degrees (LSSM 8.G.A.5). In Activity 16.3, students extend this understanding that the sum of the alternate interior angles is equal to 180 degrees as they determine that alternate interior angles are the same angle when looking at triangle ABC that touches line DE and a parallel line AC (LSSM 8.G.A.5). In Unit 2, Lesson 10, Activity 10.2, students manipulate an applet of two triangles along a line to line up one triangle with the other. Students describe the transformations and relate that the slope is the same between the two triangles (LSSM 8.EE.B.6). In Unit 5, Lesson 1 and 2 focus on introducing students to the idea of functions. Students develop the concept of a “function as a rule that assigns to each allowable input exactly one output” (LSSM 8.F.A.1). In Lesson 1, Activity 1.2, Guess My Rule, students develop the idea of input-output rules as they engage in a partner activity with four rule cards. One partner tells their partner an input, the other partner uses the rule card and responds with the corresponding output, and the first</p>

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			<p>partner tries to guess the rule. In Activity 1.3, Making Tables, students observe and analyze various input-output diagrams that include the same input and output, but different rules. Students fill in tables with missing outputs and add two more input-output pairs to the table. Students develop an understanding that different rules can determine the same input-output pair. In Lesson 2, students learn the term function and connect function language to previous understanding of independent and dependent variables. In Activity 2.2, students develop the understanding of the structure of a function as something with only one output as they draw input-output diagrams for situations such as measurement conversions.</p>
	<p>Required 3b) Attention to Procedural Skill and Fluency: The materials are designed so that students attain the fluencies and procedural skills required by the content 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>Materials are designed so that students attain the fluencies and procedural skills required by the standards. Major standards give attention throughout the year to build fluency. Students build and consolidate conceptual understanding before shifting towards procedural skill and fluency. Fluency is provided throughout activities to build on previously taught skills and concepts. In addition, the materials include lessons that focus solely on procedural skill and fluency as called for by the standards. Every lesson begins with a Warm-up that either helps students prepare for the lesson or to provide students the</p>

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			<p>opportunity to strengthen their number sense and procedural skill. Warm-ups that focus on number sense and procedural skill prompt students to engage in “mental arithmetic or reason numerically or algebraically.” Each lesson includes an associated set of practice problems. The set includes a few problems from that day’s lesson along with a mix of topics from previous lessons. The materials include guidance that states, “Distributed practice (revisiting the same content over time) is more effective than massed practice (a large amount of practice on one topic, but all at once).” For example, in Unit 4, Lesson 6, Activity 6.1, students observe a triangle and a square. The triangle includes two side lengths of $2x$ and a base of $x - 8$. The square’s side length is $x + 2$. Given the information that the triangle and the square have equal perimeters, students find the value of x and the perimeter of the figures (LSSM 8.EE.C.7). Students continue to solve linear equations in one variable throughout the lesson and in the Practice Problems. For example, in Problem 1, students solve “$2b + 8 - 5b + 3 = -13 + 8b - 5$” and “$2c - 3 = 2(6 - c) + 7c$.” In addition, the Practice Problems also include a problem related to Unit 3, Lesson 4 intended for distributed practice. Students use data in a graph that is in a proportional relationship to complete the table, write an equation that represents the relationship between x</p>

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			<p>and y, and then graph the relationship (LSSM 8.EE.B.5). In Unit 3, students write an equation using two quantities and determine pairs of numbers that make and do not make the equation true. In Unit 3, students extend their understanding of one-variable linear equations as they write an equation using two quantities and determine pairs of numbers that make and do not make the equation true. For example, in Lesson 12, Activity 12.3, students write an equation to represent the situation, “You have two numbers. If you double the first number and add it to the second number, the sum is 10.” Students find 5 points that are solutions and 10 points that are not (LSSM 8.EE.C). Students practice 5 problems to continue to develop fluency with solving linear equations.</p>
	<p>Required 3c) Attention to Applications: Materials are designed so that teachers and students spend sufficient time working with engaging applications, including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content standards where expectations for multi-step and real-world problems are explicit.</p>	<p>Yes</p>	<p>Materials are designed so that students spend sufficient time working with engaging applications, including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade, afford opportunities for practice, and engage students in problem solving. Each unit includes activities that allow students to apply key concepts to solve real-world problems that can be found throughout the units embedded into activities within the lessons. For example, in Unit 3, Lesson 2, Activity 2.3, students solve the following</p>

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			<p>problem: “Two large water tanks are filling with water. Tank A is not filled at a constant rate, and the relationship between its volume of water and time is graphed on each set of axes. Tank B is filled at a constant rate of $\frac{1}{2}$ liters per minute. The relationship between its volume of water and time can be described by the equation $v = \frac{1}{2}t$, where t is the time in minutes and v is the total volume in liters of water in the tank.”</p> <p>Students sketch the label of the graph for tank B and determine what time both tanks have the same amount of water (LSSM 8.EE.B.5). Throughout Unit 5, using real-world contexts, students compare properties of two functions, each represented in a different way (LSSM 8.F.A.2). For example, in Lesson 7 Activity 7.2 students observe a table and a graph representing the temperature in two cities. Students interpret the graphs to decide, “How much greater was the highest recorded temperature in City B than the highest recorded temperature in City A during this time?” and “Compare the outputs of the functions when the input is 3” (LSSM 8.F.A.2). In Activity 7.4 students use a table and a verbal description to make sense of two representations of distance, one with a constant and one with a non-constant speed. Students answer questions such as “How long did it take Elena’s family to</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<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>travel as far as Andre’s family had traveled after 8 minutes?” (LSSM 8.F.A.2).</p> <p>It is evident in the materials that the three aspects of rigor are not always treated together and are not always treated separately. Lessons address the three components of rigor separately as well as together. For example, in Unit 5, Lesson 21, Activity 21.1 integrates all three aspects of rigor as expected of LSSM 8.G.C.9. Students solve the following problem: “Four students each calculated the volume of a sphere with a radius of 9 centimeters and they got four different answers. Han thinks it is 108 cubic centimeters. Jada got 108π cubic centimeters. Tyler calculated 972 cubic centimeters. Mai says it is 972π cubic centimeters. Do you agree with any of them? Explain your reasoning.” In Activity 22.3, students engage in an Information Gap activity in which they determine and request the information needed to answer the questions on their Problem Card related to volume equations of cylinders, cones, and spheres. For example, Problem Card 1 states, “The volume of the sphere is 288π cm³.” Teacher guidance states, “Students can calculate this value by finding the radius of the cone and then using the volume formula for a sphere, or they can use the fact that the volume of a sphere is twice that of the volume of a cone with the same dimensions” (LSSM 8.G.C.9). Unit 4, Lesson 13 focuses on</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>conceptual understanding. In Activity 13.1, students observe a graphical representation of a system of equations. Students show their understanding of solutions to systems by responding to the statement, “There are no values of x and y that make $y = -x + 10$ and $y = 2x + 4$ true at the same time.” Students reason that this statement is untrue since the equations intersect at a point. In Activity 13.2, students algebraically solve systems and use their understanding of solutions to systems to determine the reasonableness of responses (LSSM 8.EE.C.8a). Unit 5, Lesson 7, integrates conceptual understanding and application as students compare functions in different ways, look for similar context, interpret each representation (LSSM 8.F.A.2). In Activity 7.3, students analyze an equation and graph of volumes of two different objects. Students note that “The volume, V, of a cube with side length s is given by the equation $V=s^3$. The graph of the volume of a sphere as a function of its radius is shown.” Students make sense of the two functions as they compare inputs and outputs of both representations and answer questions such as “Is the volume of a cube with side length $s=3$ greater or less than a sphere with radius 3?” and “Compare the outputs of the two volume functions when the inputs are 2.”</p>
Non-negotiable	Required	Yes	Materials attend to the full meaning of each practice standard. Each practice

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<p>4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS: Aligned materials make meaningful and purposeful connections that promote focus and coherence by connecting practice standards with content that is emphasized in the Standards. Materials address the practice standards in a way to enrich and strengthen the focus of the content standards instead of detracting from them.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>4a) Materials attend to the full meaning of the practice standards. Each practice standard is connected to grade/course-level content in a meaningful way and is present throughout the year in assignments, activities, and/or problems.</p>		<p>standard is connected to grade-level content and is meaningfully present throughout the materials. Practice standards aid in students' transition from conceptual understanding to procedural skill and application. The materials provide students with an opportunity to engage with the practice standards in each lesson and support students in the development of mathematical practices, contributing to students' habits of mind. For example, In Unit 1, Lesson 1, Activity 1.2, students attend to precision (MP.6) as they describe the set of dance moves in an applet using language such as rotation and translation. The starting player chooses one of three applets and describes the dance moves to the other player. The other player identifies the dance being talked about. Students then write a description of the dance moves (LSSM 8.G.A.1). In Unit 1, Lesson 2, Activity 2.3, groups of three students sort a set of nine cards with rigid transformations. Students sort the cards based on whether they demonstrate a rotation, translation, or reflection. To refine their mathematical communication skills, students use clear and precise language (MP.6) to justify their categorization of each card (LSSM 8.G.A.1). In Unit 2, Lesson 2, Activity 2.2, students construct viable arguments and critique the reasoning of others (MP.3) when working with a dilation with a scale factor as a rule of operation on points on a</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>plane. For example, students solve the following problem: “The center of dilation is point P. What is the scale factor that takes the smaller circle to the larger circle? Explain your reasoning.” (LSSM 8.G.A). In Unit 3, Lesson 14, Activity 14.3 students contextualize to understand the meaning of a number as it relates to a problem (MP.2). The problem states, “The Fabulous Fish Market orders tilapia, which costs \$3 per pound, and salmon, which costs \$5 per pound. The market budgets \$210 to spend on this order each day.” Students define the variables and write an equation to represent this situation. Students list ways to determine solutions to the situation which requires interpretation of points on and off the graph (LSSM 8.EE.C.8a).</p>
	<p>Required 4b) Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade/course-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.</p>	<p>Yes</p>	<p>Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key course-level mathematics that is detailed in the content standards. The materials provide opportunities for students to engage in mathematical reasoning through viable arguments and critique student work and opportunities for students to discuss their thinking and reasoning for the strategies they used to solve problems throughout the materials. For example, in Unit 1, Lesson 2, Activity 2.3, Activity Synthesis, students share how they sorted their cards into categories and ask the class if they agree or disagree with</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>any of the choices. Students respond and justify their reasoning for agreeing or disagreeing (LSSM 8.G.A.1). The card activity leads to the introduction of the terms translation, rotation, and reflection. For example, in Unit 2, Lesson 7, Activity 7.2, students observe a square and rhombus and then read, “Priya says, ‘These polygons are similar because their side lengths are all the same.’ Clare says, ‘These polygons are not similar because the angles are different.’ Do you agree with either Priya or Clare? Explain your reasoning.” (LSSM 8.G.A.4). In Unit 3, Lesson 3, students use verbal or written explanations accompanied by graphs to construct arguments. In Activity 3.2, Launch, students use an equation and a blank set of axes to graph the following situation: “Jada and Noah counted the number of steps they took to walk a set distance. To walk the same distance, Jada took 8 steps and Noah took 10 steps.” Students explain how they know that the equation, description, graph, and table all represent the same situation (LSSM 8.EE.B.5). In Unit 4, students refine their mathematical communication skills by examining the work of others to find appropriate and inappropriate strategies. Activity 2, Launch, provides two different strategies to find a solution to the equation $14x - 2x + 3 = 3(5x + 9)$. Through observation, explanation, and justification, students determine both the distributive</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>property and factoring are appropriate strategies to use. Students examine another equation solved in two different ways. Students find the errors including incorrect combining of like terms (LSSM 8.EE.C.7). In Unit 7, Lesson 5, students extend their knowledge of rules they have developed with powers to a new situation with negative exponents. As students make sense of what negative exponents mean, they create viable arguments and critique the reasoning of others when comparing and contrasting exponents such as $(10^{-2})^{-3}$ and $(10^2)^{-3}$ (LSSM 8.EE.A.1).</p>
	<p>Required 4c) Materials explicitly attend to the specialized language of mathematics.</p>	<p>Yes</p>	<p>Materials explicitly attend to the specialized language of mathematics. Mathematical language is emphasized throughout the lessons within each unit. Typically, terms are not identified until students have the opportunity to learn about the concept and then formalize a definition. The materials include instructional routines intended to support students in mathematical language development, such as Information Gap, Algebra Talk. During Information Gap, one partner gets a Problem Card that does not have enough information, while the other student gets the data card relevant to the Problem Card. Students ask each other questions to determine the data needed to solve the problem. The materials use and encourage the use of accurate mathematical terminology when talking about skills, concepts, collusion, and</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>solution process. Embedded into each unit, students have opportunities to engage with mathematical language in answers, explanations, and during mathematical discourse. For example, Unit 3, Lesson 6 introduces the term, y-intercept. In Activity 2 students use information about the slope to match a line with a real-world situation. Students take note of where the line crosses the y-axis and what this intersection means in context (LSSM 8.EE.B). During Synthesis, students define the y-intercept as the point where the line crosses the y-axis. Students revisit the card match and identify the y-intercept in each situation. In Activity 6.3 students analyze the situation, “Lin has a summer reading assignment. After reading the first 30 pages of the book, she plans to read 40 pages each day until she finishes.” Students interpret the meaning of the vertical intercept and the slope in context (LSSM 8.EE.B). Unit 5, Lesson 1 introduces the concept of functions while the actual term is not introduced until Lesson 2 (LSSM 8.F.A.1). As the unit continues, students develop and expand on the definition as they work with different representations of functions. Activity 1.2 introduces students to the concept of input-output rules as they work in partners to determine the rule of input-output pairs. During the Activity Synthesis of Activity 1.3, students answer questions</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>such as, “What are some other situations when a rule might not have a valid input?” A sample student response states, “Any time an operation requires you to divide by 0, or when the input must be non-negative, such as a side length of a square when you know the area.”</p>
	<p>4d) There are teacher-directed materials that explain the role of the practice standards in the classroom and in students’ mathematical development.</p>	<p>Yes</p>	<p>Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students’ mathematical development. The teacher materials and Course Guide provide teachers with insight into which practice standards are utilized in the lessons and their role. This guidance is provided at the unit level in the Unit Overview and also provides teacher-directed guidance within the lesson materials with explanations to develop the practice standards. Instructional routines are embedded in the materials, some of which encourage the use and help students develop the math practices. For example, Clarify, Critique, Correct uses MP.3, Information Gap uses MP.6, Notice and Wonder often incorporates MP.7. For example, the Unit 6: Associates in Date Unit Overview provides several examples of where students utilize the practices. For example, the guidance states, “The unit begins with an investigation of a table of data. Measurements of a leg and perimeter of an isosceles right triangle are shown in each row, but column entries are not in order, making it hard to discern a</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>pattern. Students manipulate the data to look for patterns in the table (MP7), then examine a scatter plot of the same data. This motivates the need to use different representations of the same data to find and analyze any patterns.” Additionally, the guidance states, “The second section focuses on using scatter plots and fitted lines to analyze numerical data. Students make and examine scatter plots, interpreting points in terms of the quantities represented (MP2) and identifying scatter plots that could represent verbal descriptions of associations between two numerical variables (MP1). They see examples of how a line can be used to model an association between measurements displayed in a scatter plot and they compare values predicted by a linear model with the actual values given in the scatter plot (MP4).” In Unit 7, Lesson 1, students explain and use a rule for raising a power of 10 to a power. The Lesson Narrative states, “Students make use of repeated reasoning to discover the exponent rule $(10^n)^m = 10^{nm}$ (MP8)” and “Students reason abstractly and quantitatively when applying exponent rules, pausing to consider the meaning of quantities, not just how to compute them (MP2).”</p>
Section II: Additional Alignment Criteria and Indicators of Superior Quality			

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
<p>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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Required 5a) Materials provide all students extensive work with grade/course-level problems.</p>	<p>Yes</p>	<p>Materials provides all students extensive work with course-level problems. Students have the opportunity to learn new math and apply their new learning with extensive grade-level problems. Each lesson begins with a Warm-up to prepare students for the lesson or to strengthen students' number sense or procedural fluency. This is followed by one or more instructional activities that engage students in new learning or extend previous learning. After completing the activities, the teacher engages students in the Lesson Synthesis and facilitates a discussion to help students synthesize what they learned. Students then complete a Cool Down which serves as a brief summative assessment. Students end the lesson by applying their new learning in Practice Problems. For example, in Unit 5, Lesson 3, students find outputs from equations (LSSM 8.F.A.1 and 8.F.B.4). In the Warm-up, students fill in a table of input-output pairs for a given rule and then write an algebraic expression for the rule. In Activity 3.2, students make connections between different representations of functions by matching situations with input-output diagrams to generate equations. Students match descriptions with a diagram, write an equation for each description that describes the output as a function of the input, find the output when the input is 5 for each equation, and name the</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>independent and dependent variables of each equation. In Activity 3.3, students work with functions where either variable could be the independent variable. Students read a scenario and then answer six different questions. After synthesizing their learning, students engage in the Cool Down where they draw an input-output diagram, write an equation that represents the function, find the output when the input is 10, and identify the independent and dependent variables. Finally, students engage in four multi-part practice problems.</p>
	<p>Required 5b) Materials relate grade/course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge is extended to accommodate the new knowledge, building to core instruction, on grade/course-level work. Lessons are appropriately structured and scaffolded to support student mastery.</p>	<p>Yes</p>	<p>Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses and are designed so that prior knowledge is extended to accommodate new knowledge. Lessons are appropriately structured and scaffolded to support student mastery. Each lesson includes a Lesson Standards Alignment chart that includes Building on, Addressing, and Building toward standards. The Lesson Narrative gives a general description of the lesson with a connection to previous grade-level concepts. The Unit Overviews also makes connections to prior learning and describes how the unit extends this knowledge. For example, the Unit 3: Linear Relationships Unit Overview states that “Work with linear relationships in grade 8 builds on earlier work with rates and proportional relationships in grade 7,</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<p>Required 5c) There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade/course-appropriate way, arguments and explanations, diagrams, mathematical models, etc.</p>	<p>Yes</p>	<p>and grade 8 work with geometry.” In addition, the Overview states “In grades 6–8, students write rates without abbreviated units, for example as ‘3 miles per hour’ or ‘3 miles in every 1 hour.’ Use of notation for derived units such as mi/hr waits for high school—except for the special cases of area and volume. Students have worked with area since grade 3 and volume since grade 5. Before grade 6, they have learned the meanings of such things as sq cm and cu cm. After students learn exponent notation in grade 6, they also use cm^2 and cm^3.” The lessons in Unit 3 are scaffolded in such a way to make connections between unit rate, constant of proportionality, rate of change, and slope. Lesson 1 addresses LSSM 8.EE.B, and the Lesson Standards Alignment includes the Building on standard as LSSM 7.RP.A.2.</p> <p>In the materials, students produce answers in a variety of ways. Students model their thinking and solutions using various representations such as equations, diagrams, tables, graphs, and number lines. Throughout the lessons and activities, students provide explanations, arguments, and justifications for their solutions. For example, in Unit 2, Lesson 8, Activity 8.2, students use pasta to create a triangle given one angle measure and then given three measures. Students record measurements and find two others in the room who used the same angles. Students</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>compare the triangles and determine whether the triangles are similar. The materials suggest students engage in a gallery walk to see how the triangles differ. Students create a third triangle that has two congruent angles to the one given. Through observation, measurement and discussion students determine the triangles are similar (LSSM 8.G.A.5). In Unit 5, Lesson 4, Activity 4.2, students create graphs and justify their solution. During the Activity Synthesis, students share their explanations for the point (1, 49.6) for graph C, which is a linear graph with a negative slope (LSSM 8.F.A.1 and 8.F.A.3). In Unit 8, Lesson 6, students estimate the side lengths of two sets of triangles using grids and area. After recording the side length and side² in a table, students discuss what they notice about the values in the table for Triangle E but not for Triangles D and F. Students use the organization of a table to make use of structure to conclude that $a^2+b^2=c^2$ when working with right triangles (LSSM 8.G.B).</p>
	<p>5d) Support for English Language Learners and other special populations is provided. The language in which problems are posed is not an obstacle to understanding the content, and if it is, additional supports (suggestions for modifications, “vocabulary to preview”, etc.,) are included.</p>	<p>Yes</p>	<p>Materials include support for English Learners (EL) and other special populations. Supports and practices are embedded in the materials to help teachers support ELs by addressing the “specialized academic language demands in math.” In addition, supports and practices to support students with disabilities are also embedded in the lesson activities. Each Unit Overview</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>includes a Progression of Language Development. Language goals are embedded in lessons and activities and describe the language demands of the lesson. Additionally, Math Language Routines are embedded throughout the materials to support all students, but specifically ELs, and include: MLR: Stronger and Clearer Each Time; MLR 2: Collect and Display; MLR 3: Clarify, Critique, Correct; MLR 4: Information Gap; MLR 5: Co-Craft Questions; MLR 6: Three Reads; MLR 7: Compare and Connect; and MLR 8: Discussion Supports. In Unit 4, Lesson 7, Activity 7.2, students sort a variety of equations into categories based on their number of solutions. Students then fill in the blank side of an equation to make an equation that is always true and to make an equation that is never true. To support ELs, guidance states, “Representing: MLR 2 Collect and Display. As groups of students discuss how they sorted the equations, circulate and record the language students use to justify their decisions on a visual display. Ask students to describe the reasons for their selection, and to name what these equations have in common. Listen for phrases such as “variables with the same coefficient” or “the variable was eliminated.” Consider dividing the display into sections labeled “true for all values” and “true for no values,” and group words and phrases in the appropriate area. Remind students to</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>borrow language from the display as needed. This will help students use mathematical language to describe their reasoning and increase awareness about what these types of equations look like.”</p> <p>Guidance for students with disabilities states, “Conceptual Processing: Eliminate Barriers: Allow students to use calculators to ensure inclusive participation in the activity. Processing Time: Check in with individual students, as needed, to assess for comprehension during each step of the activity.</p>
<p>6. QUALITY OF ASSESSMENTS: Materials offer assessment opportunities that genuinely measure progress and elicit direct, observable evidence of the degree to which students can independently demonstrate the assessed grade-specific Louisiana Student Standards for Mathematics.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Required 6a) Multiple assessment opportunities are embedded into content materials and measure student mastery of standards that reflect the balance of the standards as presented in materials.</p>	<p>Yes</p>	<p>Multiple assessment opportunities are embedded into content materials that measure student mastery of standards that reflect the balance of the standards as presented in the materials. Each unit begins with a Pre-Diagnostic Assessment that assesses prerequisite skills and concepts in addition to skills and concepts of the upcoming unit. Lesson activities include expected student responses and potential misconceptions that support the teacher in adjusting instruction when necessary. Each lesson ends with a Cool Down that is used as a formative assessment that teachers can use to provide student feedback and/or make instructional decisions. Each lesson also includes a set of cumulative Practice Problems for additional practice. Longer units include a Mid-Unit Assessment to assess student learning of the unit lessons up to the point of administration. Finally,</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<p>Required 6b) Assessment items include a combination of tasks that require students to demonstrate conceptual understanding, demonstrate procedural skill and fluency, and apply mathematical reasoning and modeling in real world context. Assessment items require students to produce answers and solutions, arguments, explanations, and models, in a grade/course-appropriate way.</p>	<p>Yes</p>	<p>each unit includes an End-of-Unit Assessment to assess students on what they have learned at the end of a unit. All summative assessments, including the Pre-Unit Diagnostic, Mid-Unit Assessment, and End-of-Unit Assessment include solutions and standards alignment.</p> <p>Assessment items include a combination of tasks that require students to demonstrate conceptual understanding, demonstrate skill and fluency, and apply mathematical reasoning and modeling in real world context. Assessment items require students to produce answers and solutions, arguments, explanations, and models, in a grade-appropriate way. On the Mid-Unit and End-of-Unit Assessment, problem types include multiple-choice, multiple response, matching, short answer, restricted constructed response, and extended response. For example, in Unit 3, End-of-the Unit Assessment, Problems 1, and 3-7 assess LSSM 8.EE.B.5. Each item addresses portions of the standards and associated components of rigor. However, Problem 7 assesses all three components of rigor, which provides the following information “A cell phone plan costs \$200 to start. Then there is a \$50 charge each month.” Students then find the total cost to use the cell phone plan for one month, find the total cost for x months, graph the cost of the cell phone plan over a period of two years, and explain whether a proportional</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			relationship exists. In Unit 7, End-of-Unit Assessment, Problem 6, part a, students find the missing values in the equation, $2^2 \times 2^? = 2^0$, by applying properties of integer exponents to generate equivalent expressions (LSSM 8.EE.A.1). In Problem 7 students are given an estimate of the populations of Panama, Peru, and Thailand. Students use the population values given in scientific notation to plot the numbers on a number line and to determine if 20 times as many people live in Thailand than in Panama (LSSM 8.EE.A.3). Both problems align to the rigor expectation of conceptual understanding and procedural skill and fluency.
	<p>6c) Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and provide sufficient guidance for interpreting student performance, misconceptions, and targeted support to engage in core instruction.</p>	<p>Yes</p>	<p>Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and provide sufficient guidance for interpreting student performance, misconceptions, and targeted support to engage in core instruction. For each Mid-Unit and End-of-Unit Assessment, each item includes the assessed LSSM and correct solution. Constructed response items include a rubric with sample responses and the alignment of those sample responses to the following Tiers: “Minimal Tier 1 response: Work is complete and correct; with complete explanation or justification. Tier 2 response: Work shows general conceptual understanding and mastery, with some errors or correct work with insufficient</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>explanation or justification; Tier 3 response: Significant errors in work demonstrate lack of conceptual understanding or mastery. The assessments do not include a clear rubric with point values for the teachers to interpret student results, but do include sample errors and correct answers that could be used as guidance on how to support students. For example, in the Unit 6 End-of-Unit Assessment, Problem 6, students complete a frequency table, rounding to the nearest percent and then make a segmented bar graph to represent the data in the table (LSSM 8.SP.A.4). The rubric provides the solutions to the table and a completed bar graph. A Tier 1 response indicates that “work is complete and correct” in that the table is completed correctly and the segmented bar graph is accurate. A Tier 2 response indicates that “work shows good conceptual understanding and mastery, with some errors.” Sample errors include “percentages in table are nearly correct but wrong due to a calculation or rounding error; segmented bar graphs are inaccurate.” Acceptable errors include “segmented bar graph is correct based on incorrect percentages.” A Tier 3 response indicates “significant errors in work demonstrate lack of conceptual understanding or mastery.” Sample errors include: “a regular bar graph is drawn instead of a segmented bar graph;</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			percentages in table are wildly inaccurate, notably if outside 0-100% range or if using an incorrect total as the basis for the percentages.”
<p>7. ADDITIONAL INDICATORS OF QUALITY: Materials are well organized and provide teacher guidance for units and lessons.</p> <p>Materials provide timely supports to target specific skills/concepts to address students’ unfinished learning in order to access grade-level work.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Required 7a) The content can be reasonably completed within a regular school year and the pacing of content allows for maximum student understanding. The materials provide guidance about the amount of time a task might reasonably take.</p>	<p>Yes</p>	<p>The content can be reasonably completed within a regular school year and the pacing of content allows for maximum student understanding. Based on the Grade 8 Course Guide and the pacing calendar, the course will take approximately 36 weeks to complete all the units, and the pre-unit diagnostic, mid-, and end-of-unit assessments. Based on the structure of the lesson, teachers can accomplish one lesson a day. The lesson materials are broken down into chunks, including a Warm-up, classroom activities, Lesson Synthesis, and a Cool Down. The materials include a total of 126 lessons for core instruction, including optional lessons. For example, Unit 1 takes approximately 20 days to complete. Unit 4 takes approximately 18 days to complete. Unit 7 takes approximately 18 days to complete.</p>
	<p>Required</p>	<p>Yes</p>	<p>The materials are easy to use and well organized for students and teachers.</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<p>7b) The materials are easy to use and well organized for students and teachers. Teacher editions are concise and easy to manage with clear connections between teacher resources. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help prompt student thinking, and expected student outcomes.</p>		<p>Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help prompt student thinking, and expected student outcomes. Each unit begins with an Overview that includes a Progression of Disciplinary Language that notes which lesson the students encounter the language. The units are further broken down into lessons that include the overall Learning Goals, Student Learning Goals, Student Learning Target, Required Materials, Required Preparation, Word and PDF lesson material downloads, and Standards Alignment for that lesson. The Word and PDF downloads consist of materials such as Student Task Statements, Practice Problems, and Cool Downs. The Lesson Standards Alignment includes the standard(s) addressed in the lesson, as well as Building On and Building Towards standards, when applicable. A Lesson Narrative is provided at the start of each lesson that includes the purpose of the lesson, student expectations, possible connections to prior or future learning, and any additional guidance needed for the lesson. The teacher materials provide guidance for lesson delivery, instructional routines, Support for Students with Disabilities, Support for English Learners, sample student responses, anticipated misconceptions, and a synthesis for each activity. The Course Guide provides additional guidance such as About These</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Materials, How to Use These Materials, Assessments Overview, Scope and Sequence, Standards by Lesson, Lessons by Standard, Glossary, and Required Materials. Supports are embedded in the teacher materials at the lesson level providing ease of use for instructing and supporting students. Each Unit includes quick access tabs to an Overview, a dropdown for all lessons within the unit, Assessments, Family Materials, and Unit Downloads. At the lesson level, teachers can quickly access all parts of the lesson including Preparation, Warm-up, Activities, Lesson Synthesis, Cool Down, Glossary Terms, and Practice Problems.
	<p>Required 7c) Materials include unit and lesson study tools for teachers, including, but not limited to, an explanation of the mathematics of each unit and mathematical point of each lesson as it relates to the organizing concepts of the unit and discussion on student ways of thinking and anticipating a variety of student responses.</p>	Yes	Materials include unit and lesson study tools for teachers. The Unit Overview includes a detailed explanation for teachers about the connections to previous grade levels along with an explanation of how the unit develops the standards. The Unit Overview provides an explanation of the mathematics addressed in the unit including mathematical representations used within and across the lessons, concepts and skills the students will develop and/or practice, and examples of what students will learn across the lessons. The Unit Overview also includes a Progression of Disciplinary Language that details the disciplinary language teachers should anticipate students using for mathematical purposes. Each term includes examples and the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>associated lessons the language will be used. This section is followed by a chart that details new terminology for the unit. The chart shows “where the new terminology is first introduced, including when students are expected to understand the word or phrase receptively and when students are expected to produce the word or phrase in their own speaking and writing.” By reviewing the Unit Overview prior to teaching the unit, teachers develop an understanding of the unit progression, how the unit connects back to previous learning, as well as how disciplinary language progresses through the unit. Each lesson includes a Lesson Narrative that explains the mathematical content of the lesson and how it is placed in the learning sequence, the meaning of any new terms introduced in the lesson, and how the mathematical practices are developed and utilized, as appropriate. Additionally, the activities also include a narrative that explains the mathematical purpose of the unit and how it is placed in the learning sequence, what students do during the activity, student look-fors and possible misconceptions, and connections to the practice standards. By reviewing the Lesson and Activity Narratives, teachers develop an understanding of what students are expected to know and do, struggles that may occur, and suggestions to support all students.</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	<p>7d) Materials identify prerequisite skills and concepts for the major work of the grade/course, connected to the current on-grade/course-level work.</p>	<p>Yes</p>	<p>Materials identify prerequisite skills and concepts for the major work of the grade. Each unit includes a Pre-Unit Diagnostic Assessment that assesses prerequisite skills and concepts along with a few items addressed within the unit. Each item includes the standard(s) addressed, noting the prerequisite standards the students need to access grade-level work within the unit. The Unit Overview also includes the prerequisite knowledge students should have developed prior to the unit in order to build upon and extend their learning with grade-level work. Lesson Warm-ups are often used to recall prior knowledge in order to connect previous learning to current learning. For example, the Unit 1 Pre-Unit Diagnostic Assessment identifies the pre-requisite skills and concepts needed in order to access grade-level content. In Problem 2, students identify parallel and perpendicular lines (LSSM 4.G.A.1). Guidance for the problem states that “some students already have an intuitive understanding of what rotations are” and that “this item probes that understanding by having students identify orated images of a given triangle.” Each question builds with complexity until grade-level content is reached to identify the learning gaps that need to be addressed. Additional items address LSSM 4.G.A.1, 5.G.A.1, 6.G.A.3, 7.G.B.5, 7.G.A.2, 6.G.A.1, and 8.G.A. Each item provides an explanation of why this prerequisite</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>knowledge is essential to the unit. In Unit 5, students work with functions and volume. The Unit Overview states, “In the first three sections of the unit, students work with relationships that are familiar from previous grades or units (perimeter formulas, proportional relationships, linear relationships), expressing them as functions. In the remaining three sections of the unit, students build on their knowledge of the formula for the volume of a right rectangular prism from grade 7, learning formulas for volumes of cylinders, cones, and spheres.”</p>
	<p>7e) Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, on-grade/course-level work.</p>	<p>Yes</p>	<p>Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, on grade-level work. Each unit begins with a Pre-Unit Diagnostic Assessment that assesses prerequisite skills necessary for the unit. Each assessment problem identifies the targeted prerequisite standard and explains why the prerequisite skill is necessary for the grade-level topic. Teachers can use the assessment results to identify students who need prerequisite work to successfully engage in core instruction.</p>
	<p>7f) Materials provide targeted, aligned, prerequisite work for the major work of the grade/course, directly connected to specific lessons and units in the curriculum.</p>	<p>No</p>	<p>Materials do not provide targeted, aligned, prerequisite work for the major work of the grade, directly to specific lessons and units in the curriculum. While the Pre-Unit Diagnostic Assessment identifies students who need prerequisite</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			work, the materials do not provide the work for students. Instead, guidance states, “Look for opportunities within the upcoming unit where the target skill could be addressed in context. For example, an upcoming task might require fraction addition. Ask a student who can do the skill to present their method, then attend carefully to students as they work through the task. If difficulty persists, add more opportunities to practice the skill, by adapting tasks or practice problems. The Lessons By Standard chart can assist in identifying opportunities available for students to engage with challenging concepts identified by the Pre-unit Diagnostic Assessment results.”
	7g) Materials provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.	No	Materials do not provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.
FINAL EVALUATION			
<i>Tier 1 ratings</i> receive a “Yes” for all Non-negotiable Criteria and a “Yes” for each of the Additional Criteria of Superior Quality.			
<i>Tier 2 ratings</i> receive a “Yes” for all Non-negotiable Criteria, but at least one “No” for the Additional Criteria of Superior Quality.			
<i>Tier 3 ratings</i> receive a “No” 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-negotiable Criteria of Superior Quality⁴	1. Focus on Major Work	Yes	Materials devote a large majority of time to the major work of the course. Materials spend minimal time on content outside of the appropriate grade level. In assessment

⁴ Must score a “Yes” for all Non-negotiable Criteria to receive a Tier I or Tier II rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			materials, assessment components do not make students responsible for any topics before the grade in which they are introduced.
	2. Consistent, Coherent Content	Yes	Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year. Materials include problems and activities that connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important.
	3. Rigor and Balance	Yes	Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in the standards. Materials are designed so that students attain the fluencies and procedural skills required by the standards. Materials are designed so that students spend sufficient time working with engaging applications. It is evident in the materials that the three aspects of rigor are not always treated together and are not always treated separately.
	4. Focus and Coherence via Practice Standards	Yes	Materials attend to the full meaning of each practice standard. Each practice standard is connected to grade/course-level content in a meaningful way and is present throughout the year in assignments, activities, and/or problems. Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			concerning key grade/course-level mathematics that is detailed in the content standards. Materials explicitly attend to the specialized language of mathematics. Mathematical language is emphasized throughout the lessons within each mission. Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development.
II: Additional Alignment Criteria and Indicators of Superior Quality⁵	5. Alignment Criteria for Standards for Mathematical Content	Yes	Materials provide all students with extensive work with grade-level problems. Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge is extended to accommodate the new knowledge, building to core instruction, on grade-level work. Lessons are appropriately structured and scaffolded to support student mastery. There is variety in what students produce. Support for English Learners and other special populations is provided.
	6. Quality of Assessments	Yes	Multiple assessment opportunities are embedded into content materials and measure student mastery of standards that reflect the balance of the standards as presented in materials. Assessment items include a combination of tasks that require students to demonstrate conceptual understanding, demonstrate

⁵ Must score a "Yes" for all Additional Criteria of Superior Quality to receive a Tier I rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			<p>procedural skill and fluency, and apply mathematical reasoning and modeling in real-world context. Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and provide sufficient guidance for interpreting student performance, misconceptions, and targeted support to engage in core instruction. However, materials do not provide comprehensive assessments that measure student learning up to the point of administration.</p>
	<p>7. Additional Indicators of Quality</p>	<p>Yes</p>	<p>The content can be reasonably completed within a regular school year and the pacing of content allows for maximum student understanding. The materials are easy to use and well organized for students and teachers. Materials include unit and lesson study tools for teachers. Materials provide targeted, aligned, prerequisite work for the major work of the grade/course, directly connected to specific lessons and units in the curriculum. Materials identify prerequisite skills and concepts for the major work of the grade. Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, on-grade-level work. However, materials do provide targeted, aligned, prerequisite work for the major work of the grade, directly connected to specific lessons and units in the curriculum. Materials do not provide clear</p>

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.
FINAL DECISION FOR THIS MATERIAL: <u>Tier 1, Exemplifies quality</u>			

Instructional materials are one of the most important tools educators use in the classroom to enhance student learning. It is critical that they fully align to state standards—what students are expected to learn and be able to do at the end of each grade level or course—and are high quality if they are to provide meaningful instructional support.

The Louisiana Department of Education is committed to ensuring that every student has access to high-quality instructional materials. In Louisiana all districts are able to purchase instructional materials that are best for their local communities since those closest to students are best positioned to decide which instructional materials are appropriate for their district and classrooms. To support local school districts in making their own local, high-quality decisions, the Louisiana Department of Education leads online reviews of instructional materials.

Instructional materials are reviewed by a committee of Louisiana educators. Teacher Leader Advisors (TLAs) are a group of exceptional educators from across Louisiana who play an influential role in raising expectations for students and supporting the success of teachers. Teacher Leader Advisors use their robust knowledge of teaching and learning to review instructional materials.

The [2020-2021 Teacher Leader Advisors](#) are selected from across the state and represent the following parishes and school systems: Acadia, Ascension, Beauregard, Bossier, Caddo, Calcasieu, City of Monroe, Claiborne, Diocese of Alexandria, East Baton Rouge, Evangeline, Firstline Schools, Iberia, Iberville, Jefferson, Jefferson Davis, Jefferson Parish Charter, KIPP, Lafayette, Lafourche, Lincoln, Livingston, Louisiana Tech University, Louisiana Virtual Charter Academy, Lusher Charter School, Natchitoches, Orleans, Ouachita, Plaquemines, Pointe Coupee, Rapides, Richland, Special School District, St. Charles, St. Landry, St. Tammany, Tangipahoa, Tensas, Vermillion, Vernon, West Feliciana, and Zachary Community. This review represents the work of current classroom teachers with experience in grades 6-12.

Appendix I.

Publisher Response

The publisher had no response.

Appendix II.

Public Comments

There were no public comments submitted.